Atmospheric Sciences
Biogeosciences
Hydrological Sciences
Interdisciplinary Geosciences
Ocean Sciences
Planetary Sciences
Solar & Terrestrial Sciences
Solid Earth Sciences

Asia Oceania Geosciences Society
www.asiaoceania.org

16th Annual Meeting

AOGS

28 Jul- 2 Aug 2019

Singapore

AOGS... In Asia for Asia and the World

Asia Oceania Geosciences Society
www.asiaoceania.org

Session Proposal Closes 15 Oct 2019
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17th Annual Meeting

28 Jun to 4 Jul 2020

Vivaldi Park Ski Resort, Hongcheon

Supported By:
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AOGS... In Asia for Asia and the World

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Welcome to AOGS2019

16th Annual Meeting

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Geoscience Letters

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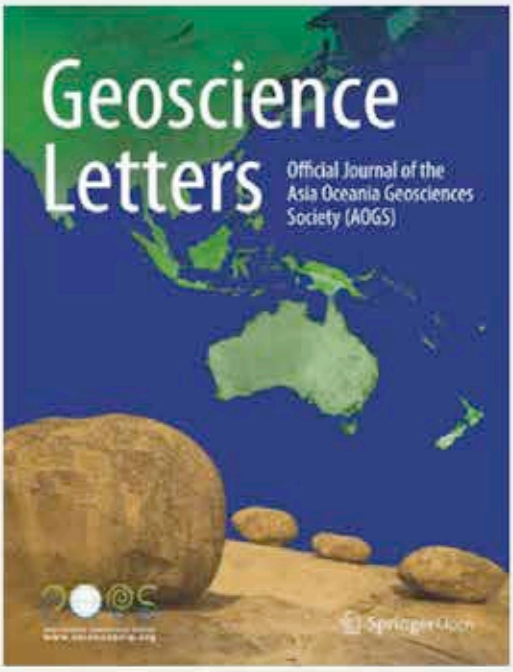

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WELCOME TO AOGS 2019!

MESSAGE FROM THE AOGS PRESIDENT

We live in challenging times. The rise of populism generates dialogues about protectionism, the denigration of the migrants and minority groups and the retreat from globalised networks. In a post-truth era, these discourses are often linked to climate change denial and a deep distrust of scientific expertise. In an era when solidarity will be sorely contested, how the Earth and space sciences make the case for scientific truth will be increasingly important. AOGS was established in 2003 with a mission to promote geosciences and recognise the applications of science for the benefit of humanity. During the course of fifteen previous annual meetings the membership has grown and the networks of scientific communities have matured. It was a particularly delight that the 'risk' of locating the meeting in Hawai'i last year, far from the Asian mainland, exceeded box office records with over 3300 participants from 49 countries and more than 3500 scientific presentations. In February 2018, AOGS also delivered its first topical event outside the annual conference series. A joint conference with the European Geophysical Union on Natural Hazards took place in the Philippines. I am pleased to report that a second conference on this theme, located in Indonesia, is now planned for next year.

We return once more to Singapore in a year of anniversaries. Our conference takes place just a few days after the 50th anniversary of the Apollo 11 lunar landing mission. We have many sessions and exhibits relating to the future of space mission and exploration and once again we are thrilled to host the NASA Hyperwall in the Exhibition Area. Please take the opportunity to listen to a talk, admire the imagery and imagine the future. The AOGS Council continues to develop strong and vibrant relationships with our fellow societies including our partnership with the Japan Geoscience Union.

This year is the centenary of the American Geophysical Union and a wide range of centennial events are shining a spotlight on different aspects of geosciences. There is also a Singapore anniversary being marked this year. Two hundred years ago, Stamford Raffles landed at the Singapore River to commence the establishment of the island as a free trade port. His statue gazes across the river opposite Boat Quay. Though the events of 1819 serve as an anniversary marker, it is recognised that the history and culture of Singapore and the region goes much further back of time and the significance of environment is woven into those histories. As we enjoy (or perhaps endure) the air-conditioning of the conference venue we can contemplate the enormous transformation of the physical environment of Singapore over the past two centuries and the grand challenges of creating liveable and sustainable cities. As the percentage of urban population in Asia approaches 50%, the significance of geosciences to deliver pragmatic solutions should not be underestimated.

The conference programme brings together some high profile plenary and section distinguished lectures, several special sessions and over 180 scientific sessions. The number of presentations and participants will exceed any previous Singapore meetings. It is also election year and I would like to thank the candidates for stepping forward to volunteer their time and enthusiasm to serve the society. This year we have a new e-voting procedure on site which should make it even easier than before to cast your vote and select fellow scientists to take the work of AOGS forward. Established three years ago to foster closer collaboration in Asia and especially within Asean, the AOGS Regional Advisory Committee will be exhibiting for the first time at the "AOGS Infinity" booth. Information on academic and student exchange programs and employment opportunities in China, Indonesia, Japan, Taiwan and South Korea will be on display here.

Wishing you a successful conference to catch up on the latest developments in your field, forge new friendships and networks and seek inspiration to use geoscience knowledge towards the solution of societal challenges. And while you are doing this enjoy the sounds, sights and culinary delights of Singapore.

David HIGGITT
AOGS President

AWARD

2019 AXFORD MEDALIST
Andrew P. ROBERTS

Professor, *Australian National University*

The Asia Oceania Geosciences Society (AOGS) is honored to present the 2019 Axford Medal to Professor Andrew P. Roberts, Australian National University (ANU), for "ground-breaking contributions and leadership in rock, paleo-, and environmental magnetism, and for mentorship of emerging researchers in Asia, Oceania, Europe, and the Americas."

Andrew Roberts enjoyed an Asian childhood. He was born in Japan to parents from New Zealand, and lived for seven years in Taiwan. This background conditioned him to enjoying extensive interaction with Asian collaborators throughout his career. Andrew's high-school and university education were in New Zealand. He earned his PhD from Victoria University of Wellington, followed by post-doctoral periods at the Centre des Faibles Radioactivités in Gif-sur-Yvette, France, and at the University of California, Davis, USA.

In 1996, Andrew obtained a faculty position at the University of Southampton, UK, where he built an environmental magnetism laboratory that attracted a global pool of talented young researchers, including many from Asia. Andrew trained and mentored them into highly successful academics, many of whom are now leaders in the discipline. Key breakthroughs made during that time include the development of environmental magnetism as a key discipline in paleoclimate and sediment-diagenetic reconstructions, development of first-order reversal curve (FORC) diagrams for characterizing the magnetic properties of natural materials, fundamental rock magnetic studies, including establishing the widespread importance of the mineral greigite in many environmental magnetic records, and development of important high-resolution reconstructions of wind-blown mineral dust inputs into marine sediments. Andrew served as Head of the School of Ocean and Earth Science at the University of Southampton and Associate Director of the National Oceanography Centre, Southampton, from 2005 to 2009.

In 2010, Andrew Roberts moved to Canberra, Australia, to become Director of the Research School of Earth Sciences at the Australian National University (ANU). There, he rebuilt a 50-year old paleomagnetism laboratory, which again attracted a global pool of talented young researchers, this time with an even higher proportion from Asia. Andrew also used this move to intensify collaborations with Asian colleagues, most notably in China, Japan, and Taiwan. For example, since 2010, he has collaborated with co-authors in 28 institutions in China alone. Andrew served a term as Dean of Physical and Mathematical Sciences (serving six Research Schools) at ANU from 2012 to 2017, during which time his research mentorship and leadership continued unabated. Key breakthroughs during his time at ANU to the present include advances in understanding and characterizing fine magnetic particle systems, including demonstrating the global importance of the mineral remains of magnetotactic bacteria in carrying sedimentary magnetic signals, providing critical chronological and environmental contributions to understanding African and Asian monsoon variability, documenting rapid geomagnetic field changes, and understanding sea-level variability through the last 5.3 million years. In 2018-2019, Andrew Roberts was seconded as an Excellent Researcher/Joint Appointed Fellow to the Geological Survey of Japan, National Institute of Advanced Industrial Science and Technology (AIST) in Tsukuba, Japan, where he led a major project pioneering the use of artificial intelligence in rock magnetism.

Professor Roberts is a highly committed leader and researcher with an incredibly broad network of international collaborations. Andrew is entirely dedicated to excellence, and has mentored a large cohort of academics toward highly successful careers. Those fortunate enough to work closely with Andrew for extended periods have been impressed daily by the amount of work he can get through without compromising on quality, especially when undertaking high-level managerial positions alongside a fully committed research pathway. It is this unrelenting commitment that has made Andrew into the international leader in his discipline that he is today.

Andrew's contributions have been acknowledged with several awards and honors, including: Excellent Researcher, AIST, Japan, 2018-2019; Honorary Fellow, Royal Society of New Zealand, 2013; Fellow, American Geophysical Union, 2013; Japan Society for the Promotion of Science Senior Invited Fellow, 2009-2010; Fellow, Royal Society of Arts (London), 2009; Philip Leverhulme Prize, 2001; U.S. National Science Foundation Antarctic Service Medal, 2000; Royal Society of New Zealand Young Scientists' Award, 1989.

Given his transformative, continuing research across Asia-Oceania and globally, the 2019 AOGS Axford Medal is a well-deserved distinction.

GENERAL ELECTION

The AOGS President, Secretary General, Treasurer, and Section Presidents for the term of 2020-2022 will be elected at the 16th General Meeting on 28 July to 2 August, 2019 in Singapore.

ANNOUNCEMENT
2019 General Election

E-Voting
Opens - Tue, 30-Jul @ 14:00
Closes - Fri, 02-Aug @14:30

Announce Results
Fri, 02-Aug, Nicoll Room
During AOGS2019 Closing
(Starts 13:30 with Axford Lecture)

Change Primary Section?
Update Profile on MARS?
Is Closed for Current Members
Is Open for First Time Attendee
(Must Be Non-Author/Presenter)

NEED HELP?
See AOGS2019 Help Desk

E- Voting Instructions
E-voting will take place during the AOGS2019 annual meeting. Only AOGS Members present are eligible.

1. Pick up your name badge. After this, you are automatically enabled for e-voting.
2. Launch internet browser by typing the MARS URL
   - Log-in with your email (and password)
   - Click "E-Voting" on the left menu
3. On the voting page, voting has to be done for each specific office. Select "Abstain" if you do not desire to cast your vote for a specific office.
4. Once you have cast your vote, click "Submit"
5. A confirmation box will be displayed and you can choose to confirm (click "OK") or modify (click "CANCEL") your vote.
   Votes cannot be modified after confirmation.
6. E-voting opens Tue-30 Jul at 14:00 and ends Fri-02 Aug at 14:30. The e-voting module shall be disabled for voting thereafter.

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Zhejiang University

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Professor
University of Leeds

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National Central University

Yasuyuki KANO
Associate Professor
The University of Tokyo

Anawat SUPPASRI
Associate Professor
Tohoku University

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Professor
Kobe University

Tso-Ren WU
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Japan Aerospace Exploration Agency (JAXA)

Kyeong Ja KIM
Principal/Senior Researcher
Korea Institute of Geoscience and Mineral Resources

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Planetary Scientist
Jet Propulsion Laboratory, Caltech

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Space Weather Scientist
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MEETINGS & FUNCTIONS

Sun - 28 Jul

11:00 – 14:00, MR 323
Student Volunteer Training

14:00 - 15:30, MR 323
General Election Debrief

16:00 - 20:30, MR 323
Council Meeting/Get-together Dinner

Mon - 29 Jul

12:30 - 14:00, MR 320
Guidelines Committee Meeting

16:00 - 18:30, Nicoll Room
AOGS2019 Opening, Axford Lectures, General Assembly

18:30 - 20:30, Exhibition Hall
Welcome Reception/Exhibition Opens
Poster Sessions
- AS1, IG, PS
- AOGS-EOS Geoscience Challenge

Tue - 30 Jul

12:30 - 13:30
Section Meetings (Lunch Provided)

Section	Rooms
AS	309
BG	300
HS	Nicoll 3
IG	323
OS	302
PS	310
ST	Nicoll 2
SE	329

Wed - 31 Jul

12:30 - 14:00, MR 320
AOGS2020 Preparation Meeting

12:30 - 14:00, MR 323
Belmont Forum

18:00 - 20:30, Wah Lok, Carlton Hotel
Friends of AOGS Networking Social
(By Invitation Only)

Thu - 01 Aug

12:30 - 14:00, MR 320
AOGS-EGU Nat Hazards (2) Planning Meeting

18:00 - 19:30, MR 320
Publication Committee/Geoscience Letters Meeting

18:30 - 21:00, MR 323
2022 Venue Proposal Presentation – Fukuoka & Melbourne

18:30 – 21:00
Student Volunteer Night
(Requires Advance Registration)

Fri - 02 Aug

12:30 - 14:00, MR 320
Regional Advisory Committee Meeting

13:30 – 15:30, Nicoll Room
AOGS2019 Closing, Special Lecture, Awards & Recognitions, AOGS2020 Presentation
Announce General Election Results

15:30 - 16:30, Exhibition Hall
Farewell Reception

16:30 - 20:30, S.E.A Aquarium
Convener's Dinner (Ticketed Event)

Sat - 03 Aug

09:00 - 15:30, MR 323
Council Meeting, Lunch & Site Inspection

Opening/Closing Program

Mon - 29 Jul

AOGS2019 Opening: 16:00- 20:30

16:00	AOGS2019 Opening Axford Lectures
17:30	General Assembly Award Presentation: Axford Medal
18:30	Welcome Reception/Exhibition Opens Poster Sessions - AS1, IG, PS - AOGS-EOS Geoscience Challenge

Fri - 02 Aug

AOGS2019 Closing: 13:30 - 16:30

13:30	Axford Medalist Lecture
14:00	Awards & Recognition: Best Student Posters, Geoscience Challenge
14:30	Next Meeting Destination Presentation – AOGS2020 in Gangwon
15:00	Announcement of General Election Results
15:30	Farewell Reception

AXFORD LECTURES

Mon – 29 Jul, Nicoll Room, Level 3

John E. P. CONNERNEY
NASA Goddard Space Flight Center

16:15 – 16:45
"Magnetic Fields of the Gas Giants Jupiter and Saturn"

Gas giants Jupiter and Saturn have been objects of intensive study for decades, with in-situ observations first gathered by the Pioneer and Voyager flybys in the past century. From these missions we learned that the gas giants are at best fraternal twins, birthed in the solar nebula and largely of solar composition, but with dramatically different personalities. Saturn, with its uniquely axisymmetric magnetic field arising from differential rotation of its deep atmosphere, is resplendent with its brilliant ring system, enduring in its present form for tens, or perhaps hundreds, of million years. The more massive, and likely first-born twin, Jupiter, hosts a complex and non-axisymmetric magnetic field that long ago reduced his rings to the residue that remains today. Both twins, recently visited again (Cassini at Saturn; Juno at Jupiter), have already surrendered many secrets to these polar-orbiting observatories, reaching beneath the clouds with measurements of gravity and magnetic fields, and microwave emissions (Juno). The axisymmetry of Saturn's zonal harmonic magnetic field was tested anew, and found not wanting. Sliding between Saturn's rings and atmosphere, Cassini found the rings shedding mass via orbital decay and via electromagnetic erosion of the rings ("ring rain"), delivering mass along magnetic field lines to the atmosphere. Jupiter's magnetic field, still being mapped, was found to be surprisingly complex, with a non-dipolar magnetic field in its northern hemisphere, and a dipolar magnetic field south of the equator, where an enigmatic "Great Blue Spot" resides within a band of opposite polarity. Jupiter's magnetic field is likely sculpted by differential rotation of its belts and zones, extending to depths (few thousand km) where the electrical conductivity of its molecular hydrogen atmosphere grips field lines. In this lecture, I hope to grip you with some of the fascinating insights delivered by Cassini and Juno, and perhaps entertain you with historical and artistic perspective.

Philip Li-Fan LIU
National University of Singapore

16:45 – 17:15
"2018 Sulawesi Earthquake and Palu Tsunami"

On September 28, 2018 a shallow (20 km) earthquake of Mw = 7.5 struck in the neck of Minahassa Peninsula, Sulawesi. Roughly 20 to 30 min after the main shock, a tsunami hit city of Palu and many settlements along the shore of Palu Bay. The shaking of earthquake not only damaged many buildings, but also caused severe liquefaction in areas in and around Palu, which let to mudflows. The combined effects of earthquake and tsunami led to the death of at least 2,256 people.

The focal mechanism of the earthquake showed that it was caused by strike-slip faulting on the Palu-Koro fault, trending North-South. Geodetic evidence (Pixel tracking and InSAR images) clearly showed rupture (including surface rupture through the city of Palu) over a length of 150 km. It is noted that at Palu there are several parallel fault strands defining the margins of a pullapart basin.

The tide gage (an acoustic sensor), located inside the port of Pantoloan, recorded clear tsunami signals. They indicated that the leading tsunami wave arrived at Pantoloan about 6 min after the earthquake and was a depression wave. The leading wave height was about 4 m with a wave period about 4 min. Several videos showed the arrival of tsunamis at Palu city roughly 20 ~ 30 min after the earthquake. Other videos indicated that many local (smaller scale) landslides generated tsunamis inside the bay.

Several post-tsunami field surveys were conducted. Runup heights and inundation depths along the coast of Palu bay as well as along the northern coast outside the bay were reported. It was evident that there was very little evidence of the tsunami damage along the coast outside of the Palu bay. This suggests that the sources for tsunami generation must be within the bay. Tsunami simulations were performed using the geodetic constrained slip models. Simulated tsunami waves significantly under-estimated the measured wave heights at Pantoloan as well as those reported in Palu city area. This further suggests possible mechanisms such as

submarine landslides or a pull-apart occurred in the bay area that had triggered the localized tsunami waves inside the bay.

To confirm or refute the hypotheses, two submarine bathymetry surveys were conducted. Multi- Beam and Single-Beam echo sounders were used. The horizontal resolution in the deeper water (> 300 m) is about 10 m, while in the shallower water the resolution is about 80 cm. The new survey data are compared with the pre-earthquake bathymetry data (2014). The results strongly indicate the occurrence of several local landslides and a large area of subsidence in the deepwater region north of Pantoloan port. Further analysis is being carried out and results will be reported in the lecture.

SECTION LECTURES

Atmospheric Sciences
Wed – 31 Jul, Nicoll 2, Level 3

Distinguished Lecture

Zhe-Min TAN, *Nanjing University*

12:00 - 12:30

"Dynamics of Tropical Cyclone Intensity Change: External and Internal Influences"

Tropical cyclones (TCs) are among the deadliest and costliest of disasters, causing destructions due to the strong winds, the flooding and mudslides associated with storm surges and heavy rainfall. Despite the continuing improved forecast of TC's track, the prediction of TC intensity and structure still faces the great challenges in atmospheric sciences today, and progresses marginally due to the large uncertainties of our understanding on the dynamics and physics that govern the changes of TC's structure and intensity, both internally and externally.

Large-scale environmental vertical wind shear is one of the most important external factors that regulate TC intensity and structure. Our recent study suggests a new thermodynamic pathway that explains the detrimental role of deep-layer shear on TC intensity. The persistent patterns of shear-organized convection outside the eyewall transport the moist entropy upward effectively. This pathway works collectively with the classic mid-level and low-level ventilation to reduce the radial gradient of moist entropy across the eyewall. As a result, the heat engine efficiency is reduced so as to weaken TC intensity. In addition to the axisymmetric point of view, the weakening of TC intensity begins with a quadrant-dependent evolution in terms of low-level tangential wind through the multi-scale processes (vortex scale and convective scale). Given that tropical cyclones could still intensify under strong vertical wind shear, it is not only the deep-layer shear, but also the vertical profile of environmental flows, need to be considered to explain the large variability of TC intensity change. In the presence of complicated environmental flows, it is the relative configuration of low-level vortex tilt and the overall vortex tilt that determines the regions where upward motions dominant with respect to the deep-layer shear. This configuration, together with TC movement, primarily controls the convection organization in the azimuthal direction. This further determines whether a positive or a negative feedback would be established through the coupling between vortex tilt and convection to affect the precession of overall vortex tilt that is important for TC's intensification variability.

The concentric eyewall structures are common in the intense TCs, which are related to the pronounced changes of TC intensity and structure. Thus, the second eyewall formation (SEF) and subsequent eyewall replacement cycle (ERC) are the one of important internal process influenced TC intensity and structure change. Although substantial advances have been made in understanding SEF and ERC, some key disagreements remain, and there no consensus on any single theory of SEF. Our recent study suggests that in the intense TCs, the SEF generally occurs in association with the asymmetric outer rainbands. The enhancement of convection in the SEF region follows the formation and inward contraction of an outer rainband. The descending radial inflow in the middle and downwind portions of the outer rainband initiates/maintains a strong inflow in the boundary layer. The latter is able to penetrate into the inner-core region, sharpens the gradient of radial velocity, and reinforces convergence. Consequently, warm and moist air is continuously lifted up at the leading edge of the strong inflow to support deep convection. Moreover, the inflow from the outer rainband creates strong supergradient winds that are ejected outward downwind, thereby enhancing convergence and convection on the other side of the storm. The interaction between outer rainband forcing and boundary layer dynamics is the key factor for the SEF. These also imply that the favorable environment for outer rainband formation is necessary condition for the SEF. A relatively large size for TC wind structure is conducive to the SEF.

In this talk I will discuss the dynamical process related to both internal and external influence on the tropical cyclone intensity and structure change and their implications for the improvement of tropical cyclone intensity prediction.

Section Lectures Atmospheric Sciences Cont'd...

Kamide Lecture

Yen-Ting HWANG, *National Taiwan University*

11:30 – 12:00

"Local and Remote Control on Tropical Circulation and Precipitation under Anthropogenic Climate Change"

The local control of sea surface temperature on tropospheric stability and convection in the tropics has long been recognized to play a critical role in determining the position of the tropical rain belt. The newly developed global energetic constraint, on the other hand, has emphasized extratropical influence on tropical precipitation. Confusion arises when constructing a predictive framework for tropical precipitation in global warming scenarios: The local perspective predicts a southward shift of the tropical rain belt toward the equator, caused by an El Niño-like warming pattern in most global climate models; whereas the energetic perspective points to a northward shift of the tropical precipitation due to positive feedbacks over Northern Hemisphere high latitudes and enhanced heat uptake over the Southern Ocean.

Here we point to a structural change in Hadley Circulation when reconciling the two perspectives. Take the Community Earth System Model (CESM) Large Ensemble Project's historical and RCP8.5 simulations as an example. An intertropical convergence zone (ITCZ) index and a precipitation centroid (PC) index are defined to quantify the meridional displacement of the zonal-mean rainfall peak and the overall tropical precipitation pattern, respectively. Throughout the simulations, both indices show complex transient responses but different turning points in their time series. The ITCZ is initially stationary but begins to shift southward toward an enhanced equatorial warming pattern that appears after the 1990s. On the other hand, the PC first shifts southward when aerosols cool the Northern Hemisphere during the 20th century, and then shifts northward after year 2000 when greenhouse gas warming is larger in the Northern than Southern Hemisphere. The structural changes in Hadley Circulation can also be seen in other global climate models participated in CMIP (the Coupled Model Intercomparison Project of the World Climate Research Program). The ITCZ and the PC shift toward the opposite directions as the climate warms. The global energetic framework has a stronger constraint on the subtropical precipitation changes, as the stability changes less in the subtropics comparing with the deep tropics in climate change scenarios.

Biogeosciences
Wed – 31 Jul, MR 300, Level 3

Distinguished Lecture

Minhan DAI, *Xiamen University*

12:00 – 12:30

"On the Interactive Eutrophication, Hypoxia and Ocean Acidification in the Coastal Ocean"

Many studies have shown that coastal hypoxia is primarily associated with autochthonous organic carbon (Auto-OC) production, stimulated by coastal eutrophication resulting from excessive terrestrial nutrient runoff. Nutrients stimulate algal blooms in coastal surface waters. Sinking and remineralization of algal biomass drive dissolved oxygen (DO) consumption below the pycnocline. Therefore, Auto-OC is believed to be the predominant oxygen sink. Other studies, however, have suggested that Auto-OC may support only a fraction of DO consumption in the hypoxic zone. The relative contributions from eutrophication-induced autochthonous and terrestrially sourced allochthonous organic matter in causing coastal hypoxia are, however, still the subject of considerable debate despite decades of research. Another emerging but less studied environmental problem associated with entrophication is the enhanced ocean acidification (OA) in the coastal ocean, which often occurs accompanied by hypoxia. This enhanced acidification is typically induced by two processes. One is the in situ decomposition of the settled organic matter, which produces CO_2 and decreases pH. The other is the decrease of the buffering capacity of the water, which further decrease pH.

This study examines major drivers of hypoxia and OA in both the East China Sea off the Changjiang estuary and in South China Sea off the Pearl River estuary. Also examined is the interplays between eutrophication, hypoxia, and ocean acidification in these two highly impacted systems. My presentation will then examine the global scale environmental issues related to eutrophication and its interactive biogeochemistry with hypoxia and ocean acidification in the coastal system. My research also highlights that both the hydrodynamic and biogeochemistry should be taken into consideration and multidisciplinary research approach is essential in order to diagnose individual processes in complex coastal environment.

Kamide Lecture

Masayuki KONDO, *Center for Environmental Remote Sensing (CEReS), Chiba University*

11:30 – 12:00

"The Role of CO2 Fluxes by Land Use Changes in Recent Terrestrial Carbon Balance"

CO_2 flux by human-induced land use changes (LUC) is the integral component of current terrestrial carbon balance. With the magnitude accounting for approximately 20% of anthropogenic CO_2 emissions, variability in LUC activities can shift the direction of the net CO_2 flux either to the land or to the atmosphere. Common LUC practices such wood harvesting, deforestation, shifting cultivation, and grazing and crop harvesting induce CO_2 emissions via decomposition of litter residues and consumption of cultivated products. While plants that were left or managed to re-grow after large scale LUC activates can contribute to CO_2 uptake from the atmosphere. Until today, our understanding about the net LUC flux (an exchange of CO_2 between the atmosphere and land resulted from LUC activities) has progressed owning to the development of several independent estimation techniques such an aggregation of national statistics of ecosystem inventory measurements (statistical approach), carbon stock and land cover monitoring based on satellite observations (remote-sensing approach), and estimation of individual components of the net LUC flux based on theoretical and empirical relations (modelling approach). Using these approaches, this lecture presents the two case studies demonstrating the impact of (1) LUC emissions and (2) CO_2 uptake by plant regrowth in recent terrestrial carbon balance.

(1) Recent pattern of LUC emissions and its role in variability of the net CO_2 flux in Southeast Asia. LUC activity and climate variability induce large variations in the net CO_2 flux in the pantropics, shifting the direction of flux either to the land or to the atmosphere. In Southeast Asia, LUC emissions account for a major fraction globally and climatic conditions are directly influenced by El Niño Southern Oscillation (ENSO). However, the variability of the net CO_2 flux in Southeast Asia is not fully understood, and there has been no detailed studies addressing effects of the LUC and climate on flux variability. Using modeling and remote-sensing approaches, this study illustrates the decadal variability of the net CO_2 flux in Southeast Asia over the past 30 years, with an aim to identify underlying factors controlling the decadal variability of the net CO_2 flux.

(2) Plant regrowth as a driver of recent enhancement of terrestrial CO_2 uptake. Attributing drivers of net CO_2 uptake in detail leads to clarification of causes for the recent enhancement of CO_2 uptake by the terrestrial biosphere. The increasing strength of the land uptake in the 2000s has been attributed so far to a stimulating effect of rising atmospheric CO_2 on photosynthesis (CO_2 fertilization). However, it is still arguable whether the CO_2 fertilization is a dominant cause for the recent enhancement of CO_2 uptake because, in addition to the level of atmospheric CO_2, the terrestrial biosphere has undergone historical changes through land use and management. Here using multiple approaches for CO_2 flux estimation, this study shows a decadal-scale CO_2 uptake enhancement is induced not only by CO_2 fertilization, but also an increasing uptake by plant regrowth from past land use changes (LUC), with its effect most pronounced in eastern North America, southern and eastern Europe, and southeastern temperate Eurasia.

Hydrological Sciences
Tue – 30 Jul, Nicoll 3, Level 3

Distinguished Lecture

Venkataraman LAKSHMI, *University of Virginia*

12:00 - 12:30

"Observing the Terrestrial Water Cycle from Space"

Land surface hydrology is a collection of complex processes. Precipitation is partitioned into infiltration and runoff depending on antecedent soil moisture conditions, the properties of the soil, the slope of the land surface and the atmospheric demand for evapotranspiration. The spatial variability both the land surface properties (soil and vegetation) as well as the meteorological inputs (precipitation and radiation) play an important role in hydrology. Land surface hydrology is heterogeneous in space and time - making observation and modeling activities very difficult. Satellite remote sensing has a broad spatial view of the land surface and is able to provide data for use in hydrology such as soil moisture, surface temperature and vegetation density. Satellite sensors include - microwave observations for soil moisture and precipitation; visible/near infrared for vegetation and evapotranspiration, gravity for groundwater/total water and thermal observations for surface temperature. Soil moisture is a key variable in hydrology.

However, the spatial resolution of soil moisture observations is on the order of 10km and this is very coarse for catchment hydrological applications. In this talk I will discuss an innovative method for downscaling soil moisture to 1km and its validation with ground and aircraft observations at a regional scale and high spatial resolution soil moisture for the continental United States. I will show how the satellite observations and model outputs can be used to close the water budget for continental river basins. From a societal context, satellite observations are instrumental in determining the available water resources in regions of the world where observations are lacking and local economy is tied closely to water.

Kamide Lecture

Wei GONG, *Beijing Normal University*

11:30 – 12:00

"Surrogate Modeling-based Optimization Methods for Large Complex Dynamical Geoscience Models"

Dynamical geoscience models, including but not limited to hydrology and land surface models, atmospheric models, ocean models and Earth system models, are plagued by various uncertainties arising from the chaotic nature of the underlying dynamic system, the observational error, and a lack of knowledge about the physical/chemical/biological processes and their complex interactions. One key source of uncertainties comes from the empirical parameterization schemes used to describe the processes occurring at sub-grid scale, such as surface and subsurface hydrological processes, and the physical processes related to turbulent exchange between land surface and atmosphere, clouds and convection. Those parameterization schemes contain a large number of empirical parameters (i.e., constants and exponents in model equations) that must be tuned to make sure that model simulations are consistent with the corresponding observational data. This tuning process can be a time-consuming process and an extremely difficult challenge to model users.

Here we present a framework specifically designed to automatically optimize the parameters and to quantify the associated parametric uncertainty of large complex geoscience models. Our framework consists of three major steps: (1) uniform sampling of parameter space, (2) parameter screening based on global sensitivity analysis, and (3) surrogate modeling-based optimization and uncertainty quantification of model parameters. We have integrated within our framework many widely used methods to perform parameter sampling and to conduct sensitivity analysis. We have also implemented numerous machine learning methods to build a series of surrogate model-based optimization methods, including: (1) the single objective optimization method ASMO (Adaptive Surrogate Modeling-based Optimization); (2) the multi-objective optimization method MO-ASMO (Multi-Objective Adaptive Surrogate Modeling-based Optimization); and (3) the parameter optimization and probability distribution estimation method ASMO-PODE (Adaptive Surrogate Modeling-based Optimization - Parameter Optimization and Distribution Estimation). In this talk, we briefly introduce the framework first. We then present several examples to demonstrate the advantages of our methods as compared to currently used popular optimization methods such as SCE-UA, NSGA-II and MCMC-Metropolis methods. A variety of geoscience models, from a simple hydrological model (e.g., SAC-SMA), to more complex land surface models (e.g., CoLM, CLM and Noah-MP), and finally to a computationally demanding numerical weather prediction model (e.g., WRF) and an Earth system model of intermediate complexity (e.g., LOVECLIM), were used to illustrate the effectiveness and efficiency of our framework.

Interdisciplinary Geosciences
Mon – 29 Jul, MR 323, Level 3

Distinguished Lecture

Nerilie ABRAM, *Australian National University*

12:00 – 12:30

"Tight Coupling of Tropical Indian and Pacific Climate Variability Through the Last Millennium"

The Indian Ocean Dipole (IOD) impacts climate and rainfall across the world, and most severely in nations surrounding the Indian Ocean. The frequency and intensity of positive IOD events increased during the 20th Century, and may continue to intensify in a warming world; however, confidence in future IOD changes is limited by known biases in model representations of the IOD and the limited information on natural IOD variability prior to anthropogenic climate change. Here we use precisely dated and highly resolved spliced fossil coral records from

the eastern equatorial Indian Ocean, where the signature of IOD variability is optimised, to produce a semi-continuous reconstruction of IOD variability that covers five centuries of the last millennium. Our reconstruction demonstrates that extreme positive IOD events such as the 1997 strongest-on-record event are rare, but this event was not unprecedented with at least one event that was 20% larger occurring naturally during the 17th Century. High variability of the IOD during the 17th Century coincided with an anomalous interval where El Niño Southern Oscillation (ENSO) variability also exceeded the high variability observed in recent decades, and our reconstruction demonstrates for the first time that a persistent, tight coupling existed between variability of the IOD and ENSO during the last millennium including times prior to anthropogenic climate forcing. This tight coupling of tropical Indo-Pacific climate variability and a multi-decadal clustering of positive IOD events evident in our reconstruction have important implications for improving seasonal and decadal prediction schemes, with the potential to enable societal adaptation to the impacts of IOD variability.

Kamide Lecture

Anh Kim NGUYEN, *National Central University*

11:30 – 12:00

"Remote Sensing and GIS for Quantifying Eco-environmental and Social Vulnerability to Natural Hazards and Manmade Disturbances for Improved Adaptive Capacity"

Natural variation and its complex interaction with anthropogenic processes significantly alter the eco-environment and regional climate patterns. In the context of climate change, Asian countries particularly in tropical climate zone with high humidity and unevenly distributed abundant precipitation tend to have frequent occurrence of drought and flooding. The increase in frequency and magnitude of severe weather extremes (torrential rain, summer heat waves, winter unusual snowfall, and urban heat island) likely linked to anthropogenic processes highlights the demands of quantifying eco-environmental and social vulnerability to enhance adaptive capacity.

Remote sensing data and Geographical Information System (GIS) have been instrumental in mapping the features of the earth's surface for decades. Recently, there has been an increasing trend on environmental and social studies by use of remotely sensed data and GIS for mapping eco-environmental and social vulnerability, monitoring vector-borne diseases, and evaluating adaptive capacity. This lecture will provide further applications on how remotely sensed data and GIS can be used in vulnerability and adaptive capacity assessment corresponding to natural hazards, manmade disturbances, and health applications. We take advantages of remote sensing products and freely accessible datasets to create vulnerability and adaptive capacity maps of Vietnam in response to tropical storms and generate eco-environmental vulnerability map at multi-scale. This aims are to minimize the negative impacts of climate change and environmental management, promise the possibility of establishing open GIS database with highlighted regions for citizen participation, and provide deeper knowledge to support environmental and social and public health research.

In addition, this lecture will present the first quantitative map of eco-environmental vulnerability at a global scale using multi-indicators. Results suggest that: (i) at continental scale, human and nature play a dominant role in making disturbances in Asia and Africa more than the other continents. A possible reason behind may be due to the fact that in these regions human beings significantly depend on goods and services from eco-system and natural resources. The resulting pressure will continue to increase with a high rate of growing population and intensive infrastructure development. (ii) At national scale, China and India are the most vulnerable in Asia and in the world.

Finally, we will present a conceptual framework that incorporates 21 indicators to identify vulnerability and adaptive capacity (VAC) using geospatial techniques at regional scales over Vietnam. Results indicate large spatial differences in VAC and identify top-priority regions that need to enhance their adaptation to typhoons. The Southern Coastal area, South East and Red River Delta demonstrate high and very high vulnerability because of their physical features and the intensity of typhoons that frequently cross these parts of Vietnam. The lower Mekong Delta and Northern Coastal areas are vulnerable to typhoon-driven flood threats, and in particular compounded by sea-level rise.

Ocean Sciences
Thu – 01 Aug, Nicoll 1, Level 3

Distinguished Lecture

Wenju CAI, *Commonwealth Scientific and Industrial Research Organisation*

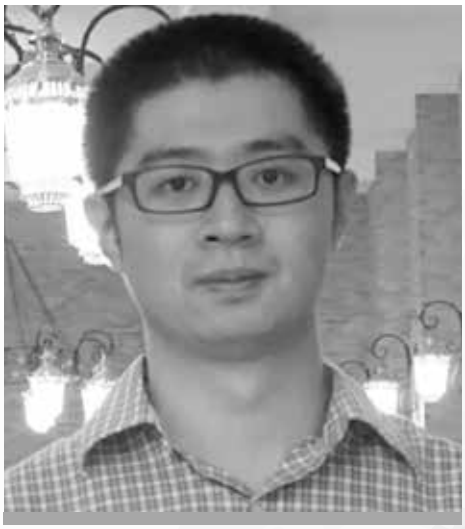
12:00 – 12:30

"Response of El Niño/La Niña to Greenhouse Warming"

The El Niño-Southern Oscillation (ENSO) is the dominant and most consequential climate phenomenon with global impacts. The response of ENSO sea surface temperature (SST) variability to greenhouse warming is one of the most important issues in climate change science, and has challenged scientists for decades. I will present recent findings showing that the frequency of extreme La Niña, and variability of eastern Pacific El Niño SST are expected to increase in response to unabated greenhouse gas emissions. With this projected increase, we should expect more occurrences of extreme weathers associated with ENSO events, with pronounced implications for the twenty-first century climate, extreme weather, and ecosystems.

Kamide Lecture

Zhao JING, *Ocean University of China*



11:30 -12:00

"Ocean Mesoscale Eddy-Atmosphere Interaction and Its Impact on Eddy Energetics and Transport"

Mesoscale eddies are ubiquitous in the upper ocean, containing 70% of oceanic kinetic energy. They are a key component in the ocean energetics and contribute significantly to the transport of heat, carbon dioxide and nutrients. Characteristics and variabilities of mesoscale eddies used to be understood from a pure ocean dynamics viewpoint. However, observational and modeling studies in the past two decades indicate that they are strongly coupled to the atmosphere. On one hand, mesoscale eddies have a profound influence on the atmospheric boundary layer, exerting a significant imprint on the turbulent heat flux, winds/ wind stress and rainfall and further providing a source of influence on midlatitude weather pattern changes. One the other hand, the atmospheric response can in turn affect mesoscale eddies and large-scale circulations in several ways. This talk provides a brief review on this feedback and introduces some new findings from our research group. Topics include (1) how the air-sea interaction affects the eddy energetics, (2) how this effect changes the eddy transport in the ocean, and (3) what its impact is on the large-scale ocean circulation and stratification.

Planetary Sciences
Mon - 29 Jul, Nicoll 3, Level 3

Distinguished Lecture

Peter READ, *University of Oxford*

12:00 – 12:30

"The Turbulent Dynamics of Jupiter's and Saturn's Weather Layers: Order Out of Chaos?"

The cloudy atmospheres of Jupiter and Saturn have long fascinated observers and theoreticians because they exhibit a wealth of phenomena where long-lived, coherent features, such as large-scale vortices and zonally banded jets, coexist with intense chaotic motion on smaller scales. The persistent pattern of zonal jets accounts for around 90% of the kinetic energy of the circulation near Jupiter's cloud tops and forms a nearly unchanging flow structure on timescales ≤ 100 yrs, yet seems to be maintained by the action of a turbulent

spectrum of waves and eddies. Since the early work of Gareth Williams in the 1970s, theoretical and numerical models have suggested the importance of rapid rotation, spheroidal planetary curvature and vertical stratification in directing the transfer of kinetic energy into zonal jets. But the origins of the energetic eddies and their vertical structure and depth of penetration have remained poorly constrained and understood, despite a wealth of observations from missions such as Voyager, Galileo, Cassini and Juno.

In recent work, we have re-examined the observed interactions between eddies and zonal flows on Jupiter, using for the first time a full spectral decomposition of cloud-tracked winds from Cassini's closest approach in 2000. These clearly demonstrate the anisotropic nature of the inverse cascade of kinetic energy from fairly small-scale eddies towards larger scales and, in particular, into zonal flows. At the smallest resolved scales, however, with horizontal wavelengths ≤ 3000 km, the sense of kinetic energy transfer is evidently direct, i.e. towards even smaller scales. This kind of bi-directional "dual cascade" has only recently been identified as a fundamental paradigm for rotating, stratified flows, and further suggests a kinetic energy source for eddies on Jupiter at scales around 3000 km. Given this is close to estimates of the Rossby radius of deformation on Jupiter, such an energy source is most likely to be from the potential energy of the stably-stratified background thermal field of the weather layer itself, released through a form of baroclinic instability. Such a process, however, is likely to differ significantly in form from baroclinic cyclones found on Earth and other terrestrial planets, for which interactions with the underlying surface play an important role.

This interpretation has also received support from other recent work in our group using a numerical general circulation model (GCM) of Jupiter's weather layer (spanning pressures from 20 bars to 10 mb). This model is able to reproduce many qualitative features of the observed cloud-level circulation on Jupiter and Saturn, including their extra-tropical zonal jets and prograde equatorial jet, without invoking a deep convective circulation. A spectral analysis of energy transfers within these model simulations demonstrates a similar pattern of kinetic energy cascades to those observed, including a dual cascade with an energy source at scales around 3000 km and eddy-zonal flow interactions that peak close to the tropopause. The energy source in our model is due to conversion from available potential energy by baroclinic instabilities at zonal wavelengths around 2000-5000 km, centred around the tropopause.

In this talk I will discuss both observations and models of turbulent cascades in the weather layers of Jupiter and Saturn and their implications for our understanding of the atmospheric circulations of these planets and the associated transport of momentum and constituents. One feature of the observed cloud level circulation that is not well represented in most gas giant GCMs is the spontaneous development of large-scale, long-lived oval vortices such as the Great Red Spot, Oval BA or the recently discovered polar vortices. The reasons for this are not well understood, but possible implications will be discussed, together with desirable directions for future research.

Kamide Lecture

Jiwei XIE, *Nanjing University*

11:30 – 12:00

"Exoplanets: From Individual Discoveries to Population Census"

Since the first exoplanet discovered in 1990s, over 3900 exoplanets have been found so far. People are not satisfied with simply increasing this discovery number by finding more exoplanets, but have become more interested in the statistical characteristics of exoplanets. How are they classified? What are the properties of different planet populations? What if they are compared to our solar system? What can we learn about the formation history from the discovered exoplanets? Exoplanet population census is a key towards the answers of these questions.

Solar & Terrestrial Sciences
Tue – 30 Jul, Nicoll 2, Level 3

Distinguished Lecture

Hanli LIU, *National Center for Atmospheric Research*

12:00 – 12:30

"The Power of the Powerless--The Significant Role of Mesoscale Processes in the Atmosphere"

It is well established that the atmospheric kinetic energy spectrum follows a power law in the mesoscale range with a slope of ~ -5/3. This makes the mesoscale processes, likely gravity waves, appear quite powerless in the overall energy budget. On the other hand, gravity waves are thought to strongly affect the circulation pattern in the middle and upper atmosphere, though there are large uncertainties in quantifying such effects in global models because mesoscale waves are not well resolved. Even with increasing spatial resolutions and more realistic and detailed representation of the atmosphere, the forcing on the mean circulation by resolved waves in general circulation models (GCMs) is still not converging. This suggests the importance of unresolved, smaller-scale waves in the global momentum budget, which still defies physically consistent quantification. In this talk, I will present a recent study of the zonal spectra of momentum flux and wave forcing over the resolved mesoscale range, which shows that they display scale invariance and have shallow slopes. By assuming the same statistical distribution throughout mesoscale range and with the knowledge of the resolved portion, it is possible to quantify the forcing by the portion that is unresolved in global models. The result reveals the leading order importance of this forcing in comparison to that by the resolved waves--thus the power of these small-scale waves--and it is in general agreement with that required for obtaining the zonal mean wind climatology. It is also found that wave and mean flow interaction is important in maintaining the rather robust spectral structure. This method may provide a strategy to design physically consistent and scale-aware parameterization schemes for scale invariant quantities, when a model has sufficient resolution to partially resolve their power-law spectra.

Kamide Lecture

Yang-Yi SUN, *China University of Geosciences*

11:30 – 12:00

"GNSS Helps Us Get Our Feet Back on the Ground from Ionosphere"

The Earth's ionosphere (from ~70 to thousands km above the Earth) is central to our solar-terrestrial environment. Both solar activity (e.g. solar flare, solar wind, coronal mass ejection, and moon shadow of eclipse) and perturbations from lower atmosphere (e.g. cyclone, convection, and El Niño - Southern Oscillation) and ground motion (e.g. earthquake, tsunami, and volcanic eruption) leave many of shape footprints messy on the ionosphere. We do appreciate any novel technique being around to help us to investigate unexplained phenomena.

Dense Global Navigation Satellite System (GNSS) networks can globally scan ionospheric electron density structures in both horizontal and vertical directions with high temporal and spatial resolutions. Scientists have benefits from the ground- and space-based GNSS observations to comprehensively study ionospheric morphology response to solar activities in the recent two decades. This talk first briefly introduces the effect of the solar activities, such as geomagnetic storm and solar eclipse, on the change of ionospheric structures that critically impacts radio wave communication and navigation systems.

Other than the impact of solar activities, numerous ionospheric phenomena that may result from perturbations from lower atmosphere and ground remain unexplained. This talk pays attention to the influence of El Niño - Southern Oscillation (ENSO), which is considered to be the primary dynamical driver of the interannual variations in troposphere, on the quasi-biennial oscillation (QBO) in stratosphere (U30 index, the monthly mean of zonal wind at 30mb pressure level over Singapore), mesosphere, lower thermosphere, and even ionosphere. The ENSO signatures in the QBOs at various altitudes are observed by the FORMOSAT-3/COSMIC radio occultation (RO) sounding profiles of temperature and electron density. The RO technique records ENSO signals which are pertinent to the ongoing study attempting to establish the long-term change in the troposphere connection to the upper atmosphere.

Moreover, ground motions due to a large earthquake or tsunami can significantly perturb the ionosphere. The horizontal movement of seismo-traveling atmospheric disturbance (STAD) in the ionosphere have been comprehensively observed by dense ground-based GNSS networks. However, study for its vertical component is rare. This talk shows that the 2011 Mw9.0 Tohoku earthquake/tsunami can perturb the vertical structures of not only the ionosphere, but also the stratosphere. The RO-recorded vertical component of STADs allows a more comprehensive understanding of excitation, propagation, and dissipation of earthquake/tsunami-induced waves in the whole atmosphere. The waves detection in the lower atmosphere is benefit to earthquake/tsunami warning system.

The ground- and space-based GNSS is a powerful technique to capture atmospheric variabilities in both horizontal and vertical directions at various altitudes, that bring us a holistic view of dynamic interaction between the Earth's spheres and help us to seek a deeper understanding of our solar-terrestrial environment.

Solid Earth Sciences
Thu – 01 Aug, Nicoll 2, Level 3

Distinguished Lecture

Wenjiao XIAO, *Chinese Academy of Sciences*

12:00 – 12:30

"Late Paleozoic Multiple Accretionary and Collisional Processes in Southern Altaids and their Implications for Metallogeny"

The formation and development of the southern Altaids is controversial with regard to its accretionary orogenesis and mineral deposits. The Altay-East Junggar-Tianshan collages of North Xinjiang, China, offer a special natural laboratory to resolve this puzzle. Several NWW-SEE-trending linear tectonic units were juxtaposed, roughly from North to South, in the study area.

The Chinese Altai and East Junggar collages occupy the northern part. The Chinese Altay collage, composed of variably deformed and metamorphosed Paleozoic sedimentary, volcanic, and granitic rocks, is interpreted as a Japan-type island arc of Paleozoic to Carboniferous-Permian age. The Erqis unit, which occurs immediately south of the Chinese Altai unit and consists of ophiolitic mélanges and coherent assemblages, contains fragments of Paleozoic accretionary complexes, mostly associated with a major north-dipping subduction zone. The East Junggar collage, characterized by imbricated ophiolitic mélanges, Nb-enriched basalts, adakitic rocks and volcanic rocks, is regarded as a Devonian-Carboniferous intra-oceanic island arc with some Paleozoic ophiolites, superimposed by Permian arc volcanism. A southerly-distributed forearc accretionary complex of the East Junggar collage suggests a general north-ward subduction polarity for the East Junggar collage. The southern part of the study area is the Chinese Eastern Tianshan collage that was characterized by (a) the Harlik-Dananhu subduction system with a S-dipping polarity in the north; (b) a southerly N-dipping subduction system beneath the Yamansu-Central Tianshan arc in the middle; and (c) the north subduction of the South Tianshan ocean against Tarim in the south.

During the Early Paleozoic several intra-oceanic arcs and Japan-type arcs were formed. In the Devonian to Early Carboniferous, N-dipping subductions led to the enlargement of these arcs and their accretionary complexes with general southward growth, which were attached northwards to the Angaran margin, resulting in lateral enlargement of the Angaran continent in the latest Carboniferous to Permian. Final amalgamation of all these collages may have occurred in the Permian to mid-Triassic. During these long-lived, complicated geodynamic processes with multiple subduction systems in this part of the Paloasian Ocean in the Paleozoic, several metallogenic belts were formed.

The Chinese Altai–East Junggar collages are composed of five major types of Middle to Late Paleozoic metal deposits: (1) VMS Cu–Pb–Zn, (2) porphyry Cu–Au, (3) magmatic Cu–Ni-sulfide, (4) skarn Cu–Mo–Fe and (5) orogenic Au. Tectonically, the development of these metal deposits was closely associated with accretionary and convergent processes. The formation of the deposits involved three main stages, including: (i) Late Devonian to Early Carboniferous polymetallic volcanogenic massive sulfide deposits, together with some broadly contemporaneous Fe–Cu skarns, located in the accreted Qiongkuer-Talate Terrane in the western Altai, formed during back-arc extension along the the Chinese Altai–East Junggar collages. (ii) Widespread metalliferous ores of different types such as copper-bearing porphyries and Alaskan-type Cu–Ni–PGE zoned ultramafic bodies developed in arcs in the Buerjin-Ertai and Erqis terranes, and Cu–Fe skarns formed in the Erqis flysch basin, formed in the Carboniferous to Permian terrane accretion and arc magmatism. (iii) Cu–Mo skarns and orogenic-type gold vein systems formed during continuing accretion in the Permian with the development of the Dulate arc in the southern Altai. The Chinese Altai–East Junggar collage typically demonstrates the various classic metalliferous ores formed during the processes of subduction-accretion and arc generation.

The mineralization processes in the Chinese Eastern Tianshan collage were mainly related to an island arc stage (360–320 Ma) with porphyry-type and volcano-sedimentary copper deposits, an accretionary stage (300–280 Ma) with orogenic-type gold deposits, an accretionary to post-accretional stage (280–245 Ma) with mafic–ultramafic copper–nickel and epithermal gold deposits, and a post-tectonic extensional stage (240–220 Ma) that gave rise to the Jinwuozi gold deposits, Xiaobaishitou skarn W–Mo deposits, and Baishan porphyry Mo–Re deposits.

Kamide Lecture

Keisuke YOSHIDA, *Tohoku University*

11:30 – 12:00

"Heterogeneities in Stress and Strength in Tohoku and its Relationship with Earthquake Sequences Triggered by the 2011 M9 Tohoku-Oki Earthquake"

Inland Tohoku has been recognized as being under the WNW-ESE compressional stress state before the 2011 M9 Tohoku-Oki earthquake. Earthquakes that occurred there were characterized by reverse faulting with compressional axis oriented almost WNW-ESE direction. The Tohoku-Oki earthquake reduced this WNW-ESE compressional stress and, therefore, should have suppressed the earthquake occurrence. However, several intensive earthquake sequences were triggered in inland Tohoku. In this study, we investigated the triggering mechanism of these remote earthquake sequences in the stress shadow based on the detailed distribution of stress orientations newly determined from pre-mainshock focal mechanism data. The spatial distribution of stress orientations shows that there exist some regions with anomalous stress fields even before the Tohoku-Oki earthquake on the spatial scale of a few tens of kilometers. This spatial heterogeneity in stress field suggests that the differential stress magnitude in inland Tohoku is low (a few tens of MPa). Locations of the earthquake clusters tend to correspond to regions where the principal stress axis orientations of the pre-mainshock period are similar to those of the static stress change by the Tohoku-Oki earthquake. This observation suggests that these earthquake sequences were triggered by local increase in differential stress due to the static stress change. However, a few swarm sequences occurred in central Tohoku with delays ranging from a few days to few weeks after the Tohoku-Oki earthquake despite the reduction in differential stress. These sequences have notable characteristics including upward migration of hypocenters. Such features are similar to the fluid-injection induced seismicity. The source regions of these swarms are located near the ancient caldera structures and geological boundaries. The swarm activities were probably triggered by the upward fluid movement along such pre-existing structures. These observations demonstrate that information about the temporal evolutions of both stress and frictional strength is necessary to understand the triggering mechanism of earthquakes.

SPECIAL LECTURE

Fri – 02 Aug, Nicoll Room, Level 3

2019 Axford Medalist

Andrew P. ROBERTS

Professor, Australian National University

13:30 – 14:00

"Sedimentary Paleomagnetism: What is New and Exciting?"

Paleomagnetic analysis provides an understanding of Earth's magnetic field and the deep-Earth dynamo processes that generate the geomagnetic field. Paleomagnetism has made fundamental contributions to Earth science through helping to establish the global plate tectonic paradigm and by providing the geomagnetic polarity timescale for calibrating geological time. This is all possible because nanoparticulate magnetic rock-forming minerals (e.g., magnetite, hematite, maghemite, pyrrhotite, greigite, goethite) occur commonly in nature within the ideal single domain (SD) grain size range (for magnetite, the SD range is ~30 to 100 nm). The Nobel laureate, Louis Néel, demonstrated that SD materials (in which magnetic particles have homogeneous magnetization) can retain stable magnetizations for periods exceeding the age of the Earth. The long-term stability of these magnetizations provides the basis for the widespread usefulness of paleomagnetism in Earth science. Despite the fact that sedimentary paleomagnetism has a history of more than 65 years of active investigation, we have recently made significant progress in understanding the recording of paleomagnetic signals by sediments. In particular, the widespread role of so-called magnetotactic bacteria in contributing to the magnetization of sediments has come to be recognized over the last decade. These bacteria biomineralize intracellular magnetic minerals in chains with ideal SD properties that they use to orient along geomagnetic field lines to enable them to reduce the dimensions of their search for ideal habitats in highly stratified chemical environments. When they die, their mineral remains can provide ideal paleomagnetic signals if these magnetic particles are preserved over geological timescales. Recent developments enable us to identify such magnetofossils within sediments and we have shown that they dominate the paleomagnetic signature in many ancient sedimentary environments, particularly pelagic marine carbonates. Recognition of the widespread presence of magnetofossils in the geological record is providing a new understanding of the mechanisms by which sediments acquire paleomagnetic signals.

SPECIAL SESSIONS

Lead Organizer
Jack A. KAYE, *National Aeronautics and Space Administration*

Tue – 30 Jul, 13:30 – 15:30
Nicoll 3, Level 3

SS01 - Satellite Observations for Tropical Cyclone Research

Conveners
Tsengdar LEE, *National Aeronautics and Space Administration*
Yukari TAKAYABU, *University of Tokyo*

Invited Speakers

13:30 **Assimilation of TC Inner Core Surface Winds by CYGNSS into Forecast Models**
Chris RUF, *University of Michigan*

13:50 **Assimilation of Passive and Active Sensors on Satellites to Improve Tropical Cyclone Forecasts**
Kozo OKAMOTO, *Japan Meteorological Agency*

14:10 **Raindrop Size Distribution Characteristics of Typhoon and Non-typhoon Precipitations Observed over North Taiwan**
Pay-Liam LIN, *National Central University*

14:30 **Future Challenges in Tropical Cyclone Models and the Emphasis on Integrated Digital Systems**
Ben EVANS, *Australian National University*

Wed – 31 Jul, 11:00 – 12:30
Nicoll 1, Level 3

SS05 - Space Agency Remote Sensing of the Earth

Conveners
Wenjian ZHANG, *World Meteorological Association*
Richard ECKMAN, *National Aeronautics and Space Administration*

Invited Speakers

11:00 **NASA Earth Science Division Satellite Program – Status and Update**
Jack A. KAYE, *National Aeronautics and Space Administration*

11:20 **NOAA's Space-based Remote Sensing Activities**
Ivan CSISZAR, *NOAA National Environmental Satellite, Data, and Information Service*

11:40 **Current and Future Japanese EO Satellite Programs and Related Activities and Issues**
Teruyuki NAKAJIMA, *Japan Aerospace Exploration Agency*

Wed – 31 Jul, 13:30 – 15:30
Nicoll 1, Level 3

SS03 - Mineral Desert Dust

Conveners
Sang-Woo KIM, *Seoul National University*
Jack A. KAYE, *National Aeronautics and Space Administration*
Barry LEFER, *National Aeronautics and Space Administration*

Invited Speakers

13:30 **AD-Net, a Lidar Network for Observation of Three Dimensional Distribution of Asian Dust Particles**
Atsushi SHIMIZU, *National Institute for Environmental Studies*

13:50 **Following the Dust: Satellite Perspectives of Dust Sources, Transport, Deposition, and Impacts**
Hongbin YU, *NASA Goddard Space Flight Center*

14:10 **Advancing the Capabilities to Predict the Atmospheric Burdens of Dust and its Impacts on Air Quality, Weather and More**
Gregory CARMICHAEL, *The University of Iowa*

Thu – 01 Aug, 08:30 – 10:30
MR 301, Level 3

SS04 – Oceans

Conveners
Jack A. KAYE, *National Aeronautics and Space Administration*
Philip Li-Fan LIU, *National University of Singapore*

Invited Speakers

08:30 **The North Atlantic Aerosols and Marine Ecosystems Study (NAAMES)**
Michael BEHRENFELD, *Oregon State University*

08:50 **Observations and Model Assimilation Using GCOM-C/SGLI and Himawari-8/AHI in the Western Pacific Ocean**
Hiroshi MURAKAMI, *Japan Aerospace Exploration Agency*

09:10 **Korea's Geostationary Ocean Color Program - Toward Transboundary Collaboration**
Young-Je PARK, *Korea Institute of Ocean Science & Technology*

09:30 **Coral Reef Airborne Laboratory: A New Perspective on Coral Reefs**
Eric HOCHBERG, *Bermuda Institute of Ocean Sciences*

Thu – 01 Aug, 16:00 – 18:00
MR 309, Level 3

SS02 - The Brewer-Dobson and Hadley Circulations in a Changing Climate: Evolution and Impacts

Conveners
Richard ECKMAN, *National Aeronautics and Space Administration*
Shigeo YODEN, *Kyoto University*

Invited Speakers

16:00 **Widening and Weakening of the Hadley Circulation Under Global Warming**
Yongyun HU, *Peking University*

16:20 **Tightening of Tropical Ascent and the Implications for Global and Regional Hydrological Cycle**
Hui SU, *Jet Propulsion Laboratory, California Institute of Technology*

16:40 **Improved Estimates of Recent Tropical Expansion and the Role of Natural Variability Versus Forced Change**
Sean DAVIS, *NOAA Earth System Research Laboratory*

17:00 **Past and Future Brewer-Dobson Circulation Changes and the Main Drivers**
Lei WANG, *Fudan University*

17:20 **Brewer-Dobson Circulation Diagnosed From Reanalysis Datasets**
Chiaki KOBAYASHI, *Meteorological Research Institute*

GEOSCIENCE CHALLENGE

*AOGS-Earth Observatory of Singapore (EOS) International Geoscience Challenge 2019

Mon – 29 Jul, 18:30 – 21:00
Exhibition/Poster Hall

Finalists
Middle School (SEC) Category

NSS1	"Investigating the Effectiveness of Green Initiatives in Mitigating the Urban Heat Island Effect in Singapore" *Northland Secondary School*
SKSS1	"Is Flood Risk Higher in an Urban Area or a Rural Area in Singapore?" *Sengkang Secondary School*
SKSS2	"Tree Lodge @Punggol- Has It Served Its Purpose?" *Sengkang Secondary School*
SKSS3	"Turbidity of Water in Singapore's Constructed Wetlands" *Sengkang Secondary School*
SKSS4	"Are the Developing Regions of Seng Kang West Experiencing Urban Heat Island Effect?" *Sengkang Secondary School*
SST1	"Investigation of the Effects of Coastal Gradient on the Transverse and Longitudinal Waves" *Singapore School of Science & Technology*
SST2	"Investigation of the Lightning Occurrence in Singapore During the Monsoon Season" *Singapore School of Science & Technology*
SST3	"Investigation of the Solar Flares in the 20MHz Range" *Singapore School of Science & Technology*
SST4	"Investigation of the Sudden Disturbance in the Ionosphere of the Earth" *Singapore School of Science & Technology*
SST5	"Development of a Radio Telescope for VLF Observations" *Singapore School of Science & Technology*
ASS1Z	"An Investigation of the Microplastic Pollution in Singapore Waters Based on Green-lipped Mussels as Biosensors" *Anderson Secondary School*

High School (JC) Category

DHS1Z	"Investigation of How Electricity Can Be Generated in an Environmentally Sustainable Manner" *Dunman High School*
JPJC1	"Thermal Hotspots in School: Finding Areas of Discomfort" *Jurong Pioneer Junior College*
JPJC2	"Solar Power: Diversifying School's Energy Sources" *Jurong Pioneer Junior College*
RVHS1Z	"Green Technology to Produce Volatile Organic Compounds(VOC)-free Paint By Replacing the Use of Solvent With Environmentally-friendly Silica Nanoparticles" *River Valley High School*
RVHS2	"Feasibility Study of Solar Power in Singapore" *River Valley High School*
RVHS3Z	"Investigation of Soil Quality Using Plant Biosensors" *River Valley High School*
VJC2	"Climate Change and Mass Movement in Singapore" *Victoria Junior College*

Judging of Projects- Students will be required to give a short 10 min presentation, followed by Q&A on the 29 July 2019. Teams will present their projects with the aid of their display poster.

- Middle School (SEC) Category-Open to all middle schools or secondary schools (age 13-16)
- High School (JC) Category-Open to all high schools or Junior Colleges (age 17-18)

** The AOGS-EOS International Geoscience Challenge 2019 is part of the organizations' effort to inspire and create greater interest in Geophysical Sciences among middle and high school students. The aim of the Challenge is to give students the experience of conducting an investigative geoscience project and provide students with a platform to exhibit and share their findings with others.*

MEMBER EXCLUSIVES

Workshops (AOGS2019 Participants Attend Free!)

Tue – 30 Jul, 14:30 – 18:00
MR 300, Level 3

Leaders
James D. P. MOORE, *Nanyang Technological University*
Eric O. LINDSEY, *Nanyang Technological University*

WS01 Interpreting Geodetic Data with Physical Models of Lithospheric Deformation

We are entering a new era of "big data" geodesy, with a plethora of observations now available from dense GPS networks and rapid Synthetic Aperture Radar acquisitions (InSAR). Recent advances in modelling, inversion, and theory (Muto et. al. in review, Moore et. al. 2017, Barbot, Moore & Lambert 2017) allow us to exploit these spatially and temporally dense observations to explore complex physical models at greater speed and resolution than ever before.

In this hands-on workshop, we will cover how to build physical models of the lithosphere, either for forward modelling or inversions, using a set of modular libraries to make our lives easier as Earth Scientists. We can incorporate both on-fault and off-fault deformation mechanisms, consider topography, surface loading, gravitational effects, and pressure sources. We will describe from first principles how to simulate a range of real-world deformation data, in particular GPS and InSAR. We will examine several important cases including postseismic deformation, lake loading, and volcano deformation.

We start by discussing the rheological assumptions and our choice of deformation models (Elastic, Rate and State friction, Maxwell, Burgers, power law, or a combination). We will then demonstrate how to simulate geodetic time series based on the evolution of stress in the system governed by these rheological assumptions. We will also demonstrate how to create numerical simulations of earthquake cycles, allowing for off-fault ductile deformation, and spontaneous earthquake ruptures governed by rate and state friction. Finally, we will look at inversion methods for fault slip and distributed deformation.

This workshop is aimed at geologists, geodesists, and geophysicists interested in simulating lithospheric deformation and who may have limited experience with physics or programming. The simulations will be carried out using modular code libraries, and the workshop only requires a basic knowledge of computer programming.

Tue – 30 Jul, 16:00 – 18:00
Nicoll 3, Level 3

Leaders
Dave HEATHER, *ESA/ESAC*
Pierre HENRI, *LPC2E, CNRS*
Matthew TAYLOR, *ESA/ESTEC*

WS02 Rosetta Mission Data

The aim of the session is to make the attendees familiar with and as autonomous as possible with Rosetta archive data, so that they can quickly carry out their own cometary science studies. The target audience is cometary and small body scientists, as well as members of the broader space physics and planetary community to make them aware of the data products available in the Rosetta archive, to promote usage of that data. The workshop will begin with a short presentation of the ESA Planetary Science Archive as a whole and on the Rosetta archive in particular. This will be followed by presentations from different instrument teams who will give a brief overview of their archive data, to provide instrument level insights into data access, as well as indicate the possible caveats when using the data. Following this, we aim to have a more interactive section that will focus on a published event, which will allow attendees to gain some practical experience in interacting with the archive data.

Wed – 31 Jul, 13:30 – 18:00
MR 300, Level 3
*Participants will need to bring along their own laptops

Leaders
Pawan GUPTA, *Science & Technology Institute (STI), Universities Space Research Association (USRA), NASA Marshall Space Flight Center (MSFC)*
Robert LEVY, *NASA Goddard Space Flight Center (GSFC)*

WS03 Satellite Remote Sensing of Aerosols: Data, Tools and Applications

The Moderate Resolution Imaging Spectroradiometer (MODIS) sensors aboard NASA's Earth Observing Satellites (EOS) have been observing the earth-atmosphere system for nearly two decades. Atmospheric aerosols (particulate matter) play an important role in earth radiation budget and contribute to air pollution. Since its launch, the "dark-target" (DT) aerosol retrieval algorithm has been applied to MODIS to retrieve aerosol optical depth (AOD) and other aerosol properties on a global scale. The AOD data product has been extensively used for both climate and air quality applications. More recently, the DT algorithm is being applied to new generation of sensors such as Visible Infrared Imaging Radiometer Suite (VIIRS) on Suomi-NPP, and the Advanced Himawari and Baseline Imagers (AHI and ABI) on Himawari-8 and GOES-R. The application of consistent algorithm on multiple Low Earth Orbiting (LEO) and GEOstationary (GEO) sensors is key for observing aerosols with high temporal and spatial resolution.

The workshop will provide lectures and hands-on exercises. Lectures will be about fundamentals of satellite remote sensing of atmospheric aerosols, the dark target aerosol retrieval method, and best research practices. Hands-on exercises will be geared towards accessing data, reading and mapping the aerosol fields, and validating against ground measurements. All activities will use free or open-source software tools.

Field Trip to Pulau Ubin (Sold Out)

Dates: Wed – 31 Jul, 09:00 - 16:30
Fri – 02 Aug, 09:00 - 16:30

Cost: SGD 105
**Covers field trip bus costs; ferry tickets and lunch Terms & Conditions Apply*

To be led by members of the Mangroves Lab, Department of Geography, National University of Singapore
Radhika BHARGAVA, Jared MOORE, Sasha Danielle SOTO

Description & Program
Be transported back in time to 1960s Singapore as you embark on a trip to the nearby island of Pulau Ubin. The name translates to "granite island" in Malay, and was the site of a number of quarries in the early 20th century and home to thousands of people in its heyday. While the industries have stopped, Ubin is now home to one of Singapore's last villages or kampongs. This trip will visit the iconic Chek Jawa wetlands, home to granite cliffs and outcrops and a diverse set of ecosystems including mangroves, seagrasses, mudflats and coastal forests. This important ecological area was slated for reclamation in 2001, though its subsequent protection is credited with creating the modern environmental movement in Singapore.

Timetable *(Actual May Vary)*

09:00	Assemble at SUNTEC Singapore (in front of Big Screen, Level 1)
10:00	Arrive Changi Point Ferry Terminal
10:30	Arrive Pulau Ubin
11:00	Mangrove boardwalk at Chek Jawa (look at mangroves, geomorphology)
12:00	Coastal boardwalk at Chek Jawa (look at granite formations)
13:30	Return to village for lunch
14:00	Lunch and discussion about land reclamation and transboundary sand mining
15:00	Leave Pulau Ubin
15:30	Arrive Changi Point Ferry Terminal
16:30	Arrive SUNTEC Singapore (tour ends)

PROFESSIONAL & SOCIAL NETWORKING

All Happening in the Exhibition/Poster Hall
(unless otherwise stated)
This is where you can meet people, share ideas and have a little fun!

Mon-29 Jul

10:30 - 11:00	AM Coffee/Tea
15:30 - 16:00	PM Coffee/Tea
16:00 - 18:30	AOGS2019 Opening, Axford Lectures, General Assembly *(Nicoll)*
18:30 - 20:30	Stand-Up Buffet Reception

Tue-30 Jul, Wed-31 Jul, Thu-01 Aug

10:30 – 11:00	AM Coffee/Tea
15:30 – 16:00	PM Coffee/Tea
18:30 – 20:30	Beer Hour

Fri-02 Aug

10:30 – 11:00	AM Coffee/Tea
13:30 – 15:30	AOGS2019 Closing *(Nicoll)*
15:30 – 16:30	Next Destination Reception
18:30 – 20:30	S.E.A. Aquarium & Dinner *(Ticketed Event, Sentosa)* Bus Departs SUNTEC 16:30 sharp

Tue-30 Jul 12:30 – 13:30 (Lunch Provided)
AOGS Section Meetings

AS *(MR309)*	BG *(MR300)*
HS *(Nicoll 3)*	IG *(MR323)*
OS *(MR302)*	PS *(MR310)*
ST *(Nicoll 2)*	SE *(MR329)*

Wed-31 Jul 12:30 – 14:00 (Lunch Provided)
Belmont Forum *(MR323)*
Established in 2009, the Belmont Forum is a partnership of funding organizations, international science councils, and regional consortia committed to the advancement of interdisciplinary and transdisciplinary science. Attend to learn more about the projects and funding opportunities.

Mon-29 Jul to Fri-02 Aug
Visit the AOGS Infinity Booth
To learn more and to exchange information on how to strengthen the regional cooperation among different research groups and institutions. Your participation will allow AOGS to promote further the advances of geoscience and technology in our region.

PRESENTER GUIDES

Oral

1. Presentation Guide – How to Read

SE27 – D1 – AM2 – 317A - 002				
Session Code	Conference Day 1	AM Session 2	Meeting Room	Presentation No.2
SE27	D1	AM2	317A	002

2. Prepare Your Presentation
Length of presentation material should be in accordance with your time allotted. Total duration including Q&A and speaker changeover is 15 minutes for each talk. Please refer to the Final Program for actual presentation schedules. You are kindly requested to be at the presentation room at least 15 minutes before the session starts.

3. Determine Your Audio-Visual Needs
Each meeting room comes equipped with a laser pointer, computer, LCD projector and screen. The computers in the meeting rooms are being provided to Windows-based PC users. The PC will be configured with Windows Operating System. Please bring your presentation files in thumb drives. For MAC-laptop users, please bring your own VGA adapter cable.

4. Create a Backup Copy of Your Presentation
We recommend that you bring at least 2 copies of your presentation to the meeting for backup purposes. Thumb drives are acceptable.

5. Give Your Presentation
Be considerate to the other speakers and audience by staying within your allocated time. The allocated time for your presentation includes a discussion and changeover to the next speaker. Session Chairs will hold you to the allotted time. This is essential to ensure adequate time for questions and discussion as well as adherence to the schedule. Please discuss the same material as reported in your abstract submission. At the end of the meeting, all presentation files will be destroyed.

Poster

1. Locate Your Poster Board
Poster presentations will be held from Mon - 29 Jul to Thu - 01 Aug 2019 at the Exhibition/Poster Hall. Poster boards are pre-assigned and marked with your Abstract ID. Please feel free to approach the Poster Help Desk for assistance

2. Poster Set-up, Question and Answer (Q & A) Session and Tear-down

Day & Date	Sections	Poster Set-up	*Poster Q&A	Poster Tear-down
Mon 29 Jul	AS1, IG, PS Geoscience Challenge	15:00 - 18:00	18:30 - 20:30	20:30 - 21:00
Tue 30 Jul	HS and ST	10:30 - 12:30	13:30 - 15:30	15:30 - 16:00
Wed 31 Jul	AS2 and BG			
Thu 01 Aug	OS and SE			

**Poster Q&A (Presenter attendance required)*

Submitted digital poster files will be uploaded to the Landscape Touch Screen Panels (Digital Boards) placed around the Exhibition/Poster Hall for visitor viewing throughout the conference but they are **not a substitution** for the actual poster presentation.

3. **Prepare Your Poster**

Each presenter will be provided a poster space of **2.4m wide x 1m high** poster panel. Your poster should be **1 x A0 size in landscape format, measuring 1189 mm length x 841 mm height maximum**. Your presentation must cover the same material as the abstract submitted.

- Place your Abstract ID, Abstract Title and Authors' names prominently at the top of the poster to allow viewers to identify your abstract easily.
  Presenter's Name must be underlined and in Bold Letterings.
- Authors' names, e-mails and address information must be provided in case the viewer is interested in contacting you for more information.
- You have complete freedom in displaying your information in figures, tables, text, photographs, etc. in the poster.
- A successful poster presentation depends on how well you convey information to an interested (but not expert) audience. You may wish to structure your poster by including the background of your research followed by results and conclusions.

4. **Set Up Your Poster (See also 1 & 2 above)**
   - Posters should be set-up by 18:00 (Mon) and 12:30 (Tue-Thu)
   - Posters are scheduled to be on display from 18:30 to 20:30 (Mon) and 13:30 to 15:30 (Tue -Thu). Poster Q&A Session is as scheduled and presenter attendance is required during the session.
   - Adhesive tapes and scissors are available at the Poster Help Desk, nearby the poster boards. If you have special needs for your poster presentation, please bring those supplies with you to the meeting.

5. **Remove Your Poster**
   - Posters must be removed after the viewing time by 21:00 (Mon) and 16:00 (Tue -Thu)
   - After this time, posters remaining on the boards may be removed and discarded by cleaners. AOGS will not be responsible for posters and materials left on poster boards after the stated hours.

6. **Best Student Poster Competition**

Eligibility and Entry Requirements

- Only Students are welcome to compete
- All participants are required to submit a digital copy of their poster via MARS by Fri - 12 Jul 2019 in order to qualify. Failure to submit by the stipulated deadline will lead to an automatic disqualification.

Winners will be awarded with:

1. Certificate signed by AOGS President and Section President
2. Complimentary Registration for the following year of AOGS Annual Meeting

Award Criteria & Competition Rules

1. One award minimum per Section, and 1 additional award for every 20 student posters
2. Competition Rules
   - The presenting student author must be present throughout the Section's Poster Viewing/ Interactive Forum during the Poster Session. The Best Student Poster award will be awarded to the presenting author only
   - Posters should be prepared according to AOGS Presenter Guide for Posters
3. Poster Presentations will be evaluated based on:
   - Scientific quality and novelty
   - Poster design
   - Ability of student presenter to answer question
4. Results will be announced during the Closing Ceremony on Fri - 02 Aug 2019

SCIENTIFIC PROGRAM

Date, Time & Room		308	Nicoll 2	304	303	330	329	328	310	311	327	302	301	Nicoll 1	300	309	323	Nicoll 3	Exhibition Hall
Day 1: Mon, 29 July 2019	08:30 - 10:30	AS05 *p.M5*	AS22 *p.M5*	AS31 *p.M6*	AS24 *p.M6*	HS02 *p.M7*	HS03 *p.M7*	HS04 *p.M7*	ST03 *p.M8*	ST22 *p.M8*	SE07 *p.M9*	SE17 *p.M9*	OS10 *p.M10*	OS18 *p.M10*	BG09 *p.M11*	AS03 *p.M11*	IG03 *p.M12*	PS03 *p.M12*	Build Up 08:30 - 14:00
	11:00 - 12:30	AS34 *p.M13*	AS22 *p.M13*	AS31 *p.M14*	AS24 *p.M14*	HS02 *p.M14*	HS03 *p.M15*	HS20 *p.M15*	ST03 *p.M15*	ST04 *p.M16*	SE11 *p.M16*	SE02 *p.M16*	OS11 *p.M17*	OS18 *p.M17*	BG09 *p.M18*	AS03 *p.M18*	KL-IG *p.F15* DL-IG *p.F14*	KL-PS *p.P17* DL-PS *p.P16*	
	13:30 - 15:30	AS05 *p.M18*	AS22 *p.M19*	AS26 *p.M19*	AS01 *p.M20*	HS05 *p.M21*	HS03 *p.M21*	HS21 *p.M22*	ST31 *p.M22*	ST04 *p.M23*	SE05 *p.M23*	SE02 *p.M24*	OS11 *p.M24*	OS18 *p.M25*	BG01 *p.M25*	AS03 *p.M26*	IG13 *p.M26*	PS03 *p.M27*	Exhibitor Booth Dressing 15:00 - 18:00
	16:00 - 18:30	Opening, Axford Lectures & General Assembly - Venue: Nicoll *p.F9-10*																	Exhibition Opens 18:30
	18:30 - 20:30	Exhibition Opens & Welcome Reception Poster Session: AS1, IG, PS & Geoscience Challenge - Venue: Exhibition Hall *p.M28-41, F22*																	

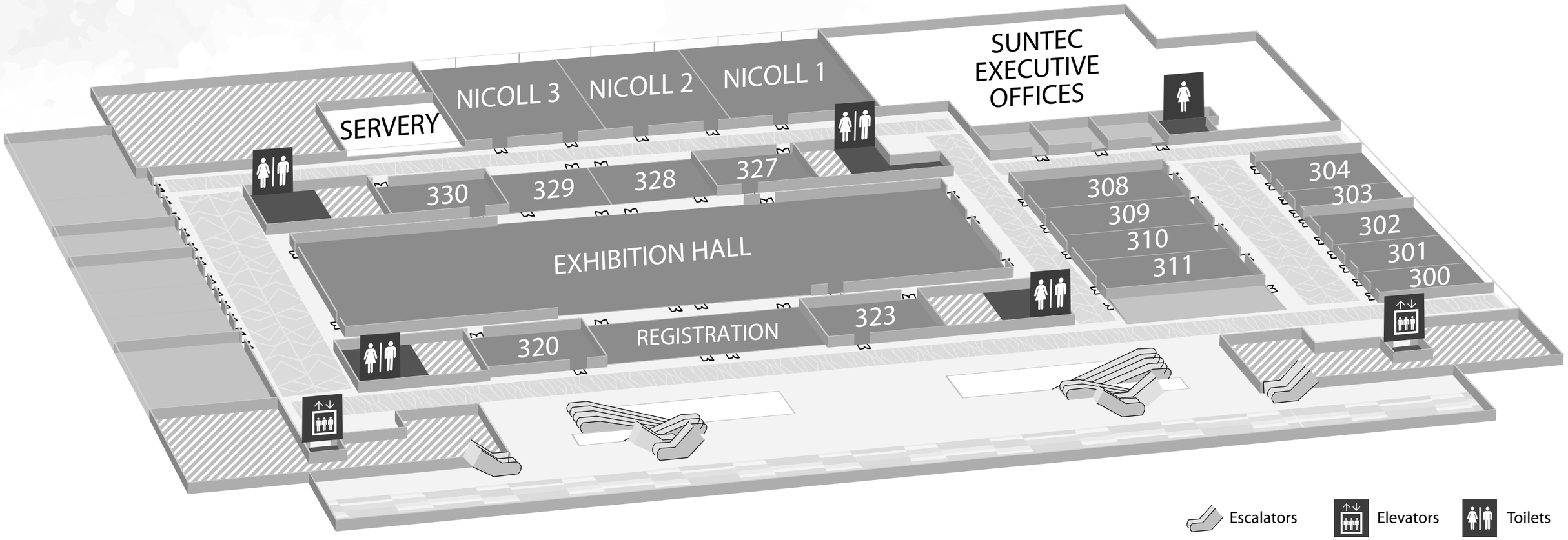
Date, Time & Room		308	327	304	303	300	330	309	310	311	329	328	302	Nicoll 1	323	Nicoll 3	Nicoll 2		Exhibition Hall
Day 2: Tue, 30 July 2019	08:30 - 10:30	AS05 *p.M47*	AS09 *p.M51*	AS26 *p.M48*	AS36 *p.M48*	BG03; BG04 *p.M53*	SE19 *p.M49*	AS46 *p.M53*	PS08; PS15 *p.M50*	PS07 *p.M51*	SE12 *p.M49*	SE10 *p.M50*	OS15 *p.M52*	OS18 *p.M52*	IG20 *p.M54*	HS01 *p.M54*	ST21 *p.M47*		Exhibition 10:00 - 18:00
	11:00 - 12:30	AS08 *p.M55*	AS12 *p.M58*	AS25 *p.M55*	AS36 *p.M55*	BG05 *p.M59*	SE19 *p.M56*	AS17 *p.M59*	PS06 *p.M57*	PS07 *p.M57*	SE12 *p.M56*	SE06 *p.M56*	OS11 *p.M58*	OS18 *p.M59*	IG04 *p.M60*	KL-HS *p.F14* DL-HS *p.F13*	KL-ST *p.F18* DL-ST *p.F17*		
	12:30 - 13:30					SM-BG		SM-AS	SM-PS		SM-SE		SM-OS		SM-IG	SM-HS	SM-ST		
	13:30 - 15:30	AS06 *p.M60*	AS12 *p.M65*	AS30 *p.M61*	AS44 *p.M61*	WS01 14:30 - 18:00 *p.F22*	SE01 *p.M62*	AS17 *p.M66*	PS18 *p.M63*	PS02 *p.M64*	SE12; SE16 *p.M62*	SE06 *p.M63*	OS15 *p.M65*	OS05 *p.M66*	IG04 *p.M66*	SS01 *p.M67*			Poster Session - HS, ST *p.M74-90*
	16:00 - 18:00	AS06 *p.M67*	AS18 *p.M71*	AS30 *p.M68*	AS44 *p.M68*		SE01 *p.M69*	AS17 *p.M72*	PS18 *p.M70*	PS11 *p.M70*	SE16 *p.M69*		OS15 *p.M71*	OS05; OS12 *p.M72*	IG04 *p.M72*	WS02			AOGS Beer Hour

Date, Time & Room		300	308	309	304	329	328	330	310	311	303	327	301	302	323	Nicoll 1	Nicoll 2	Field Trip 1	Exhibition Hall
Day 3: Wed, 31 July 2019	08:30 - 10:30	BG06; BG10 *p.M101*	ST08 *p.M95*	ST27 *p.M102*	ST06 *p.M96*	HS09 *p.M97*	HS22 *p.M97*	HS13 *p.M96*	PS12 *p.M98*	SE13 *p.M99*	SE21 *p.M96*	SE09 *p.M99*	OS08 *p.M100*	OS14; OS17 *p.M100*	IG12 *p.M102*	AS03 *p.M101*	AS19 *p.M95*	"Pulau Ubin" (09:00 - 16:30) Starts & Ends at SUNTEC. By 09:00 - Please assemble at ground floor (below big screen)	Exhibition 10:00 - 18:00
	11:00 - 12:30	KL-BG *p.F13* DL-BG *p.F12*	ST08 *p.M102*	ST16 *p.M106*	ST06 *p.M103*	HS09; HS11 *p.M104*	HS22; HS27 *p.M104*	HS08 *p.M103*	PS12 *p.M105*		SE20 *p.M103*	SE23 *p.M105*	OS08 *p.M106*	OS17 *p.M106*	IG24 *p.M107*	SS05 *p.M106*	KL-AS *p.F12* DL-AS *p.F11*		
	12:30 - 13:30														Belmont Forum (Ends 14:00)				
	13:30 - 15:30	WS03 *p.F23*	ST18 *p.M107*	ST26-PS17 *p.M112*	ST29 *p.M108*	HS11 *p.M109*	HS27 *p.M110*	HS13 *p.M109*	PS16 *p.M110*	AS07 *p.M111*	SE22 *p.M108*	SE09 *p.M111*	OS09; OS19 *p.M112*	OS02 *p.M111*		SS03 *p.M112*	Meet-the-Experts		Poster Session - AS2, BG *p.M121-131*
	16:00 - 18:00		ST18 *p.M113*	ST26-PS17 *p.M119*	ST11 *p.M114*	HS23 *p.M115*	HS24 *p.M116*	HS13 *p.M115*	PS16 *p.M116*	AS07 *p.M117*	SE22 *p.M114*	IG19 *p.M117*	OS07 *p.M118*	OS02 *p.M118*	SE24 *p.M120*	AS11 *p.M119*			AOGS Beer Hour

Date, Time & Room		302	308	309	304	329	328	330	310	311	303	327	Nicoll 3	300	323	Nicoll 1	Nicoll 2	301	Exhibition Hall
Day 4: Thu, 01 August 2019	08:30 - 10:30	AS02 *p.M142*	ST30 *p.M138*	ST02 *p.M144*	ST14 *p.M139*	HS07 *p.M140*	HS06 *p.M140*	HS19 *p.M140*	PS09 *p.M141*	AS43 *p.M141*	AS35 *p.M139*	AS27 *p.M142*	AS14 *p.M145*	BG07; BG08 *p.M144*	IG17 *p.M145*	OS13 *p.M143*	SE30 *p.M138*	SS04 *p.M143*	Exhibition 10:00 - 18:00
	11:00 - 12:30	AS08 *p.M148*	ST05 *p.M146*	ST02 *p.M150*	ST14 *p.M146*	HS07 *p.M147*	HS28 *p.M147*		PS01 *p.M147*	AS29 *p.M148*		AS27 *p.M148*	AS14 *p.M150*	BG08 *p.M149*	IG18 *p.M150*	KL-OS *p.F16* DL-OS *p.F16*	KL-SE *p.F20* DL-SE *p.F19*	PS20 *p.M149*	
	13:30 - 15:30	AS08 *p.M156*	ST24; ST17 *p.M151*	ST09 *p.M158*	ST28 *p.M151*	HS18 *p.M153*	HS14 *p.M154*	HS26 *p.M153*	PS14 *p.M154*	AS28 *p.M155*	AS21 *p.M152*	AS15 *p.M155*	AS14 *p.M159*	IG07 *p.M157*	IG18; IG17 *p.M158*	OS04 *p.M157*		ST07; ST01 *p.M156*	Poster Session - OS, SE *p.M168-180*
	16:00 - 18:00	AS47 *p.M164*	ST19; ST20 *p.M159*	SS02 *p.M166*	ST15; ST10 *p.M160*	HS18 *p.M162*	HS17 *p.M162*	HS12 *p.M161*	PS14 *p.M163*	AS28 *p.M163*	AS21 *p.M161*	AS45 *p.M164*	AS14 *p.M166*	IG07 *p.M166*	Reserved	OS04; OS03 *p.M165*	SE03 *p.M160*	ST01; ST07 *p.M165*	AOGS Beer Hour
	18:30 - 21:00	AOGS2022 Venue Proposal Presentations: Fukuoka & Melbourne - Venue: 323																	
		Student Volunteer Night - "Night City Tour of Singapore" - Tour Departs SUNTEC at 18:30 Sharp.																	

Date, Time & Room		302	301	303	329	328	330	308	309	310	Nicoll 1	Nicoll 2	327	300	323	304	311	Field Trip 2	Exhibition Hall
Day 5: Fri, 02 August 2019	08:30 - 10:30	AS40 *p.M189*	AS13 *p.M189*	AS33 *p.M185*	HS10 *p.M186*	HS15 *p.M187*	HS32 *p.M186*	ST23 *p.M184*	ST25 *p.M190*	PS10 *p.M187*		SE18 *p.M184*	OS01 *p.M188*	BG11 *p.M190*	IG15 *p.M191*	ST13 *p.M185*	AS04 *p.M188*	"Pulau Ubin" (09:00 - 16:30) Starts & Ends at SUNTEC. By 09:00 - Please assemble at ground floor (below big screen)	Exhibition 10:00 - 16:00 Farewell Reception 15:30 - 16:30
	11:00 - 12:30	AS40 *p.M195*	AS13 *p.M196*	AS33 *p.M193*	HS10 *p.M193*	HS16 *p.M194*	HS33 *p.M193*	ST33 *p.M191*	ST25 *p.M197*	PS10 *p.M194*	SE14 *p.M196*	SE28 *p.M192*	OS01 *p.M195*	BG11 *p.M196*	IG15 *p.M197*	ST12 *p.M192*	AS04 *p.M195*		
	13:30 - 15:30	Special Lecture *p.F20* , Awards & Recognition, AOGS2020 Presentation, Announce Election Results - Venue: Nicoll																	
	16:30 - 21:00	Convener's Dinner - By Invitation Only Coach Departs SUNTEC at 16:30 Sharp - Please assemble at ground floor (below big screen)																	Exhibition Tear Down / Ship-Out By 19:00

VENUE FLOOR PLAN



Day 01

29 Jul, Mon

Day 01 - 29 Jul 2019, Monday
Program Overview

Time / Room	AM1	AM2	PM1	PM2	EVE
	08:30 - 10:30	11:00 - 12:30	13:30 - 15:30	16:00 - 18:00	18:30 - 21:00
MR308	AS05 *p.M5*	AS34 *p.M13*	AS05 *p.M18*		
MR304	AS31 *p.M6*	AS31 *p.M14*	AS26 *p.M19*		
MR303	AS24 *p.M6*	AS24 *p.M14*	AS01 *p.M20*		
MR330	HS02 *p.M7*	HS02 *p.M14*	HS05 *p.M21*		
MR329	HS03 *p.M7*	HS03 *p.M15*	HS03 *p.M21*		
MR328	HS04 *p.M7*	HS20 *p.M15*	HS21 *p.M22*		
MR310	ST03 *p.M8*	ST03 *p.M15*	ST31 *p.M22*		
MR311	ST22 *p.M8*	ST04 *p.M16*	ST04 *p.M23*		
MR327	SE07 *p.M9*	SE11 *p.M16*	SE05 *p.M23*		
MR302	SE17 *p.M9*	SE02 *p.M16*	SE02 *p.M24*		
MR301	OS10 *p.M10*	OS11 *p.M17*	OS11 *p.M24*		
MR300	BG09 *p.M11*	BG09 *p.M18*	BG01 *p.M25*		
MR309	AS03 *p.M11*	AS03 *p.M18*	AS03 *p.M26*		
MR323	IG03 *p.M12*	KL-IG *p.F15* DL-IG *p.F14*	IG13 *p.M26*		
Nicoll 1	OS18 *p.M10*	OS18 *p.M17*	OS18 *p.M25*	Opening *p.F9*	
Nicoll 2	AS22 *p.M5*	AS22 *p.M13*	AS22 *p.M19*		
Nicoll 3	PS03 *p.M12*	KL-PS *p.F17* DL-PS *p.F16*	PS03 *p.M27*		
EXHIBITION HALL					AS1 Posters *p.M28* IG Posters *p.M32* PS Posters *p.M36* Geoscience Challenge *p.F22*

Sessions & Conveners

* Main Convener

AS01-Aerosol and Cloud Observations from Geostationary Platforms - Breaking the Temporal Barriers
*Pawan GUPTA *Universities Space Research Association,* Jhoon KIM *Yonsei University,* Robert LEVY *NASA Goddard Space Flight Center,* Steven PLATNICK *NASA Goddard Space Flight Center*

AS03-Monsoon Climates Over South, East and Southeast Asia in a Warming Environment
*Ramesh KRIPALANI *Indian Institute of Tropical Meteorology,* Kyung-Ja HA *Pusan National University,* Jaiho OH *Pukyong National University,* Venkatraman PRASANNA *Meteorological Service Singapore,* Renguang WU *Zhejiang University*

AS05-Mesoscale Meteorology and High-impact Weather
*Kevin CHEUNG *Macquarie University,* Tieh-Yong KOH *Singapore University of Social Sciences,* Ryo OYAMA *Japan Meteorological Agency,* Chee-Kiat TEO *Centre for Climate Research Singapore,* Cheng-Ku YU *National Taiwan University*

AS22-Middle Atmosphere Science
*Zeyu CHEN *Chinese Academy of Sciences,* Hye-Yeong CHUN *Yonsei University,* S. K. DHAKA *University of Delhi,* Shigeo YODEN *Kyoto University*

AS24-Role of Urbanization on Weather and Climate of Cities
*Anurag DIPANKAR *Meteorological Service Singapore,* Winston CHOW *National University of Singapore,* Hiroyuki KUSAKA *University of Tsukuba*

AS26-Regional Climate Downscaling and Cordex: Challenges and Prospects
*Dong-Hyun CHA *Ulsan National Institute of Science and Technology,* Koji DAIRAKU *National Research Institute for Earth Science and Disaster Resilience,* Jason EVANS *University of New South Wales,* Xuejie GAO *Chinese Academy of Sciences,* Shuyu WANG *Nanjing University*

AS31-Haze: Chemistry, Physics, Meteorology, Emissions, Climate, Processing, Fog, and More. Looking Across Spatial Scales from Regional to Global
*Jason COHEN *Sun Yat-sen University,* Charles ICHOKU *NASA Goddard Space Flight Center,* Daniel NG *TMSI,* Arnico PANDAY *International Centre for Integrated Mountain Development (ICIMOD),* Yun QIAN *Pacific Northwest National Laboratory*

AS34-Aviation Weather Forecasting and Impact of Climate Change
*Jung-Hoon KIM *Seoul National University,* Hye-Yeong CHUN *Yonsei University,* Todd LANE *The University of Melbourne*

BG01-Understanding Carbon and Nitrogen Cycling- from Land to the Sea
*Punyasloke BHADURY *Indian Institute of Science Education and Research Kolkata,* Ajcharaporn PIUMSOMBOON *Chulalongkorn University*

BG09-Biogeochemistry of Contaminants in Terrestrial and Aquatic Ecosystems
*Bhoopesh MISHRA *University of Leeds,* Jiubin CHEN *Tianjin University,* Qiaoyun HUANG *Huazhong Agricultural University,* Man Jae KWON *Korea University*

HS02-Hydrology for Human-nature Coupled Systems
*Kyungrock PAIK *Korea University,* Ting Fong May CHUI *The University of Hong Kong,* Jian-Ping SUEN *National Cheng Kung University,* Gene Jiing-Yun YOU *National Taiwan University*

HS03-Challenges in Hydrologic Modeling
*Bellie SIVAKUMAR *University of New South Wales,* Ji CHEN *The University of Hong Kong,* Shie-Yui LIONG *National University of Singapore,* Dawen YANG *Tsinghua University*

HS04-Dealing with Hydrological Extremes: Theory, Simulation, and Practice
*Ke-Sheng CHENG *National Taiwan University,* Hidetaka CHIKAMORI *Okayama University*

HS05-Hydrological Processes in Agricultural Lands
*Jun NIU *China Agricultural University,* Ji CHEN *The University of Hong Kong,* Bellie SIVAKUMAR *University of New South Wales,* Yiping WU *Xi'an Jiaotong University*

HS20-Monthly to Seasonal Projection of Climatic/hydrological Extremes
*Ji CHEN *The University of Hong Kong,* Hung Soo KIM *Inha University,* Bellie SIVAKUMAR *University of New South Wales*

HS21-Hydrometeorological Analysis of Natural Hazards
*Hung Soo KIM *Inha University,* Ji CHEN *The University of Hong Kong,* Soojun KIM *Inha University,* Bellie SIVAKUMAR *University of New South Wales*

IG03-Near Surface Investigation and Modeling for Groundwater Resources Assessment
*Jet-Chau WEN *National Yunlin University of Science and Technology,* Ping-Yu CHANG *National Central University,* Yue LIANG *Chongqing Jiaotong University,* Jui-Pin TSAI *National Cheng Kung University,* Hwa-Lung YU *National Taiwan University*

IG13-General Session
*Fiona WILLIAMSON *Singapore Management University,* Mylene G. CAYETANO *University of the Philippines-Diliman Institute of Environmental Science and Meteorology,* Kazuhisa GOTO *The University of Tokyo,* Tang-Huang LIN *National Central University,* Xuan Anh NGUYEN *Vietnam Academy of Science and Technology*

OS10-River-influenced Coastal Ecosystems Under the Threat of Anthropogenic Activity and Global Climate Change
*Jie XU *South China Sea Institute of Oceanology,Chinese Academy of Sciences,* Jianfang CHEN *State Oceanic Administration,* Chang-Keun KANG *Gwangju Institute of Science and Technology,* Hongbin LIU *The Hong Kong University of Science and Technology*

OS11-Ocean Circulation and Air-sea Interaction Over the Maritime Continent and Surrounding Waters
*Lei ZHOU *Shanghai Jiao Tong University,* R. Dwi SUSANTO *University of Maryland,* Dongxiao WANG *Chinese Academy of Sciences,* Kunio YONEYAMA *Japan Agency for Marine-Earth Science and Technology,* Wen ZHOU *City University of Hong Kong*

OS18-Coastal Hazards: Impacts of Tropical Storms and Tsunamis
*Philip Li-Fan LIU *National University of Singapore,* Linlin LI *National University of Singapore,* Shie-Yui LIONG *National University of Singapore,* Nobuhito MORI *Kyoto University,* Xiping YU *Tsinghua University*

PS03-Exploration of Mars: New Results, Current Missions and Future Plans
*Joseph MICHALSKI *The University of Hong Kong,* Jun HUANG *China University of Geosciences*

ST03-Magnetosphere-ionosphere Coupling at Earth and Other Planets: Aurorae and the Magnetospheric/ionosphere Dynamics
*Anthony LUI *The Johns Hopkins University*, Quanqi SHI *Shandong University*, Z. H. YAO *University of Liege*, Qiugang ZONG *Peking University*

ST04-Particle Acceleration and Transport at the Sun and in the Heliosphere
*Linghua WANG *Peking University*, Gang LI *The University of Alabama in Huntsville*, Kyoko WATANABE *National Defense Academy of Japan*

ST22-Space Weather Research and Operation in Asia Oceania
*Mamoru ISHII *National Institute of Information and Communications Technology*, JS CHOI *RRA*, I-Te LEE *Meteorological Information Center, CWB*, Pornchai SUPNITI *KMITL*, Clara YATINI *Indonesian National Institute of Aeronautics and Space (LAPAN)*

ST31-Dynamical Processes in the High-latitude Ionosphere and Magnetosphere-ionosphere Coupling
*Qing-He ZHANG *Shandong University*, Jing LIU *National Center for Atmospheric Research*, Yongliang ZHANG *The Johns Hopkins University Applied Physics Laboratory*

SE02-Earthquakes, Volcanoes, and Active Faults in East Asia
*Jianshe LEI *China Earthquake Administration*, Yinshuang AI *Chinese Academy of Sciences*, Chuntao LIANG *Chengdu University of Technology*, O P MISHRA *Ministry of Earth Sciences*, Xiwei XU *China Earthquake Administration*

SE05-Mountain Building Processes with Associated Geohazards and Resources: Integrated Observations and Models
*Chih-Tung CHEN *National Central University*, Kazuaki OKAMOTO *Saitama University*, Xi-Bin TAN *Institute of Geology, China Earthquake Administration*, Hai Thanh TRAN *Hanoi University of Mining and Geology*

SE07-Active Geodynamics, Deformation, Anisotropy And Growth of Eastern Himalaya
*Debasis D. MOHANTY *North East Institute of Science and Technology*, Ritima DAS *University of Cambridge*

SE11-Geophysical Investigation and Structures of the Orogenic Belt and Numerical Modeling
*Xiaoyu GUO *Sun Yat-sen University*, Rui GAO *Sun Yat-sen University*, Lun LI *Sun Yat-sen University*, Jie LIAO *Sun Yat-Sen University, School of Earth Sciences and Engineering*, Xiao XU *Sun Yat-sen University*

SE17-Hydrological Signals in Geodetic Observations: from Space to Ground
*Wei FENG *Chinese Academy of Sciences*, Annette EICKER *HafenCity University Hamburg*, Laurent LONGUEVERGNE *University of Rennes 1*, Pat YEH *Monash University*

AS05 / Mesoscale Meteorology and High-impact Weather

Mon - 29 Jul | MR308

Time 08:30-10:30
Chair(s) Chee-Kiat TEO, *Centre for Climate Research Singapore*

AS05-D1-AM1-308-001 | AS05-A011

Improvements of Heavy Rainfall and Typhoon Forecasts Reproduced by Super-computer 'K'
Hiromu SEKO[1#+], Masaru KUNII[1], Yohei SAWADA[1], Kozo OKAMOTO[1], Kosuke ITO[2], Kazuki SHIMOJI[1]
[1]Japan Meteorological Agency, [2]University of the Ryukyus

AS05-D1-AM1-308-002 | AS05-A036

A Storm-scale Ensemble Forecast System with Convection-allowing Model Grid for High Impact Weather Prediction in Southern China
Fanyou KONG[1#+], Deli WANG[2], Xunlai CHEN[2]
[1]University of Oklahoma, [2]Shenzhen Meteorological Bureau

AS05-D1-AM1-308-003 | AS05-A016 (Invited)

Convection-scale Numerical Weather Prediction System for Singapore
Xiang-Yu HUANG[1#+], Dale BARKER[2], Stuart WEBSTER[2], Anurag DIPANKAR[3], Marion MITTERMAIER[2], Xiangming SUN[1], Rachel NORTH[2], Rob DARVELL[2], Douglas BOYD[2], Jeff LO[1], Jianyu LIU[1], Bruce MACPHERSON[2], Boon Chong Peter HENG[3], Adam MAYCOCK[2], Laura PITCHER[2], Graeme KELLY[2], Bob TUBBS[2], Martin MCMILLAN[2], Sijin ZHANG[1], Susanna HAGELIN[2], Aurore PORSON[2], Song GUITING[1], Becky BECKETT[2], Wee Kiong CHEONG[1], Allison SEMPLE[2], Chris GORDON[1]
[1]Centre for Climate Research Singapore, [2]Met Office, [3]Meteorological Service Singapore

AS05-D1-AM1-308-004 | AS05-A020 (Invited)

Can Limited-area Mesoscale Models Forecast Tropical Cyclones?
Michael FIORINO[1#+], Richard ANTHES[2], Poushali GHOSH[3]
[1]University of Colorado Boulder, [2]University Corporation for Atmospheric Research, [3]Millersville State University

AS05-D1-AM1-308-005 | AS05-A012

Quantitative Estimation of Gusty Winds in a Densely-built, Urban District During Typhoon Jebi (2018) by Merging Mesoscale Meteorological and Large Eddy Simulations
Tetsuya TAKEMI[1#+], Toshiya YOSHIDA[1], Shota YAMASAKI[1], Kentaro HASE[1]
[1]Kyoto University

AS05-D1-AM1-308-006 | AS05-A031

The Effect of Ocean Waves on an Explosive Cyclone Development: Investigation with a Coupled Model
Yuki KITA[1#+], Takuji WASEDA[1]
[1]The University of Tokyo

AS05-D1-AM1-308-007 | AS05-A035

Impact of DWR Data Assimilation on the Simulation of MCS Events Related with Lightning
Mohan Kumar DAS[1#+], S DAS[2], S KARMAKAR[3], AKM S ISLAM[1], Fatima AKTER[4]
[1]Bangladesh University of Engineering and Technology, [2]Central University of Rajasthan, [3]National Oceanographic and Maritime Institute, [4]University of Dhaka

AS22 / Middle Atmosphere Science

Mon - 29 Jul | Nicoll 2

Time 08:30-10:30
Chair(s) Zeyu CHEN, *Chinese Academy of Sciences*
Hye-Yeong CHUN, *Yonsei University*

AS22-D1-AM1-Nicoll 2-001 | AS22-A040 (Invited)

Stratospheric Ozone-induced Cloud Radiative Effects on Antarctic Sea Ice
Yongyun HU[1#+], Yan XIA[1]
[1]Peking University

AS22-D1-AM1-Nicoll 2-002 | AS22-A011 (Invited)

Influence of Tropical Lower Stratospheric Cooling on Extreme Deep Convective Activity and Tropical Cyclones
Kunihiko KODERA[1#+], Nawo EGUCHI[2], Rei UEYAMA[3], Beatriz FUNATSU[4], Chantal CLAUD[5]
[1]Japan Meteorological Agency, [2]Kyushu University, [3]NASA Ames Research Center, [4]Université de Nantes, [5]Ecole Polytechnique

AS22-D1-AM1-Nicoll 2-003 | AS22-A006 (Invited)

SSW Influence on the Tropical Troposphere with High Resolution Large Ensemble Simulations
Kohei YOSHIDA[1#+], Ryo MIZUTA[1]
[1]Japan Meteorological Agency

AS22-D1-AM1-Nicoll 2-004 | AS22-A022

Correlations Between QBO Phases and Long-term Variations of 6.5DWs and 2DWs
Yingying HUANG[1#+]
[1]Sun Yat-sen University

AS22-D1-AM1-Nicoll 2-005 | AS22-A026

Downward Propagation of Planetary Wave Packets from the Stratosphere to the Troposphere During Northern Hemisphere Winter
Toshihiko HIROOKA[1#+], Yuya MATSUYAMA[1]
[1]Kyushu University

AS22-D1-AM1-Nicoll 2-006 | AS22-A018

Stratospheric Harbingers of the Wintertime Intraseasonal Cold Events over the North America
Xiaocen SHEN[1+], Lin WANG[2#]
[1]Institute of Atmospheric Physics, Chinese Academy of Sciences, [2]Chinese Academy of Sciences

AS22-D1-AM1-Nicoll 2-007 | AS22-A023

Relation of the Interannual Variability of the Stratospheric Wave Forcing and Zonal Mean Fields Suggesting an Interhemispheric Link in the Stratosphere
Yuki MATSUSHITA[1#+], Daiki KADO[1], Masashi KOHMA[1], Kaoru SATO[1]
[1]The University of Tokyo

AS22-D1-AM1-Nicoll 2-008 | AS22-A014

QBO-like Oscillation in a Three-dimensional Minimal Model Framework of the Stratosphere-Troposphere Coupled System
Shigeo YODEN[1#+], Hai BUI[2], Eriko NISHIMOTO[3]
[1]Kyoto University, [2]University of Bergen, [3]Japan Agency for Marine-Earth Science and Technology

AS31 / Haze: Chemistry, Physics, Meteorology, Emissions, Climate, Processing, Fog, and More. Looking Across Spatial Scales from Regional to Global

Mon - 29 Jul | MR304

Time 08:30-10:30

Chair(s) Chien WANG, *National Center for Scientific Research/ Université Toulouse III*
Jianping GUO, *Chinese Academy of Meteorological Sciences*

AS31-D1-AM1-304-001 | AS31-A020

Comparison and Evaluation of the Impacts of Anthropogenic Sulphate Aerosols on Precipitation and Intensity of Tropical Cyclones
Ruimin LI[1#+], Daniel Hui Loong NG[1,2], Jina HUR[1], Srivatsan VIJAYARAGHAVAN[1], Shie-Yui LIONG[1]
[1]National University of Singapore, [2]Tropical Marine Science Institute

AS31-D1-AM1-304-002 | AS31-A005

Impact of Meteorology and Climate Change on Ozone Pollution in China
Zhongjing JIANG[1+], Jing LI[1#]
[1]Peking University

AS31-D1-AM1-304-003 | AS31-A014

The Impact of Biomass Burning Aerosols on Convective Systems in Southeast Asia
Hsiang-He LEE[1#+], Chien WANG[2]
[1]Lawrence Livermore National Laboratory, [2]National Center for Scientific Research/ Université Toulouse III

AS31-D1-AM1-304-004 | AS31-A011

Synergetic Impact of the Thermal Anomalies of Tibetan Plateau and Arctic on Haze Pollution in Eastern China
Xiaoyun SUN[1#+], Tianliang ZHAO[1], Xiangde XU[2], Sunling GONG[2], Xiaodan MA[1]
[1]Nanjing University of Information Science & Technology, [2]Chinese Academy of Meteorological Sciences

AS31-D1-AM1-304-005 | AS31-A018

Impacts of Biomass Burning Aerosols on Precipitation over Southeast Asia
Daniel Hui Loong NG[1,2#+], Ruimin LI[1], Srivatsan VIJAYARAGHAVAN[1], Shie-Yui LIONG[1]
[1]National University of Singapore, [2]Tropical Marine Science Institute

AS31-D1-AM1-304-006 | AS31-A010

A Study on Haze Transport in Vertically Sensitive Regions Globally
Chuyong LIN[1+], Jason COHEN[1#]
[1]Sun Yat-sen University

AS31-D1-AM1-304-007 | AS31-A015

Development of Fog Detection Algorithm Throught Correlation Analysis by Himawari-8 Data and Ground Observation
Hanbyul LEE[1+], Junhyung HEO[1], Eunha SOHN[1#], Jaedong JANG[1]
[1]Korea Meteorological Administration

AS24 / Role of Urbanization on Weather and Climate of Cities

Mon - 29 Jul | MR303

Time 08:30-10:30

Chair(s) Anurag DIPANKAR, *Meteorological Service Singapore*
Hiroyuki KUSAKA, *University of Tsukuba*

AS24-D1-AM1-303-001 | AS24-A003

Heat Stress Quantification in Urban Micro Scale – Applications of RayMan and SkyHelios Model
Andreas MATZARAKIS[1#+]
[1]German Meteorological Service

AS24-D1-AM1-303-002 | AS24-A007

Past and Future Urbanization of Southeast Asian Capital-cities and its Impacts on the Local Climate
Hiroyuki KUSAKA[1#+], Quang-Van DOAN[2], Lidia VITANOVA[1]
[1]University of Tsukuba, [2]Centre for Climate Research Singapore

AS24-D1-AM1-303-003 | AS24-A008

Urban Heat Islands Shield Residents from Extreme Cold
Jiachuan YANG[1#+], Elie BOU-ZEID[2], Leiqiu HU[3]
[1]The Hong Kong University of Science and Technology, [2]Princeton University, [3]The University of Alabama in Huntsville

AS24-D1-AM1-303-004 | AS24-A011

Asian Megacity Heat Stress Under Future Climate Scenarios: Impacts of Air-conditioning Feedbacks
Yuya TAKANE[1#+], Yukitaka OHASHI[2], Sue GRIMMOND[3], Masayuki HARA[4], Yukihiro KIKEGAWA[5]
[1]National Institute of Advanced Industrial Science and Technology, [2]Okayama University of Science, [3]University of Reading, [4]Center for Environmental Science in Saitama, [5]Meisei University

AS24-D1-AM1-303-005 | AS24-A012

Urban Thermal Influence on the Background Environment of Convective Precipitation
Hirofumi SUGAWARA[1#+], Ryoko ODA[2], Naoko SEINO[3]
[1]National Defense Academy of Japan, [2]Chiba Institute of Technology, [3]Japan Meteorological Agency

AS24-D1-AM1-303-006 | AS24-A019

Evaluation of the Impact of Urban Morphology, Geography and Background Climate on the Urban Heat Island in 28 Mega Cities
Makoto NAKAYOSHI[1#+], Mayu ASAMI[1], Varuquez ALVIN C.G.[2], Manabu KANDA[2]
[1]Tokyo University of Science, [2]Tokyo Institute of Technology

AS24-D1-AM1-303-007 | AS24-A022

Estimation of Urban Energy Balance Components over Indian Metropolitan Cities Using Satellite Remote Sensing Techniques
Satyanarayana A.N.V[1#+], Sabiha SULTANA[1]
[1]Indian Institute of Technology Kharagpur

AS24-D1-AM1-303-008 | AS24-A024

A Comprehensive, High-resolution Anthropogenic Heat Flux Database for Singapore
Wenhui HE[1#+], Xianxiang LI[1], Leslie NORFORD[2]
[1]Singapore-MIT Alliance for Research and Technology, [2]Massachusetts Institute of Technology

HS02 / Hydrology for Human-nature Coupled Systems

Mon - 29 Jul | MR330

Time 08:30-10:30
Chair(s) Ting Fong May CHUI, *The University of Hong Kong*

HS02-D1-AM1-330-001 | HS02-A010

The Strategy of Environmental Flow Management with Drought Indicators
Yusyuan CAI[1+], Jian-Ping SUEN[1#]
[1]National Cheng Kung University

HS02-D1-AM1-330-002 | HS02-A014 (Invited)

Climate or Land Use Change? Salinity and Decreasing Discharge in the Goulburn River
Ian WHITE[1#+], Julia IMRIE[1], Peter SOMERVILLE[1], Tingbao XU[1]
[1]Australian National University

HS02-D1-AM1-330-003 | HS02-A013

Surface Water Demand, Supply, and Connectivity Across Watersheds in the United States
Kai DUAN[1#+], Peter CALDWELL[2], Ge SUN[2]
[1]Sun Yat-sen University, [2]USDA Forest Service

HS02-D1-AM1-330-004 | HS02-A015

Promotion of Water Resources Carrying Capacity and Water Resources Joint Allocation in Xiong'an New Area, China
Baodeng HOU[1#+]
[1]China Institute of Water Resources and Hydropower Research

HS02-D1-AM1-330-005 | HS02-A007

On the Value of ENSO State for Urban Water Supply System Operators: Opportunities, Trade-offs, and Challenges
Christoph LIBISCH-LEHNER[1,2], Hung NGUYEN[3+], Riccardo TAORMINA[3], Hans-Peter NACHTNEBEL[2], Stefano GALELLI[3#]
[1]Pöyry Austria GmbH, [2]University of Natural Resources and Life Sciences, [3]Singapore University of Technology and Design

HS02-D1-AM1-330-006 | HS02-A011

Input-output Analysis of Taiwan's Food-energy-water Risk
Chu-Chun YAO[1#+], Gene Jiing-Yun YOU[1]
[1]National Taiwan University

HS02-D1-AM1-330-007 | HS02-A002

Spatial Variation of Vegetation Index in Asia and Australia Indicates Strong Influence of Climatic and Topographic Settings
Kwanghun CHOI[1#+], Kyungrock PAIK[1]
[1]Korea University

HS03 / Challenges in Hydrologic Modeling

Mon - 29 Jul | MR329

Time 08:30-10:30
Chair(s) Bellie SIVAKUMAR, *University of New South Wales*

HS03-D1-AM1-329-001 | HS03-A012

Evaluation of Flood Prediction Capability of the Distributed Grid-Xinanjiang Model Driven by WRF Precipitation
Cheng YAO[1#+]
[1]Hohai University

HS03-D1-AM1-329-002 | HS03-A003

The Influence Mechanism of Nonlinear System on Precipitation Infiltration
Yujiang HE[1#+]
[1]Institute of Hydrogeology and Environmental Geology

HS03-D1-AM1-329-003 | HS03-A008

Complex Networks for Temporal Streamflow Dynamics: Network Construction Using Chaos Theory
Bellie SIVAKUMAR[1,2#+], Nazly YASMIN[1], Jun NIU[3]
[1]University of New South Wales, [2]Indian Institute of Technology Bombay, [3]China Agricultural University

HS03-D1-AM1-329-004 | HS03-A024

Long Term Discharge Estimation for Tropical Watershed, Indonesia
Marliana Tri WIDYASTUTI[1#+], Muh TAUFIK[2]
[1]Bogor Agricultural University, [2]IPB University

HS04 / Dealing with Hydrological Extremes: Theory, Simulation, and Practice

Mon - 29 Jul | MR328

Time 08:30-10:30
Chair(s) Ke-Sheng CHENG, *National Taiwan University*

HS04-D1-AM1-328-001 | HS04-A011

Runoff Analysis Under the Conception of Uncertainty Based on the Theory of Stochastic Differential Equation
Daiwei CHENG[1#+], Tadashi YAMADA[1], Tomohito J. YAMADA[2]
[1]Chuo University, [2]Hokkaido University

HS04-D1-AM1-328-002 | HS04-A012

Stochastic Simulation of Peak Flows for Flood Risk Assessment in Yom River Basin
Cholticha ARSSIRI[1], Piyatida RUANGRASSAMEE[1#+]
[1]Chulalongkorn University

HS04-D1-AM1-328-003 | HS04-A001

On the Statistical Distribution of Occurrences of Over-dispersed Durational Events
Ke-Sheng CHENG[1#+], Bo-Yu CHEN[1]
[1]National Taiwan University

HS04-D1-AM1-328-004 | HS04-A009

Temporal Changes in Geomorphic Effectiveness of Floods in Regulated River Basins
Chandan PRADHAN[1#+], Sangita PANI[2], Subashisa DUTTA[1], Rishikesh BHARTI[3]
[1]Indian Institute of Technology Guwahati, [2]STUDENT, [3]ASSISTANT PROFESSOR

HS04-D1-AM1-328-005 | HS04-A013

Flood Simulations in Mid-latitude Agricultural Land Using Current and Future Extreme Weathers
Nobuaki KIMURA[1#+], Hirohide KIRI[1]
[1]National Agriculture and Food Research Organization

HS04-D1-AM1-328-006 | HS04-A014

Characterizations of Annual Maximum Flood Peaks over China
Long YANG[1#+], Jie GAO[2], Xiang LI[3], Aizhong HOU[4], La-Chun WANG[5]
[1]Nanjing University, [2]China Renewable Energy Engineering Institute, [3]Institute of Water Resources and Hydropower Research, [4]Ministry of Water Resources, [5]The Key Laboratory of Coast & Island Development

HS04-D1-AM1-328-007 | HS04-A010

A Proposal of Hydrological Frequency Analysis Based on Confidence Interval and Prediction Interval
Keita SHIMIZU[1#+], Tadashi YAMADA[1], Tomohito J. YAMADA[2]
[1]Chuo University, [2]Hokkaido University

HS04-D1-AM1-328-008 | HS04-A007

Statistical Evaluation of Outliers of Extreme Values in Daily Rainfall Records in Japan by Using Regional Frequency Analysis
Hidetaka CHIKAMORI[1#+]
[1]Okayama University

ST03 / Magnetosphere-ionosphere Coupling at Earth and Other Planets: Aurorae and the Magnetospheric/ionosphere Dynamics

Mon - 29 Jul | MR310

Time 08:30-10:30
Chair(s) Anthony LUI, *The Johns Hopkins University*
Quanqi SHI, *Shandong University*

ST03-D1-AM1-310-001 | ST03-A002

The Effects of Solar Wind Dynamic Pressure Changes on the Substorm Auroras and Energetic Electron Injections
Liuyuan LI[1#+], Zhi-Qiang WANG[2]
[1]Beihang University, [2]Nanjing University of Aeronautics and Astronautics

ST03-D1-AM1-310-002 | ST03-A001 (Invited)

Energetic Particle Precipitation into Earth's Atmosphere: Spatial Structure and Magnetospheric Energy Input to the Ionosphere
Drew TURNER[1#+]
[1]The Aerospace Corporation

ST03-D1-AM1-310-003 | ST03-A005

Quantitative Study of Periodic Auroral Fingers
Wenrui WANG[1,2#+], Jian YANG[2], Yongfu WANG[3], Quanqi SHI[4], Jun CUI[1,5]
[1]Sun Yat-sen University, [2]Southern University of Science and Technology, [3]Peking University, [4]Shandong University, [5]Chinese Academy of Sciences

ST03-D1-AM1-310-004 | ST03-A006

Generation of Electron Acoustic Waves in the Topside Ionosphere from Coupling with Kinetic Alfven Waves
Run SHI[1#+]
[1]Wuhan University

ST03-D1-AM1-310-005 | ST03-A003 (Invited)

New Auroral Features Revealed by the High-resolution Camera Onboard the Chinese Fengyun Satellite
Fei HE[1+], Xiao-Xin ZHANG[2#], Yong WEI[1], Zuyin PU[3], Weixing WAN[1]
[1]Chinese Academy of Sciences, [2]National Center for Space Weather, China Meteorological Administration, [3]Peking University

ST03-D1-AM1-310-006 | ST03-A012

An Auroral Streamer that Emerged Between the Auroral Poleward Boundary and Onset Arc Before Substorm Initial Brightening
Yukinaga MIYASHITA[1#+], Akimasa IEDA[2], Shinobu MACHIDA[2], Vassilis ANGELOPOULOS[3]
[1]Korea Astronomy and Space Science Institute, [2]Nagoya University, [3]University of California, Los Angeles

ST03-D1-AM1-310-007 | ST03-A011

Shear-flow Driven Aurora
Jay JOHNSON[1#+], Simon WING[2], Peter DELAMERE[3]
[1]Andrews University, [2]The Johns Hopkins University, [3]University of Alaska Fairbanks

ST22 / Space Weather Research and Operation in Asia Oceania

Mon - 29 Jul | MR311

Time 08:30-10:30
Chair(s) Mamoru ISHII, *National Institute of Information and Communications Technology*

ST22-D1-AM1-311-001 | ST22-A009

The Recent Activities of R2O Transition in Korean Space Weather Operation
Seung Jun OH[1#+], Kyu-Cheol CHOI[1], Jeong-Deok LEE[1], Sangwoo LEE[1]
[1]SELab, Inc

ST22-D1-AM1-311-002 | ST22-A005

Current Status of Ionospheric Space Weather Products in Taiwan
I-Te LEE[1,2#+], Mark CHENG[1], Jyun-Ying HUANG[1], Hsu-Hui HO[1]
[1]Central Weather Bureau, [2]National Central University

ST22-D1-AM1-311-003 | ST22-A011

NICT Ionospheric Observations in Japan and Southeast Asia
Takuya TSUGAWA[1#+], Kornyanat HOZUMI[1], Hideo MAENO[1], Michi NISHIOKA[1], Mamoru ISHII[1]
[1]National Institute of Information and Communications Technology

ST22-D1-AM1-311-004 | ST22-A007

Radio Propagation Simulator to Translate Ionospheric Effect on High Frequency Waves
Kornyanat HOZUMI[1#+], Hiroyuki NAKATA[2], Susumu SAITO[3], Takuya TSUGAWA[1], Mamoru ISHII[1]
[1]National Institute of Information and Communications Technology, [2]Chiba University, [3]Electronic Navigation Research Institute

ST22-D1-AM1-311-005 | ST22-A004

The Relationship Between Equatorial Plasma Bubble and Evening Counter Electrojet Current Measured in West of Southeast Asia
Nurul Shazana ABDUL HAMID[1#+], Siti Fatimah Azzahrah AHMAD NOH[1], Mardina ABDULLAH[1], Suhaila M. BUHARI[2], IdahWati SARUDIN[1], Wan Nur Izzaty ISMAIL[1], Akimasa YOSHIKAWA[3]
[1]Universiti Kebangsaan Malaysia, [2]Universiti Teknologi Malaysia, [3]Kyushu University

ST22-D1-AM1-311-006 | ST22-A003

ROTI Map Generation over Thailand
Pornchai SUPNITHI[1#+], Sukit SOPHAN[1]
[1]King Mongkut's Institute of Technology Ladkrabang

ST22-D1-AM1-311-007 | ST22-A002

Low-latitude Ionospheric Irregularities in June Solstice Observed by Equatorial Atmosphere Radar and GPS Receivers
Prayitno ABADI[1#+], Yuichi OTSUKA[2], Slamet SUPRIYADI[1], Clara YATINI[1], Mamoru YAMAMOTO[3], Musthofa LATHIF[1]
[1]Indonesian National Institute of Aeronautics and Space (LAPAN), [2]Nagoya University, [3]Kyoto University

ST22-D1-AM1-311-008 | ST22-A001

Equatorial Ionosphere Disturbance Index Based on BDS-GEO Data
Artem PADOKHIN[1#+], Yulia TUMANOVA[1], Nikita TERESHIN[1]
[1]Lomonosov Moscow State University

SE07 / Active Geodynamics, Deformation, Anisotropy And Growth of Eastern Himalaya

Mon - 29 Jul | MR327

Time 08:30-10:30
Chair(s) Debasis D. MOHANTY, *North East Institute of Science and Technology*

SE07-D1-AM1-327-001 | SE07-A004 (Invited)

The Ailao Shan-Red River Shear Zone Revisited: Timing and Tectonic Implications
Junlai LIU[1#+], Xiaoyu CHEN[1], Yuan TANG[2], Zhijie SONG[1]
[1]China University of Geosciences (Beijing), [2]Chengdu Institute of Geology and Mineral Resources

SE07-D1-AM1-327-002 | SE07-A013

Eocene-oligocene Transition of the Imphal Valley in the Tectonic Evolution of the Eastern Himalaya and the Indo-Myanmar Ranges
S.Ranjeeta DEVI[1#+]
[1]Manipur University

SE07-D1-AM1-327-003 | SE07-A012

Sub-surface Imaging and Site Characterization of Shillong City, Meghalaya by Multichannel Analysis of Surface Waves (MASW) and Non Linear Earthquake Site Response Analysis (NERA)
Goutam Kashyap BORUAH[1,2#+], Saurabh BARUAH[1], Anurup GOHAIN BARUA[2]
[1]CSIR-North-East Institute of Science and Technology, [2]Gauhati University

SE07-D1-AM1-327-004 | SE07-A015

Pleistocene Rapid Decrease in Extensional Exhumation Implies Tectonic Changes in SE Tibet
Xuhua SHI[1,2#+], Chun FAN[3], Paula FIGUEIREDO[4], Dewen ZHENG[5], Rong YANG[1], Rafael ALMEIDA[6], Lewis A. OWEN[4], Erchie WANG[5], Zhigang LI[7], Gang WANG[8], Ray WELDON[9]
[1]Zhejiang University, [2]Nanyang Technological University, [3]China University of Geosciences (Beijing), [4]University of Cincinnati, [5]Chinese Academy of Sciences, [6]Yachay Tech University, [7]Sun Yat-sen University, [8]Chengdu University of Technology, [9]University of Oregon

SE07-D1-AM1-327-005 | SE07-A006

Variations in Anisotropic Behaviour Under Northeast Indian Lithosphere Inferred from Core Refracted Phases
Debasis D. MOHANTY[1,2#+], Poulommi MONDAL[1]
[1]North East Institute of Science and Technology, [2]Academy of Scientific and Industrial Research (AcSIR)

SE17 / Hydrological Signals in Geodetic Observations: from Space to Ground

Mon - 29 Jul | MR302

Time 08:30-10:30
Chair(s) Wei FENG, *Chinese Academy of Sciences*

SE17-D1-AM1-302-001 | SE17-A004 (Invited)

Estimating Aquifer Specific Yields from Gravity Surveys in Taiwan
Cheinway HWANG[1#+], Kuan-Hung CHEN[1], Liang CHANG[1]
[1]National Chiao Tung University

SE17-D1-AM1-302-002 | SE17-A014

Monitoring and Potential Downscaling of Aquifer Groundwater Storage Changes Using Space Gravimetry
C. K. SHUM[1,2#+], Yu ZHANG[1], Chaoyang ZHANG[1], Orhan AKYILMAZ[3], Wei FENG[2], Ehsan FOROOTAN[4], Junyi GUO[1], Chung-Yen KUO[5], Maike SCHUMACHER[4]
[1]The Ohio State University, [2]Chinese Academy of Sciences, [3]Istanbul Technical University, [4]University of Hohenheim, [5]National Cheng Kung University

SE17-D1-AM1-302-003 | SE17-A001

Geodetic and Hydrological Measurements Reveal the Recent Acceleration of Groundwater Depletion in North China Plain
Bao ZHANG[1#+], Yibin YAO[1], Linyang XIN[1], Qian ZHAO[2]
[1]Wuhan University, [2]China Earthquake Administration

SE17-D1-AM1-302-004 | SE17-A002 (Invited)

ENSO Modulation of Global Sea Level Variations Through Land Hydrological Processes
Min-Hui LO[1#+], Li-Wei CHAO[1], John REAGER[2], Yoshihide WADA[3,4], Vincent HUMPHREY[5], Hrishi CHANDANPURKAR[2], Chia-Wei HSU[6], Ben HAMLINGTON[2]
[1]National Taiwan University, [2]NASA Jet Propulsion Laboratory, [3]NASA Goddard Institute for Space Studies/ Columbia University, [4]Utrecht University, [5]ETH Zürich, [6]University of California Irvine

SE17-D1-AM1-302-005 | SE17-A009

Validation of Grace Terrestrial Water Storage Estimates by in Situ Observations and the Combined Land-atmosphere Water Budget Analysis in Illinois
Pat YEH[1#+], Rachel KOH[2], Zhiyong HUANG[3]
[1] Monash University, [2]Singapore University of Technology and Design, [3]The University of Hong Kong

SE17-D1-AM1-302-006 | SE17-A012

Inter-annual Terrestrial Water Storage Changes in the Lake Baikal Region from Satellite Gravimetry
Jin LI[1#+], Jianli CHEN[2], Songyun WANG[1], Lu TANG[1], Xiaogong HU[1]
[1]Chinese Academy of Sciences, [2]The University of Texas at Austin

SE17-D1-AM1-302-007 | SE17-A011

Total Water Storage Change in Global Outflow River Basins and its Contribution to Sea Level Change by Grace
Xiaolong LI[1#+], Taoyong JIN[1]
[1]Wuhan University

SE17-D1-AM1-302-008 | SE17-A005

Substantial Meltwater Contribution to the Brahmaputra Revealed by Satellite Gravimetry
Shuang YI[1#+], Kosuke HEKI[2], Chunqiao SONG[3], Shichang KANG[3]
[1]University of Stuttgart, [2]Hokkaido University, [3]Chinese Academy of Sciences

OS10 / River-influenced Coastal Ecosystems Under the Threat of Anthropogenic Activity and Global Climate Change

Mon - 29 Jul | MR301

Time 08:30-10:30
Chair(s) Jie XU, *South China Sea Institute of Oceanology,Chinese Academy of Sciences*

OS10-D1-AM1-301-001 | OS10-A002 (Invited)

Long-term Changes of Nutrient Regime and Ecological Effects in the Bohai Sea
Baodong WANG[1#+], Ming XIN[2]
[1]The First Institute of Oceanography, Ministry of Natural Resources, [2]Ministry of Natural Resources

OS10-D1-AM1-301-002 | OS10-A007 (Invited)

Comparative Trophic Structures Between Two Contrasting Estuarine Ecosystems with and Without a Sea Dike
Hyun Je PARK[1#+], Jung Hyun KWAK[1], Young-Jae LEE[2], Hee Yoon KANG[2], Eun Jung CHOY[3], Chang-Keun KANG[2]
[1]Gangneung-Wonju National University, [2]Gwangju Institute of Science and Technology, [3]Korea Polar Research Institute

OS10-D1-AM1-301-003 | OS10-A003 (Invited)

Modeled Phytoplankton Response to the Offshore Transport of the Pearl River Plume
Peng XIU[1#+], Bingxu GENG[1], Fei CHAI[2]
[1]Chinese Academy of Sciences, [2]Second Institute of Oceanography

OS10-D1-AM1-301-004 | OS10-A005

Numerical Estimation of Hydraulic and Ecological Changes Under Climate Changes in Saemangeum Basin, South Korea
Hyung-Ju YOO[1+], Dong Hyun KIM[1], Hong-Teak KIM[1], Seungoh LEE[1#]
[1]Hongik University

OS10-D1-AM1-301-005 | OS10-A001

Biogeochemical Role of Urea in the South China Sea
Ling CHEN[1#+]
[1]Xiamen University

OS10-D1-AM1-301-006 | OS10-A011

Pelagic and Benthic Microalgal Production Fuel the Nektonic Food Web in a Temperate Estuarine and Coastal System Exposed to Low-turbid Riverine Discharge in Korea
Goutam Kumar KUNDU[1+], Yoonja KANG[1#], Hyun-Jung KIM[2], Hee Yoon KANG[1], Chang-Ho MOON[3], Chang-Keun KANG[1], Young-Jae LEE[1]
[1]Gwangju Institute of Science and Technology, [2]Marine Eco-Technology Institute, [3]Pukyung National University

OS10-D1-AM1-301-007 | OS10-A008

Seasonal Variation of Biogenic Elements and Phytoplankton Biomass in a Temperate Bay of Korea Subjected to Low-turbidity River Water Discharge
Riaz BIBI[1#+], Yoonja KANG[1], Young-Jae LEE[1], Hee Yoon KANG[1], Dongyoung KIM[1], Jaebin JANG[1], Chang-Keun KANG[1]
[1]Gwangju Institute of Science and Technology

OS10-D1-AM1-301-008 | OS10-A014

Spatiotemporal Variability in Phosphorus Species in the Pearl River Estuary: Influence of the River Discharge
Ruihuan LI[1+], Jie XU[2#], Xiangfu LI[1], Zhen SHI[1], Paul J. HARRISON[3]
[1]Chinese Academy of Sciences, [2]South China Sea Institute of Oceanology,Chinese Academy of Sciences, [3]University of British

OS18 / Coastal Hazards: Impacts of Tropical Storms and Tsunamis

Mon - 29 Jul | Nicoll 1

Time 08:30-10:30
Chair(s) Philip Li-Fan LIU, *National University of Singapore*

OS18-D1-AM1-Nicoll 1-001 | OS18-A003 (Invited)

A Note on Effect of Dynamic Rupture Process in Strike Direction of a Long Fault on Tsunami Propagation
Hua LIU[1#+], Zhiyuan REN[2]
[1]Shanghai Jiao Tong University, [2]National Marine Environmental Forecasting Center

OS18-D1-AM1-Nicoll 1-002 | OS18-A009

Propagation of Undular Bores Around a Conical Island
Zhisong LI[1+], Hua LIU[1#]
[1]Shanghai Jiao Tong University

OS18-D1-AM1-Nicoll 1-003 | OS18-A024

Resonance Characteristics of Tsunami Wave Around Circular Islands
Xingyu GAO[1+], Xiaojing NIU[1#]
[1]Tsinghua University

OS18-D1-AM1-Nicoll 1-004 | OS18-A059

Observe Tsunami Signatures in Space Using the Total Electron Content Derived from Existing Ground-based GPS Receivers
Jann-Yenq (Tiger) LIU[1#+], Chi-Yen LIN[1], Yu-Lin TSAI[1], Tien-Chi LIU[1], Katsumi HATTORI[2], Y. SUN[3], Tso-Ren WU[1]
[1]National Central University, [2]Chiba University, [3]Kyushu University

OS18-D1-AM1-Nicoll 1-005 | OS18-A014

Prediction of Tsunami Waves by Uniform Slip Models
Chao AN[1#+], Hua LIU[1], Zhiyuan REN[2]
[1]Shanghai Jiao Tong University, [2]National Marine Environmental Forecasting Center

OS18-D1-AM1-Nicoll 1-006 | OS18-A015

Simulation of the 2007 Chehalis Lake Landslide-generated Tsunami with SPH
Alex GHAÏTANELLIS[1#+], Damien VIOLEAU[2], Philip Li-Fan LIU[1], Agnès LEROY[2], Martin FERRAND[3]
[1]National University of Singapore, [2]EDF R&D and Saint-Venant Laboratory for Hydraulics, [3]EDF R&D

OS18-D1-AM1-Nicoll 1-007 | OS18-A005

A General Frictional-collisional Model for Dry Granular Flows of Small and Large Particles
Kang HE[1+], Xiping YU[1#]
[1]Tsinghua University

OS18-D1-AM1-Nicoll 1-008 | OS18-A052

Tsunami Hazard Assessments with Consideration of Uncertain Bathymetry
Ignacio SEPULVEDA[1#+], Jennifer HAASE[2], Philip Li-Fan LIU[3], Mircea GRIGORIU[4]
[1]University of California, San Diego, [2]Scripps Institution of Oceanography, [3]National University of Singapore, [4]Cornell University

BG09 / Biogeochemistry of Contaminants in Terrestrial and Aquatic Ecosystems

Mon - 29 Jul | MR300

Time 08:30-10:30
Chair(s) Bhoopesh MISHRA, *University of Leeds*

BG09-D1-AM1-300-001 | BG09-A018 (Invited)

Tracking a Bloom of Large Marine Centric Planktonic Diatom in the Coastal Bay of Bengal- Integrating Microscopy with Molecular Tools
Punyasloke BHADURY[1#+]
[1]Indian Institute of Science Education and Research Kolkata

BG09-D1-AM1-300-002 | BG09-A005

Nitrogen Migration and Transformation Mechanism in River Courses Restored by Reclaimed Water
Hongmei BU[1#+], Xianfang SONG[1]
[1]Chinese Academy of Sciences

BG09-D1-AM1-300-003 | BG09-A002

Marine Microplastics: A Transport Vector for Non-native Cyanobacteria
Emily CURREN[1#+]
[1]National University of Singapore

BG09-D1-AM1-300-004 | BG09-A001

Performance Evaluation of Sequential Constructed Wetland Microbial Fuel Cells for Wastewater Flow
Somil THAKUR[1#+], Muthyala SAI CHAITHANYA[1], Bhaskar DAS[1]
[1]VIT University

BG09-D1-AM1-300-005 | BG09-A012

Biota-sediment Accumulation and Translocation of Heavy Metals in Corbicula Fluminea from Laguna de Bay, Philippines
Marlon ELVIRA[1#+], Decibel FAUSTINO-ESLAVA[1], Mayuko FUKUYAMA[2], Emmanuel Ryan DE CHAVEZ[1], Lorele TRINIDAD[1]
[1]University of the Philippines Los Baños, [2]Akita University

BG09-D1-AM1-300-006 | BG09-A006 (Invited)

Zn Speciation and Transformation in Soils and Sediments Along the Ground Transportation Route of Zn Ore to a Refinery
Man Jae KWON[1#+], Maxim BOYANOV[2], Kenneth KEMNER[3], Edward O'LOUGHLIN[3], Bhoopesh MISHRA[4], Soo-kyung JEON[5], Seunghak LEE[5]
[1]Korea University, [2]Bulgarian Academy of Sciences, [3]Argonne National Laboratory, [4]University of Leeds, [5]Korea Institute of Science and Technology

BG09-D1-AM1-300-007 | BG09-A011 (Invited)

Marriage of X-ray Spectroscopy and Microscopy for Trace Element Analysis in Biological and Environmental Systems
Bhoopesh MISHRA[1#+]
[1]University of Leeds

AS03 / Monsoon Climates Over South, East and Southeast Asia in a Warming Environment

Mon - 29 Jul | MR309

Time 08:30-10:30
Chair(s) Ramesh KRIPALANI, *Indian Institute of Tropical Meteorology*

AS03-D1-AM1-309-001 | AS03-A029

Formation of the North-South Contrasting Pattern of Summer Rainfall Changes over Eastern China
Renguang WU[1#+]
[1]Zhejiang University

AS03-D1-AM1-309-002 | AS03-A031

Re-examination of the Decadal Change in the Relationship Between the East Asian Summer Monsoon and Indian Ocean
Kyung-Ja HA[1#+], Seogyeong KIM[1], Jianping LI[2], Ruiqiang DING[3]
[1]Pusan National University, [2]Beijing Normal University, [3]Chinese Academy of Sciences

AS03-D1-AM1-309-003 | AS03-A005

Quantitative Analysis of Water Vapor Transport During Mei-yu Front Rainstorms Period over the Tibetan Plateau and Downstream Regions
Hao YANG[1#+]
[1]Wuhan Institute of Heavy Rain

AS03-D1-AM1-309-004 | AS03-A056

Delayed Impacts of the IOD: Seasonal Relationships Between the IOD, Tibetan Plateau Snow, and Summer Precipitation over the Yangtze-Huaihe River Region
Yue ZHANG[1#+], Wen ZHOU[1]
[1]City University of Hong Kong

AS03-D1-AM1-309-005 | AS03-A006

A Bias-corrected Projection for the Changes in East Asian Summer Monsoon Rainfall Under Global Warming
Shijie ZHOU[1+], Gang HUANG[1], Ping HUANG[1#]
[1]Chinese Academy of Sciences

AS03-D1-AM1-309-006 | AS03-A033

Projected Near Term Changes in the East Asia Summer Monsoon
Fangxing TIAN[1,2#+], Buwen DONG[2], Jon ROBSON[2], Rowan SUTTON[2], Simon TETT[3]
[1]National Centre for Atmospheric Science, [2]University of Reading, [3]The University of Edinburgh

AS03-D1-AM1-309-007 | AS03-A038

Dynamical Downscaling of Broad Scale Monsoon Rainfall
Yoshiyuki KAJIKAWA[1#+], Tsuyoshi YAMAURA[2]
[1]Kobe University, [2]RIKEN Advanced Institute for Computational Science

IG03 / Near Surface Investigation and Modeling for Groundwater Resources Assessment

Mon - 29 Jul | MR323

Time 08:30-10:30

Chair(s) Ping-Yu CHANG, *National Central University*
Jui-Pin TSAI, *National Cheng Kung University*

IG03-D1-AM1-323-001 | IG03-A006 (Invited)

Exploitation of Pump-and-treat Remediation Systems for Characterization of Hydraulic Heterogeneity
Yuanyuan ZHA[1#+], Tian-Chyi YEH[2], Jui-Pin TSAI[3]
[1]Wuhan University, [2]University of Arizona, [3]National Cheng Kung University

IG03-D1-AM1-323-002 | IG03-A008

Using Conditional Approach to Reduce the Uncertainty in Stochastic Subsidence Modeling
Shih-Jung WANG[1#+]
[1]National Central University

IG03-D1-AM1-323-003 | IG03-A003

Characterizing and Reproducing the Natural Pattern of CO2 Gas Concentration in the Vadose Zone Well Before CO2 Injecting in K-COSEM Research Site, Korea
Won-Tak JOUN[1+], Seung-Wook HA[1], Sanghoon LEE[1], In-Woo PARK[1], Kang-Kun LEE[1#]
[1]Seoul National University

IG03-D1-AM1-323-004 | IG03-A011

Using Time-lapse 2D Electrical Resistivity Imaging for Estimating the Specific Yield of the Unconfined Gravel Aquifers
Ping-Yu CHANG[1#+], Hsin-Ju YAO[1], Jordi Mahardika PUNTU[1]
[1]National Central University

IG03-D1-AM1-323-005 | IG03-A001

Evaluation Method for Hyporheic Zone Influenced by a Series of Rainfall Events
Suning LIU[1#+], Haiyun SHI[1]
[1]Southern University of Science and Technology

IG03-D1-AM1-323-006 | IG03-A012

A Comparative Assessment of Infiltration Characteristics Obtained Using Two Disc Infiltrometers
Aparimita Priyadarshini NAIK[1#+], Sreeja PEKKAT[1]
[1]Indian Institute of Technology Guwahati

IG03-D1-AM1-323-007 | IG03-A014

Estimating the Available Amount of Groundwater Resource Based on the Risk of Geological Disasters - Using Taipei Basin as an Example
Hua-Ting TSENG[1+], Hwa-Lung YU[1#]
[1]National Taiwan University

IG03-D1-AM1-323-008 | IG03-A015

Estimation of Regional Scale Effective Infiltration Using an Open Source Hydrogeological Balance Model and Free Open Data
Mauro ROSSI[1#+], Marco DONNINI[1]
[1]National Research Council (CNR)

PS03 / Exploration of Mars: New Results, Current Missions and Future Plans

Mon - 29 Jul | Nicoll 3

Time 08:30-10:30

Chair(s) Joseph MICHALSKI, *The University of Hong Kong*

PS03-D1-AM1-Nicoll 3-001 | PS03-A021

Martian Moon eXploration MMX: Science Objectives and Current Status
Shingo KAMEDA[1#+], Kiyoshi KURAMOTO[2], Yasuhiro KAWAKATU[3], Masaki FUJIMOTO[3], Jean-Pierre BIBRING[4], David LAWRENCE[5], Hidenori GENDA[6], Naru HIRATA[7], Takeshi IMAMURA[8], Koji MATSUMOTO[9], Hideaki MIYAMOTO[8], Tomokatsu MOROTA[10], Hiroshi NAGAOKA[3], Hiromu NAKAGAWA[11], Tomoki NAKAMURA[11], Kazunori OGAWA[12], Hisashi OTAKE[3], Masanobu OZAKI[3], Sho SASAKI[13], Hiroki SENSHU[14], Shogo TACHIBANA[8], Naoki TERADA[11], Tomohiro USUI[6], Koji WADA[14]
[1]Rikkyo University, [2]Hokkaido University, [3]Japan Aerospace Exploration Agency, [4]University of Paris-Sud, [5]Johns Hopkins University, [6]Tokyo Institute of Technology, [7]The University of Aizu, [8]The University of Tokyo, [9]National Astronomical Observatory of Japan, [10]Nagoya University, [11]Tohoku University, [12]Kobe University, [13]Osaka University, [14]Chiba Institute of Technology

PS03-D1-AM1-Nicoll 3-002 | PS03-A013

Future Plans for Measurements of Electromagnetic Radiation on the Surface of Mars
Ondrej SANTOLIK[1,2#+], Ivana KOLMASOVA[1,2], Alexandre A. SKALSKY[3]
[1]Czech Academy of Sciences, [2]Charles University, [3]Institute of Space Research

PS03-D1-AM1-Nicoll 3-003 | PS03-A018

Correlating Frequency of Ice Sheet Growth Recorded on Mons Pavonis and Mons Arsia, Mars
Tomohiro KANZAKI[1#+], Reid PARSONS[2], Ryodo HEMMI[1], Hideaki MIYAMOTO[1]
[1]The University of Tokyo, [2]Fitchburg State University

PS03-D1-AM1-Nicoll 3-004 | PS03-A001

Hydration State of the Martian Lithosphere Constrained from Gravity and Topography
James Daniel Paul MOORE[1#+], Jon WADE[2], Tony WATTS[2], Richard PALIN[3], Lars HANSEN[2], Brendan DYCK[4], Jun MUTO[5], Andrew SMYE[6], Adam SWITZER[1]
[1]Nanyang Technological University, [2]University of Oxford, [3]Colorado School of Mines, [4]Simon Fraser University, [5]Tohoku University, [6]Pennsylvania State University

PS03-D1-AM1-Nicoll 3-005 | PS03-A005

Insight Magnetic Field Measurements: Initial Results
Matthew FILLINGIM[1#+], Steven JOY[2], Chris RUSSELL[2], Yanan YU[2], Kathryn ROWE[2], Catherine JOHNSON[3], Anna MITTELHOLZ[3], Benoit LANGLAIS[4], Peter CHI[2], Janet LUHMANN[1], Jasper HALEKAS[5], Suzanne SMREKAR[6], Bruce BANERDT[6]
[1]University of California, Berkeley, [2]University of California, Los Angeles, [3]University of British Columbia, [4]University of Nantes, [5]The University of Iowa, [6]Jet Propulsion Laboratory

PS03-D1-AM1-Nicoll 3-006 | PS03-A022

An Ultraviolet Perspective of the Dynamic Atmosphere of Mars: Highlights from Four Years of Observations from the MAVEN Imaging UltraViolet Spectrograph
Daniel LO[1+], Nick SCHNEIDER[2#], Justin DEIGHAN[2], Sonal JAIN[2], Joseph EVANS[3], Michael STEVENS[4], Matteo CRISMANI[2], Michael CHAFFIN[2], Andrea HUGHES[5], John CLARKE[6], Majd MAYYASI[6], Ian STEWART[2], Roger YELLE[1], Franck MONTMESSIN[7], Franck LEFÈVRE[8], William MCCLINTOCK[2], Gregory HOLSCLAW[2], Bruce JAKOSKY[2]
[1]The University of Arizona, [2]University of Colorado Boulder, [3]Computational Physics, Inc., [4]Naval Research Laboratory, [5]Embry-Riddle Aeronautical University, [6]Boston University, [7]National Center for Scientific Research (CNRS)/ Institut Pierre Simon Laplace (IPSL)/ Université de Versailles Saint-Quentin-en-Yvelines (UVSQ) / University Pierre et Marie Curie (UPMC), [8]University Pierre et Marie Curie

PS03-D1-AM1-Nicoll 3-007 | PS03-A020

Automated Mapping and Tracking of Recurring Slope Lineaes at Valles Marineris
Yu TAO[1#+], Jan-Peter MULLER[1]
[1]University College London

AS34 / Aviation Weather Forecasting and Impact of Climate Change

Mon - 29 Jul | MR308

Time 11:00-12:30
Chair(s) Hye-Yeong CHUN, *Yonsei University*
Todd LANE, *The University of Melbourne*
Jung-Hoon KIM, *Seoul National University*

AS34-D1-AM2-308-001 | AS34-A009 (Invited)

Modelling the Climate Impact of Aircraft Contrails in a High-density Airspace with Uncertainty Analysis
Roger TEOH[1#+], Marc STETTLER[1]
[1]Imperial College London

AS34-D1-AM2-308-002 | AS34-A003

Time and Space Variations in Upper Level Turbulence Events from the Global Aircraft Data Set (GADS) Archive
Joel TENENBAUM[1#+]
[1]State University of New York at Purchase

AS34-D1-AM2-308-003 | AS34-A005

Impact of Large-scale Variabilities on Flight Routes and Clear-Air Turbulence (CAT) Encounters
Jung-Hoon KIM[1,2#+]
[1]Seoul National University, [2]NOAA National Centers for Environmental Prediction/ Colorado State University

AS34-D1-AM2-308-004 | AS34-A006

Analyses on Turbulence Indicator Obtained from the Aircraft Meteorological Data Relay (AMDAR) Data
Soo-Hyun KIM[1+], Hye-Yeong CHUN[1#], Jung-Hoon KIM[2,3], Robert SHARMAN[4], Matt STRAHAN[5]
[1]Yonsei University, [2]Seoul National University, [3]NOAA National Centers for Environmental Prediction/ Colorado State University, [4]National Center for Atmospheric Research, [5]NOAA/Aviation Weather Center

AS34-D1-AM2-308-005 | AS34-A008

Multi-model-based Deterministic and Probabilistic Clear-Air Turbulence (CAT) Forecasts Using Ellrod-Knox Index
Dan-Bi LEE[1+], Hye-Yeong CHUN[1#], Jung-Hoon KIM[2,3]
[1]Yonsei University, [2]Seoul National University, [3]NOAA National Centers for Environmental Prediction/ Colorado State University

AS34-D1-AM2-308-006 | AS34-A007

Characteristics of Atmospheric Turbulence Retrieved from High Vertical-resolution Radiosonde Data in the US and Comparison with Observed Aviation Turbulence
Han-Chang KO[1], Hye-Yeong CHUN[1#+], Robert SHARMAN[2]
[1]Yonsei University, [2]National Center for Atmospheric Research

AS22 / Middle Atmosphere Science

Mon - 29 Jul | Nicoll 2

Time 11:00-12:30
Chair(s) Zeyu CHEN, *Chinese Academy of Sciences*

AS22-D1-AM2-Nicoll 2-001 | AS22-A021 (Invited)

VHF Radar Measurements of Momentum Flux at High Latitudes
Iain REID[1,2#+], Ruediger RUESTER[3], Peter CZECHOWSKY[3], Andrew SPARGO[2]
[1]ATRAD Pty Ltd, [2]University of Adelaide, [3]Max Planck Institute for Solar System Research

AS22-D1-AM2-Nicoll 2-002 | AS22-A028 (Invited)

Latest Findings on Atomic Oxygen in the Mesopause Region
Martin KAUFMANN[1#+], Yajun ZHU[1], Qiuyu CHEN[1], Martin RIESE[1]
[1]Forschungszentrum Jülich GmbH

AS22-D1-AM2-Nicoll 2-003 | AS22-A032

Beijing MST Radar Detection of the Lower, Middle and Upper Atmosphere
Yufang TIAN[1,2#+], Daren LYU[1,2]
[1]Institute of Atmospheric Physics, Chinese Academy of Sciences, [2]University of Chinese Academy of Sciences

AS22-D1-AM2-Nicoll 2-004 | AS22-A013

Short Term Variability in Sun Synchronous and Non Sun Synchronous Tides in the Middle Atmosphere from FORMOSAT-3/COSMIC Data
Uma DAS[1#+], William WARD[2], Sanat Kumar DAS[3], Chen Jeih PAN[4]
[1]Indian Institute of Information Technology Kalyani, [2]University of New Brunswick, [3]Bose Institute, [4]National Central University

AS22-D1-AM2-Nicoll 2-005 | AS22-A027

The Northern Polar Vortex Affected by Particle Precipitation, QBO Phase and Sudden Stratospheric Warmings
Kalevi MURSULA[1#+], Timo ASIKAINEN[1], Ville MALINIEMI[1], Antti SALMINEN[1]
[1]University of Oulu

AS31 / Haze: Chemistry, Physics, Meteorology, Emissions, Climate, Processing, Fog, and More. Looking Across Spatial Scales from Regional to Global

Mon - 29 Jul | MR304

Time 11:00-12:30

Chair(s) Jason COHEN, *Sun Yat-sen University*

AS31-D1-AM2-304-001 | AS31-A009 (Invited)

Exploring Deep Learning Algorithms in Forecasting the Occurrence of Severe Haze Events in Southeast Asia

Chien WANG[1#+]

[1]*National Center for Scientific Research/ Université Toulouse III*

AS31-D1-AM2-304-002 | AS31-A004

Significance of Biogenic Volatile Organic Compounds and Biomass Burning Emissions to Global Aerosol Burden Under Future Changes in Climate and Land Use

Alan LIM[1#+], Amos TAI[1], Maria VAL MARTIN[2]

[1]*The Chinese University of Hong Kong,* [2]*Sheffield University*

AS31-D1-AM2-304-003 | AS31-A013 (Invited)

A Unique Perspective on the Temporal Shift of Boundary Layer Height Trend in China from Radiosonde Measurements

Jianping GUO[1#+]

[1]*Chinese Academy of Meteorological Sciences*

AS31-D1-AM2-304-004 | AS31-A012

Quantifying the Spatial and Temporal Vertical Distribution of Aerosols Due to Biomass Burning and Urbanization Using WRF-CHEM, A Plume Rise Model, and Remotely Sensed Measurements

SHUO WANG[1+], Jason COHEN[1#]

[1]*Sun Yat-sen University*

AS31-D1-AM2-304-005 | AS31-A017 (Invited)

Aerosol Assimilation and Prediction Experiment Based on Laser Radar Data in North China

Zengliang ZANG[1#+], Xiaobin PAN[1], Yanfei LIANG[1], Wei YOU[1]

[1]*National University of Defense Technology*

AS24 / Role of Urbanization on Weather and Climate of Cities

Mon - 29 Jul | MR303

Time 11:00-12:30

Chair(s) Hiroyuki KUSAKA, *University of Tsukuba*
Anurag DIPANKAR, *Meteorological Service Singapore*

AS24-D1-AM2-303-001 | AS24-A009

Wind Environment over Urban Areas – A Comparison of Laboratory and Mathematical Modeling Results

Chun-Ho LIU[1#+], Zhangquan WU[1], Yongfeng MA[1]

[1]*The University of Hong Kong*

AS24-D1-AM2-303-002 | AS24-A029

Numerical Simulation of Urban-boundary Layer with Explicitly Resolving Buildings Structures

Atsushi INAGAKI[1#+], Meral YUCEL[1], Manabu KANDA[1]

[1]*Tokyo Institute of Technology*

AS24-D1-AM2-303-003 | AS24-A031

Downscaling Studies Up to the Neighbourhood Scale with Obstacle Resolving Microscale Models

Bertrand CARISSIMO[1#+], Cedric FLAGEUL[1], Raphael BRESSON[1], Martin FERRAND[2]

[1]*CEREA-Ecole des Ponts ParisTech / EDF R&D,* [2]*EDF R&D*

AS24-D1-AM2-303-004 | AS24-A015

Simulation of Convective Precipitation over Singapore Using an Ensemble Approach

Andres SIMON-MORAL[1#+], Anurag DIPANKAR[2], Quang-Van DOAN[3], Claudio SANCHEZ[4], Matthias ROTH[1], Xiang-Yu HUANG[3]

[1]*National University of Singapore,* [2]*Meteorological Service Singapore,* [3]*Centre for Climate Research Singapore,* [4]*UK Met Office*

AS24-D1-AM2-303-005 | AS24-A014

Characterizing Effect of Land Cover Conversion on Thermal Environment and Convective Heavy Rainfall in Urban Areas

Jehn-Yih JUANG[1#+]

[1]*National Taiwan University*

AS24-D1-AM2-303-006 | AS24-A004

Appropriate Thermal Indices for Applications in Human Biometeorological and Urban Studies

Andreas MATZARAKIS[1#+]

[1]*German Meteorological Service*

HS02 / Hydrology for Human-nature Coupled Systems

Mon - 29 Jul | MR330

Time 11:00-12:30

Chair(s) Jian-Ping SUEN, *National Cheng Kung University*
Kyungrock PAIK, *Korea University*

HS02-D1-AM2-330-001 | HS02-A001 (Invited)

Sediment Balance from Mountains to Coasts in Japan: Huge Impact of Past River Mining

Keiko UDO[1#+], Yuriko TAKEDA[1], Yoshiyuki YOKOO[2]

[1]*Tohoku University,* [2]*Fukushima University*

HS02-D1-AM2-330-002 | HS02-A004

Model Linking Landslides and River Evolution of Incisional Channel Created by River Erosion

Chia-Ting KAO[1+], Gene Jiing-Yun YOU[1#]

[1]*National Taiwan University*

HS02-D1-AM2-330-003 | HS02-A009

Mangrove Competition in Different Land Reclamation Scenarios in a Semi-enclosed Subtropical Bay

Shuxin LUO[1], Ting Fong May CHUI[1#+]

[1]*The University of Hong Kong*

HS02-D1-AM2-330-004 | HS02-A006

Numerical Analysis of Submerged Turbulent Buoyant Jet in River Mouth

Yen-Chen MOU[1#+], Gene Jiing-Yun YOU[1], Chih-Chieh YOUNG[2]

[1]*National Taiwan University,* [2]*National Taiwan Ocean University*

HS02-D1-AM2-330-005 | HS02-A016

Changes in Fluid Regime in the Estuarine Turbidity Maxima of Yangtze River Analyzing by Texture Features in Satellite Remote Sensing Images
Lizhi TENG[1+], Heqin CHENG[1#], Ge YAN[1]
[1]East China Normal University

HS03 / Challenges in Hydrologic Modeling

Mon - 29 Jul | MR329

Time 11:00-12:30
Chair(s) Bellie SIVAKUMAR, *University of New South Wales*

HS03-D1-AM2-329-001 | HS03-A036 (Invited)

Wavelet Decomposition as a Data Pre-processing Technique in Artificial Neural Networks
A.W. JAYAWARDENA[1#+]
[1]The University of Hong Kong

HS03-D1-AM2-329-002 | HS03-A010

Watershed Modelling of the Buayan Basin in the Philippines Using the Soil Water Assessment Tool (SWAT) for Sustainable Water Resource Management
Ismail GUIAMEL[1+], Han Soo LEE[1#]
[1]Hiroshima University

HS03-D1-AM2-329-003 | HS03-A002

A Three-dimensional Hydrogeological Analysis Method for Estimating Tunnel Inflow
Wen Han TSAI[1#+], Fu Yuan HSIAO[1]
[1]Sinotech Engineering Consultants, Inc

HS03-D1-AM2-329-004 | HS03-A031

Comparison of Spatial Interpolation Methods for the Estimation of Precipitation Distribution at Different Time Scales to Improve the Accuracy of Hydrological Model
Dedi LIU[1#+]
[1]Wuhan University

HS03-D1-AM2-329-005 | HS03-A037

Improving Probabilistic Hydrologic Predictions Through High-resolution Convection-permitting Climate Modeling
Shuo WANG[1#+]
[1]The Hong Kong Polytechnic University

HS03-D1-AM2-329-006 | HS03-A027

Extraction of Soil Moisture Information from the Dynamic Budyko Model
Aruna Kumar NAYAK[1#+], Basudev BISWAL[2], K.P. SUDHEER[1]
[1]Indian Institute of Technology Madras, [2]Indian Institute of Technology Hyderabad

HS20 / Monthly to Seasonal Projection of Climatic/hydrological Extremes

Mon - 29 Jul | MR328

Time 11:00-12:30
Chair(s) Ji CHEN, *The University of Hong Kong*

HS20-D1-AM2-328-001 | HS20-A003

A Stochastic Programming Approach to Optimal Reservoir Operation Using Probabilistic Seasonal Streamflow Forecasts
Gulten GOKAYAZ[1#+], Stefano GALELLI[1], Selin Damla AHIPASAOGLU[1]
[1]Singapore University of Technology and Design

HS20-D1-AM2-328-002 | HS20-A004

Development of Rating-curve Considering the Influence of Tide Effect
Younghoon YOU[1+], Myungjin LEE[1], Jonghun LIM[1], Junhyeong LEE[1], Soojun KIM[1], Hung Soo KIM[1#]
[1]Inha University

HS20-D1-AM2-328-003 | HS20-A007

An Analysis of the Impacts of Seasonal Weather Forecast
Seon-Ho KIM[1+], Woo Sung NAM[2], Deg-Hyo BAE[1#]
[1]Sejong University, [2]National Drought Information Analysis Center

HS20-D1-AM2-328-004 | HS20-A005

Teleconnection Analysis Between Droughts in Korea and Global Climate Factors
Taewoo LEE[1+], Hong Jun JOO[1], Soojun KIM[1#], JongSo LEE[2], Jae Won JUNG[1], Hung Soo KIM[1]
[1]Inha University, [2]Korea Research Institute for Human Settlements

HS20-D1-AM2-328-005 | HS20-A002

Changes of Hydrologic Risk for Future Droughts in South Korea According to RCP Climate Change Scenarios
Jiyeon PARK[1+], Ji-Eun KIM[1], Jae Hee RYU[1], Jae-Hyun AHN[2], Tae-Woong KIM[1#]
[1]Hanyang University, [2]Seokyeong University

HS20-D1-AM2-328-006 | HS20-A008

Study on the Change of Precipitation Pattern in Southwest China Under Global Climate Change
Ji CHEN[1#+], Jiaye LI[1,2]
[1]The University of Hong Kong, [2]Tsinghua University

ST03 / Magnetosphere-ionosphere Coupling at Earth and Other Planets: Aurorae and the Magnetospheric/ionosphere Dynamics

Mon - 29 Jul | MR310

Time 11:00-12:30
Chair(s) Quanqi SHI, *Shandong University*

ST03-D1-AM2-310-001 | ST03-A015 (Invited)

Magnetospheric Convection in Association with Field-aligned Ion Flows and Currents in Earth's Ionosphere and Magnetosphere
Robert RANKIN[1#+], Dmytro SYDORENKO[1]
[1]University of Alberta

ST03-D1-AM2-310-002 | ST03-A019

Turbulence Observations in the Polar/Cusp Ionosphere
Francesca DI MARE[1#+], Jøran MOEN[1], Lasse CLAUSEN[1], Andres SPICHER[1]
[1]University of Oslo

ST03-D1-AM2-310-003 | ST03-A020

PARM-HEP Observation of Precipitating High Energy Electrons over Pulsating Aurora
Taku NAMEKAWA[1,2#+], Takefumi MITANI[2], Kazushi ASAMURA[2], Yoshifumi SAITO[2]
[1]The University of Tokyo, [2]Japan Aerospace Exploration Agency

ST03-D1-AM2-310-004 | ST03-A021 (Invited)

Direct Evidence for Throat Aurora Being the Ionospheric Signature of Magnetopause Transient and Reflecting Localized Magnetopause Indentations
Desheng HAN[1#+]
[1]Tongji University

ST04 / Particle Acceleration and Transport at the Sun and in the Heliosphere

Mon - 29 Jul | MR311

Time 11:00-12:30
Chair(s) Linghua WANG, *Peking University*
Kyoko WATANABE, *National Defense Academy of Japan*

ST04-D1-AM2-311-001 | ST04-A018

Cosmic-ray Anisotropy Observed with the Tibet AS+MD Array
Munehiro OHNISHI[1#+]
[1]The University of Tokyo

ST04-D1-AM2-311-002 | ST04-A021

Global Magnetohydrodynamics Simulation of EUV Waves and Shocks from the X8.2 Eruptive Flare on 2017 September 10
Meng JIN[1,2#+], Wei LIU[3,4], Mark CHEUNG[3], Nariaki NITTA[3], Ward MANCHESTER[5], Leon OFMAN[6,7], Cooper DOWNS[8], Vahe PETROSIAN[4], Nicola OMODEI[4]
[1]Lockheed Martin ATC, [2]SETI Institute, [3]Lockheed Martin Solar and Astrophysics Laboratory, [4]Stanford University, [5]University of Michigan, [6]Catholic University of America, [7]NASA Goddard Space Flight Center, [8]Predictive Science Inc.

ST04-D1-AM2-311-003 | ST04-A006 (Invited)

Comparative Study of Energetic Particle Acceleration in Solar Corona and Earth's Magnetosphere
Shinsuke IMADA[1#+]
[1]Nagoya University

ST04-D1-AM2-311-004 | ST04-A011

Suprathermal Electrons Near Earth Bow Shock
Zixuan LIU[1+], Linghua WANG[1#], Quanqi SHI[2], Mitsuo OKA[3], Jiansen HE[1], Hui TIAN[1], Bale STUART[3], Drew TURNER[4]
[1]Peking University, [2]Shandong University, [3]University of California, Berkeley, [4]The Aerospace Corporation

ST04-D1-AM2-311-005 | ST04-A020

Particle Acceleration in Coalescent and Squashed Magnetic Islands of Reconnecting Current Sheets
Valentina ZHARKOVA[1#+], Qian XIA[1]
[1]Northumbria University

SE11 / Geophysical Investigation and Structures of the Orogenic Belt and Numerical Modeling

Mon - 29 Jul | MR327

Time 11:00-12:30
Chair(s) Cong PENG, *CAGS*

SE11-D1-AM2-327-001 | SE11-A002

Crustal Structure Beneath the Southwestern Xing'an-Mongolia Orogenic Belt Revealed by Receiver Function Analysis
Qi-Fu CHEN[1#+], KaiWen ZHANG[1]
[1]Chinese Academy of Sciences

SE11-D1-AM2-327-002 | SE11-A004

Deep Structure, Paleo- and Modern Geodynamics of the Sikhote-Alin Orogenic Belt
Aleksei DIDENKO[1#+], Mikhail NOSYREV[1]
[1]Far Eastern Branch of the Russian Academy of Sciences

SE11-D1-AM2-327-003 | SE11-A005

High-resolution Crust Image from an Active-source Deep Seismic Reflection Profile Across the Kalatongke Orefield in the Northeastern Margin of the Junggar Basin, Northwest China: Implications to Regional Metallogenic Process
Lian-Feng ZHAO[1#+], Xiao-Bi XIE[2], Lei ZHANG[1], Geng YANG[1], Zhen-Xing YAO[1]
[1]Chinese Academy of Sciences, [2]University of California, Santa Cruz

SE11-D1-AM2-327-004 | SE11-A003

A Density Model of Crust and Upper Mantle in Tibet from the Joint Inversion of Gravity Data and Surface Wave Dispersion
Jiakuan WAN[1+], Zhicai LUO[1#], Chuang XU[1]
[1]Huazhong University of Science and Technology

SE11-D1-AM2-327-005 | SE11-A007

Mechanics and Paleo Structure of the Platform Margin of Dengying Formation in the Jiulongshan Field, Sichuan Basin, China
Lining WANG[1#+]
[1]PetroChina

SE11-D1-AM2-327-006 | SE11-A008

Geodynamic Modeling on the Continuous Process: From Oceanic Subduction to Continental Subduction
Rui QI[1#+]
[1]Sun Yat-sen University

SE02 / Earthquakes, Volcanoes, and Active Faults in East Asia

Mon - 29 Jul | MR302

Time 11:00-12:30
Chair(s) Xiwei XU, *China Earthquake Administration*
Yinshuang AI, *Chinese Academy of Sciences*
Jianshe LEI, *China Earthquake Administration*

SE02-D1-AM2-302-001 | SE02-A039

Seismic Azimuthal Anisotropy and Mantle Flow Beneath the Southeastern Tibetan Plateau and Indochina Peninsula
Kelly LIU[1#+], Fansheng KONG[2], Youqiang YU[3], Stephen GAO[1]
[1]Missouri University of Science and Technology, [2]Ministry of Natural Resources, [3]Tongji University

SE02-D1-AM2-302-002 | SE02-A004

Is There a Big Mantle Wedge Under Eastern Tibet?
Jianshe LEI[1#+], Dapeng ZHAO[2], Xiwei XU[1], Mofei DU[1]
[1]China Earthquake Administration, [2]Tohoku University

SE02-D1-AM2-302-003 | SE02-A005

Preliminary Analysis of Seismic Fault Zone Waves at the Longmenshan Central Fault Zone from Dense Arrays
Yafen HUANG[1#+], Hongyi LI[1], Yuting ZHANG[1], Min LIU[1]
[1]China University of Geosciences

SE02-D1-AM2-302-004 | SE02-A006

3D Shallow Shear-wave Velocity Structure from Ambient-noise Tomography and HVSR Beneath the Longmen-shan Fault
Yuting ZHANG[1#+], Hongyi LI[1], Yafen HUANG[1], Min LIU[1]
[1]China University of Geosciences

SE02-D1-AM2-302-005 | SE02-A021 (Invited)

Joint Inversion of Teleseismic, Strong Motion, and Geodetic Data for the Rupture Processes of the 2008 Wenchuan and 2015 Gorkha Earthquakes
Kazuki KOKETSU[1#+], Kazutoshi TAKANO[1], Hiroaki KOBAYASHI[2]
[1]The University of Tokyo, [2]Kobori Research Complex

SE02-D1-AM2-302-006 | SE02-A029

Seismic Versus Geodetic Moments in the Garhwal-Kumaun Himalaya: A Tool for a Rapid Understanding of Earthquake Potential
Yogendra SHARMA[1#+], Sumanta PASARI[1], Kuo-En CHING[2], Onkar DIKSHIT[3]
[1]BITS Pilani, [2]National Cheng Kung University, [3]Indian Institute of Technology Kanpur

OS11 / Ocean Circulation and Air-sea Interaction Over the Maritime Continent and Surrounding Waters

Mon - 29 Jul | MR301

Time 11:00-12:30
Chair(s) Lei ZHOU, *Shanghai Jiao Tong University*

OS11-D1-AM2-301-001 | OS11-A030 (Invited)

Critical Role of Maritime Continent Water Cycle on the Indonesian Throughflow
Lee TONG[1#+], Arnold L. GORDON[2], Janet SPRINTALL[3], Severine FOURNIER[1]
[1]Jet Propulsion Laboratory, California Institute of Technology, [2]Columbia University, [3]Scripps Institution of Oceanography

OS11-D1-AM2-301-002 | OS11-A002 (Invited)

The Fate of Freshwater in the Indonesian Seas
Shinichiro KIDA[1#+], Hideharu SASAKI[2], Kelvin RICHARDS[3]
[1]Kyushu University, [2]Japan Agency for Marine-Earth Science and Technology, [3]University of Hawaii at Manoa

OS11-D1-AM2-301-003 | OS11-A026 (Invited)

La Niña Modoki Enhanced Summer-fall Precipitation over the Maritime Continent
Iskhaq ISKANDAR[1#+], Deni Okta LESTARI[1]
[1]Sriwijaya University

OS11-D1-AM2-301-004 | OS11-A015

Vertical Profile of Indonesian Throughflow at Makassar Strait
Jun WEI[1#+], Mingting LI[2,3]
[1]Sun Yat-sen University, [2]Peking University, [3]Columbia University

OS11-D1-AM2-301-005 | OS11-A001

The Intermediate Water in the Philippines Sea
Nan ZANG[1#+]
[1]Chinese Academy of Sciences

OS11-D1-AM2-301-006 | OS11-A018

The Central Indian Ocean Mode Simulation and Prediction in the S2S Database
Jianhuang QIN[1#+], Lei ZHOU[1]
[1]Shanghai Jiao Tong University

OS18 / Coastal Hazards: Impacts of Tropical Storms and Tsunamis

Mon - 29 Jul | Nicoll 1

Time 11:00-12:30
Chair(s) Linlin LI, *National University of Singapore*

OS18-D1-AM2-Nicoll 1-001 | OS18-A053 (Invited)

Assessment of Impacts of Sunda Strait Tsunami 2018 on Coastal Area in Banten and Lampung of Indonesia
Syamsidik SYAMSIDIK[1#+], Benazir BENAZIR[1], Mumtaz LUTHFI[1]
[1]Universitas Syiah Kuala

OS18-D1-AM2-Nicoll 1-002 | OS18-A046

The Damage of a Stage House Caused by Sunda Strait Tsunami on 22 December 2018
Kuswandi KUSWANDI[1#+], Any NURHASANAH[2], Radianta TRIATMADJA[3], Naoimi YOBELITA[2], Ike. P. KESUMA[2], M. Archie ALVERINALDO[2], A. Andika WIBISONO[2], Wayan S. ARIMBAWA[2]
[1]Institut Teknologi Medan, [2]Universitas Bandar Lampung, [3]Universitas Gadjah Mada

OS18-D1-AM2-Nicoll 1-003 | OS18-A028

Field Observations of the 28 September 2018 Palu Tsunami
Adi PRASETYO[1#+], Leo ELIASTA[1], Ma'ruf HADI SUSANTO[1], Cahyo NUR RAHMAT NUGROHO[1], Hamzah LATIEF[2], Nobuhito MORI[3], Tomohiro YASUDA[4], Katsuchiro GODA[5], Daiki TSUJIO[6]
[1]Ministry of Public Works and Housing, [2]Institut Teknologi Bandung, [3]Kyoto University, [4]Kansai University, [5]Western University, [6]Pacific Consultants Co. Ltd

OS18-D1-AM2-Nicoll 1-004 | OS18-A045

Tsunami Deposits of the 2018 Palu Earthquake Reflect Low Power and Short-term Tsunami Inundation and Limited Availability of Nearshore Source Sediments
Adam SWITZER[1#+], Jedrzej MAJEWSKI[1], Rachel GUAN[1], Benazir BENAZIR[2], Ella MEILIANDA[3], Peter PARHAM[1], Jessica PILARCZYK[4], Hermann FRITZ[5], Robert WEISS[6], Benjamin HORTON[1,7]
[1]Nanyang Technological University, [2]Universitas Syiah Kuala, [3]Tsunami and Disaster Mitigation Research Center, [4]Simon Fraser University, [5]Georgia Institute of Technology, [6]Virginia Tech, [7]Rutgers University

OS18-D1-AM2-Nicoll 1-005 | OS18-A023 (Invited)

Was 2018 Sulawesi Tsunami a Double Event or Not?
Tso-Ren WU[1#+], Meng-Ju CHUNG[1], Tien-Chi LIU[1], Yu-Lin TSAI[1], Jun-Wei LIN[1], Mei-Hui CHUANG[1], Kuo-Fong MA[1], Shiann-Jong LEE[2]
[1]National Central University, [2]Academia Sinica

OS18-D1-AM2-Nicoll 1-006 | OS18-A057

Development of Coastal Inundation Early Warning System in Indonesia
Nelly Florida RIAMA[1#+], Riri Fitri SARI[2], Andri RAMDHANI[1], Bayu EDO[1]
[1]Meteorology, Climatology, and Geophysical Agency, [2]University of Indonesia

BG09 / Biogeochemistry of Contaminants in Terrestrial and Aquatic Ecosystems

Mon - 29 Jul | MR300

Time 11:00-12:30
Chair(s) Man Jae KWON, *Korea University*

BG09-D1-AM2-300-001 | BG09-A014

Mercury Transformations in Contaminated Soil at a Former Wood Preservation Site
Flora BROCZA[1#+], Harald BIESTER[2], Jan-Helge RICHARD[3], Bhoopesh MISHRA[1], Jan WIEDERHOLD[4]
[1]University of Leeds, [2]Technical University of Braunschweig, [3]Institute for Hygiene and Environment, [4]University of Vienna

BG09-D1-AM2-300-002 | BG09-A013

Organochlorines and Mercury in the Terrestrial Environment Around an Indian Research Station in Antarctica
Asif QURESHI[1#+], Subhavana KATAKAM[1], Anoop TIWARI[2], Paromita CHAKRABORTY[3]
[1]Indian Institute of Technology Hyderabad, [2]National Centre for Antarctic and Ocean Research, [3]SRM University

BG09-D1-AM2-300-003 | BG09-A007

Biogeochemical Characteristics of Antimony (Sb)-contaminated Soils from a Refinery and a Military Shooting Range
Soo-Chan PARK[1], Maxim BOYANOV[2], Kenneth KEMNER[3], Edward O'LOUGHLIN[3], Man Jae KWON[1#+]
[1]Korea University, [2]Bulgarian Academy of Sciences, [3]Argonne National Laboratory

BG09-D1-AM2-300-004 | BG09-A009

The Wharf Roach, a Novel Environmental Indicator of Polycyclic Aromatic Hydrocarbon Contamination in Coastal Areas
Masato HONDA[1+], Yuji OSHIMA[2#], Xuchun QIU[2], Seiichi UNO[3], Suzanne L. UNDAP[4], Yohei SHIMASAKI[2]
[1]Kanazawa University, [2]Kyushu University, [3]Kagoshima University, [4]Sam Ratulangi University

AS03 / Monsoon Climates Over South, East and Southeast Asia in a Warming Environment

Mon - 29 Jul | MR309

Time 11:00-12:30
Chair(s) Renguang WU, *Zhejiang University*
Jun MATSUMOTO, *Tokyo Metropolitan University / JAMSTEC*

AS03-D1-AM2-309-001 | AS03-A048 (Invited)

Aphrodite-2: Release of EOD Adjustment Product and its Usage for Improving Asian Monsoon Forecasts
Akiyo YATAGAI[1#+], Natsuko YASUTOMI[2], Mio MAEDA[1], Hitoshi HIROSE[3], Sunil KHADGARAI[4]
[1]Hirosaki University, [2]Kyoto University, [3]Chiba University, [4]National Atmospheric Research Laboratory (Ex)

AS03-D1-AM2-309-002 | AS03-A010

Why Northeast China Has a Cooling Trend Under the Global Warming Background?
Hui GAO[1#+], Ting DING[1]
[1]China Meteorological Administration

AS03-D1-AM2-309-003 | AS03-A041

Spatial-temporal Analysis of Changes in Temperature Extremes in the Non-monsoon Region of China from 1961 to 2016
Yuyang WANG[1+], Zhiyong DING[2], Yaoming MA[1#]
[1]Chinese Academy of Sciences, [2]Beijing Normal University

AS03-D1-AM2-309-004 | AS03-A023

Associated Large-scale Atmospheric Circulations and Water Vapor Transport with the Interannual Variation of Intense Snowfall in Northern China
Zunya WANG[1#+]
[1]China Meteorological Administration

AS03-D1-AM2-309-005 | AS03-A058

Changes in the Influence of the Western Pacific Subtropical High on Asian Summer Monsoon Rainfall in the Late 1990s
Yanyan HUANG[1#+]
[1]Nanjing University of Information Science & Technology

AS05 / Mesoscale Meteorology and High-impact Weather

Mon - 29 Jul | MR308

Time 13:30-15:30
Chair(s) Kevin CHEUNG, *Macquarie University*

AS05-D1-PM1-308-001 | AS05-A027

Convective Echoes Embedded in Widespread Stratiform Echoes Observed by Kobe PAWR in July 2018
Shinsuke SATOH[1#+], Tetsuya SANO[1], Hanado HIROSHI[1], Yasumitsu MAEJIMA[2], Shigenori OTSUKA[3], Takemasa MIYOSHI[3,4]
[1]National Institute of Information and Communications Technology, [2]RIKEN Advanced Institute for Computational Science, [3]RIKEN Center for Computational Science, [4]University of Maryland

AS05-D1-PM1-308-002 | AS05-A034

Preferred Environmental Conditions of Precipitation Systems Around Bangladesh Observed by Ground-based Radars
Fumie MURATA[1#+], Shuhei AZUMA[1], Toru TERAO[2], Quamrul HASSAN[3]
[1]Kochi University, [2]Kagawa University, [3]Bangladesh Meteorological Department

AS05-D1-PM1-308-003 | AS05-A033 (Invited)

Aeolus – First Doppler Wind Lidar in Space
Erland KALLEN[1#+]
[1]Centre for Climate Research Singapore

AS05-D1-PM1-308-004 | AS05-A010 (Invited)

Tsukuba Tornado with Fujita Scale 3 Reproduced by Super-computer 'K'
Hiromu SEKO[1#+], Wataru MASHIKO[1], Sho YOKOTA[1], Tetsurou TAMURA[2], Hiroshi NIINO[3]
[1]Japan Meteorological Agency, [2]Tokyo Institute of Technology, [3]The University of Tokyo

AS05-D1-PM1-308-005 | AS05-A030

Typhoon-induced Precipitations over Western Japan in Present and Future Climate
Sridhara NAYAK[1#+], Tetsuya TAKEMI[1]
[1]Kyoto University

AS05-D1-PM1-308-006 | AS05-A022

Meteorological Analysis of the 20th December 2018 Hailstorm over the Sydney Metropolitan Area
Kevin CHEUNG[1#+], Kellie COOK[1]
[1]Macquarie University

AS05-D1-PM1-308-007 | AS05-A003

Benchmark Rainfall Verification of Access-TC Operational Landfall Forecasts over China
Zifeng YU[1#+]
[1]China Meteorological Administration

AS22 / Middle Atmosphere Science

Mon - 29 Jul | Nicoll 2

Time 13:30-15:30
Chair(s) Shigeo YODEN, *Kyoto University*

AS22-D1-PM1-Nicoll 2-001 | AS22-A009 (Invited)

Understanding the Variation of Stratosphere–Troposphere Coupling During Stratospheric Northern Annular Mode Events from a Mass Circulation Perspective
Rongcai REN[1#+], Yueyue YU[2]
[1]Chinese Academy of Sciences, [2]Nanjing University of Information Science & Technology

AS22-D1-PM1-Nicoll 2-002 | AS22-A020

Estimation of QBO Forcing by the Equatorial Waves Using Satellite Observations and High Resolution Radiosoundings
Zeyu CHEN[1#+]
[1]Chinese Academy of Sciences

AS22-D1-PM1-Nicoll 2-003 | AS22-A005 (Invited)

Satellite Observations and Modeling of Stratospheric Gravity Waves Associated with the Intensification of Tropical Cyclones
Lars HOFFMANN[1#+], Xue WU[2], M Joan ALEXANDER[3]
[1]Forschungszentrum Juelich GmbH, [2]Chinese Academy of Sciences, [3]NorthWest Research Associates

AS22-D1-PM1-Nicoll 2-004 | AS22-A010 (Invited)

Dynamic Initialization for Whole Atmosphere Modeling and Real-case Simulations for Gravity Waves Excited from Balanced Flows
In-Sun SONG[1#+]
[1]Korea Polar Research Institute

AS22-D1-PM1-Nicoll 2-005 | AS22-A012

The Role of Gravity Waves in the Evolution of the Vortex-splitting Stratospheric Sudden Warming in January 2009
Hye-Yeong CHUN[1#+], Byeong-Gwon SONG[2], In-Sun SONG[2]
[1]Yonsei University, [2]Korea Polar Research Institute

AS22-D1-PM1-Nicoll 2-006 | AS22-A033

Disentangling the Drivers of Interannual Variability in Trace Gases in the Upper Troposphere / Lower Stratosphere Using the Community Earth System Model and 15 Years of Measurements from the Aura Microwave Limb Sounder
Jessica NEU[1#+], Michelle SANTEE[1], Douglas KINNISON[2]
[1]Jet Propulsion Laboratory, California Institute of Technology, [2]National Center for Atmospheric Research

AS22-D1-PM1-Nicoll 2-007 | AS22-A036

Recent Lower Stratospheric Ozone Trends in Satellite Data and Specified Dynamics Model Simulations
Sean DAVIS[1#+]
[1]NOAA Earth System Research Laboratory

AS22-D1-PM1-Nicoll 2-008 | AS22-A002

The Stratospheric Changes Inferred from 10 Years of AIRS and AMSU-A Radiances
Fang PAN[1], Xianglei HUANG[1#+], Stephen LEROY[2], Pu LIN[3], Larrabee STROW[4], Yi MING[3], Venkatachalam RAMASWAMY[3]
[1]University of Michigan, [2]AER, Inc., [3]National Oceanic and Atmospheric Administration, [4]University of Maryland, Baltimore County

AS26 / Regional Climate Downscaling and Cordex: Challenges and Prospects

Mon - 29 Jul | MR304

Time 13:30-15:30
Chair(s) Dong-Hyun CHA, *Ulsan National Institute of Science and Technology*

AS26-D1-PM1-304-001 | AS26-A005 (Invited)

Future Changes of Thermal Comfort Conditions over China Based on Multi-RegCM4 Simulations
Xuejie GAO[1#+]
[1]Chinese Academy of Sciences

AS26-D1-PM1-304-002 | AS26-A020

The Effect of Nudging Parameters on Dynamical Downscaling over CORDEX East Asia Phase II Domain
Linyun YANG[1], Shuyu WANG[1#+], Jianping TANG[1], Xiaorui NIU[1]
[1]Nanjing University

AS26-D1-PM1-304-003 | AS26-A003

Evaluation of Current and Future Temperature Simulations of HadGEM3-RA According to Boundary Conditions
Tae Jun KIM[1#+], Seok-Woo SHIN[2], Jinuk KIM[2], Seon-Yong LEE[1], Jinwon KIM[3], Young-Hwa BYUN[2]
[1]National Institute of Meteorological Sciences, [2]Korea Meteorological Administration, [3]Chapman University

AS26-D1-PM1-304-004 | AS26-A013

Systematic Biases of Regional Climate Simulations Using the HadGEM3-RA in the CORDEX-East Asia 2 Experiment
Jinuk KIM[1#+], Seok-Woo SHIN[1], Tae Jun KIM[2], Seon-Yong LEE[2], Jinwon KIM[2], Young-Hwa BYUN[1]
[1]Korea Meteorological Administration, [2]National Institute of Meteorological Sciences

AS26-D1-PM1-304-005 | AS26-A012

Effect of Bias Correction Methods on the Reduction of Precipitation Uncertainties Simulated by Multi-RCMs
Gayoung KIM[1], Dong-Hyun CHA[1#+], Gil LEE[1], Changyong PARK[1]
[1]Ulsan National Institute of Science and Technology

AS26-D1-PM1-304-006 | AS26-A006

Future Changes of Homogeneous Precipitation Zone Using Bias-corrected Multi-RCMs over East Asia
Changyong PARK[1#+], Dong-Hyun CHA[1], Gil LEE[1], Gayoung KIM[1]
[1]Ulsan National Institute of Science and Technology

AS26-D1-PM1-304-007 | AS26-A011

Asian Summer Monsoon Changes Under Paris Agreement Target Temperatures: Transient vs. Equilibrium Conditions
Donghyun LEE[1#+], Seung-Ki MIN[1]
[1]Pohang University of Science and Technology

AS26-D1-PM1-304-008 | AS26-A010

Changes of the Convective Rain Ratio over Northeast Asia in Future Climate Scenario Projections
Dong Hyun JANG[1#+], Eun-Chul CHANG[1]
[1]Kongju National University

AS26-D1-PM1-304-009 | AS26-A016

Regional Climate of East Asia in the Atmospheric Ocean Coupled Model
Ui-Yong BYUN[1#+], Eun-Chul CHANG[1]
[1]Kongju National University

AS01 / Aerosol and Cloud Observations from Geostationary Platforms - Breaking the Temporal Barriers

Mon - 29 Jul | MR303

Time 13:30-15:30

Chair(s) Robert LEVY, *NASA Goddard Space Flight Center*
Pawan GUPTA, *Universities Space Research Association*

AS01-D1-PM1-303-001 | AS01-A008

Retrieval of Atmospheric Aerosol Properties for Geostationary and Polar-orbital Satellite Imaging Sensors
Mayumi YOSHIDA[1#+], Maki KIKUCHI[1], Takashi M. NAGAO[1], Hiroshi MURAKAMI[1], Keiya YUMIMOTO[2]
[1]Japan Aerospace Exploration Agency, [2]Kyushu University

AS01-D1-PM1-303-002 | AS01-A018

Retrieval of Aerosol Properties and Applications in Air Quality Monitoring from Geostationary Orbit Using AHI and GOCI
Jhoon KIM[1#+], Hyunkwang LIM[1], Seoyoung LEE[1], Sujung GO[1], Myungje CHOI[2]
[1]Yonsei University, [2]Jet Propulsion Laboratory, California Institute of Technology

AS01-D1-PM1-303-003 | AS01-A019

Integrating Aerosols Observations from LEO and GEO: Capturing Global Diurnal Cycle
Pawan GUPTA[1,2#+], Robert LEVY[2], Shana MATTOO[3], Lorraine REMER[4,5]
[1]Universities Space Research Association, [2]NASA Goddard Space Flight Center, [3]Science Systems and Applications, Inc./ NASA Goddard Space Flight Center, [4]University of Maryland, Baltimore County, [5]Airphoton LLC

AS01-D1-PM1-303-004 | AS01-A011 (Invited)

Adapting MAIAC Algorithm for Geostationary Satellite Data Processing
Alexei LYAPUSTIN[1#+]
[1]NASA Goddard Space Flight Center

AS01-D1-PM1-303-005 | AS01-A016

The Potential of Deep Convective Cloud as a Calibration Target for Geostationary Environment Monitoring Spectrometer (GEMS)
Yeeun LEE[1#+], Myoung-Hwan AHN[1], Mina KANG[1]
[1]Ewha Womans University

AS01-D1-PM1-303-006 | AS01-A007

Retrieving Aerosol Height over Land via the O2A & B Bands from EPIC
Jun WANG[1#+], Xiaoguang XU[2]
[1]The University of Iowa, [2]University of Maryland, Baltimore County

AS01-D1-PM1-303-007 | AS01-A023

COMS/GOCI Marine Fog Detection Algorithm Combined with Himawari-8/AHI
Donghee KIM[1#+], Myung-Sook PARK[1], Young-Je PARK[1], Wonkook KIM[1]
[1]Korea Institute of Ocean Science and Technology

AS01-D1-PM1-303-008 | AS01-A024

Cloud Optical Depth from Geostationary and Low Earth Orbit Satellites Evaluated During an Intensive Campaign
Alessandro DAMIANI[1#+], Hitoshi IRIE[1], Takashi HORIO[1], Tamio TAKAMURA[1], Rei KUDO[2], Pradeep KHATRI[3], Hironobu IWABUCHI[3], Ryosuke MASUDA[3], Takashi M. NAGAO[4]
[1]Chiba University, [2]Japan Meteorological Agency, [3]Tohoku University, [4]Japan Aerospace Exploration Agency

HS05 / Hydrological Processes in Agricultural Lands

Mon - 29 Jul | MR330

Time 13:30-15:30
Chair(s) Jun NIU, *China Agricultural University*
Yiping WU, *Xi'an Jiaotong University*

HS05-D1-PM1-330-001 | HS05-A001

Tracking the Dynamics of Distribution and Phenology of Winter Wheat-summer Maize Cropping System in the North China Plain During 2001-2018
Huimin LEI[1#+], Jiadi LI[1]
[1]Tsinghua University

HS05-D1-PM1-330-002 | HS05-A005

AHC: An Integrated Numerical Model for Simulating Agroecosystem Processes-model Description and Application
Xu XU[1#+], Chen SUN[2], Fengtian NENG[1], Jing FU[1], Guanhua HUANG[1]
[1]China Agricultural University, [2]Institute of Environment and Sustainable Development in Agriculture, Chinese Academy of Agricultural Sciences

HS05-D1-PM1-330-003 | HS05-A007

Assessing the Hydrologic and Water Quality Impacts Using SWAT and APEX-paddy Integrated Model in Paddy-dominant Agricultural Watershed
Donghyun KIM[1+], Taeil JANG[1#]
[1]Chonbuk National University

HS05-D1-PM1-330-004 | HS05-A011

Hydro-biogeochemical Impacts of Future Climate Change in a Typical Loess Hilly-gully Watershed on the Loess Plateau, China
Fubo ZHAO[1#+], Yiping WU[1]
[1]Xi'an Jiaotong University

HS05-D1-PM1-330-005 | HS05-A009

Estimation of Water Supply in Agricultural Reservoirs Using Empirical Formula
Hansol KANG[1#+], Hyunuk AN[1], Yeonsu KIM[2]
[1]Chungnam National University, [2]K-water Research Institute

HS05-D1-PM1-330-006 | HS05-A002

Development of a Distributed Agricultural Drought Prediction Model
Yuqing SUN[1+], Jun NIU[1#]
[1]China Agricultural University

HS05-D1-PM1-330-007 | HS05-A004

A VIC-based Cooling Effects Study for Agricultural Lands in Northwest China
Jun NIU[1#+], Shaozhong KANG[1]
[1]China Agricultural University

HS03 / Challenges in Hydrologic Modeling

Mon - 29 Jul | MR329

Time 13:30-15:30
Chair(s) Bellie SIVAKUMAR, *University of New South Wales*

HS03-D1-PM1-329-001 | HS03-A023

Lasso as an Exploratory Tool in Hydroclimatic Forecasting: Case Study of Waitaki River Catchment, New Zealand
Varvara VETROVA[1#+], Earl BARDSLEY[2]
[1]University of Canterbury, [2]The University of Waikato

HS03-D1-PM1-329-002 | HS03-A007 (Invited)

An Efficient Approach to Parametric Uncertainty Quantification of a Continental-scale Land Surface Model Based on a Spatial Sampling Strategy
Qingyun DUAN[1,2#+], Xueli HUO[2], Wei GONG[2]
[1]Hohai University, [2]Beijing Normal University

HS03-D1-PM1-329-003 | HS03-A016

Integrated Study of Freshwater Discharges from the Pearl River Basin to Estuary Based on Outlet Diversion Ratios
Xiao FENG[1#+], Ji CHEN[1], Zhongming LU[2]
[1]The University of Hong Kong, [2]Guangzhou HKUST Fok Ying Tung Research Institute

HS03-D1-PM1-329-004 | HS03-A028

Deriving Flow Scenarios for a Tributary from a Large Watershed Model in SWAT
Pulendra DUTTA[1#], Gilbert HINGE[1+], Arup Kumar SARMA[1]
[1]Indian Institute of Technology Guwahati

HS03-D1-PM1-329-005 | HS03-A018 (Invited)

Changes in Surface Soil Moisture and Water Availability Simulated by Various Models: Consistency and Discrepancy
Jianfeng LI[1#+], Yongqin David CHEN[2,3], Xihui GU[4]
[1]Hong Kong Baptist University, [2]The Chinese University of Hong Kong, Shenzhen, [3]The Chinese University of Hong Kong, [4]China University of Geosciences

HS03-D1-PM1-329-006 | HS03-A022

An Interactive Multi-objective Calibration Toolbox for Computationally Expensive SWAT Models
Christine SHOEMAKER[1], Taimoor AKHTAR[1#+]
[1]National University of Singapore

HS03-D1-PM1-329-007 | HS03-A030

High Resolution Atmospheric Forcing Data and Seasonal Calibration Scheme Improve Large Scale Streamflow Simulation Across China
Jiaojiao GOU[1+], Chiyuan MIAO[1#], Qingyun DUAN[1,2], Haiyan ZHENG[1]
[1]Beijing Normal University, [2]Hohai University

HS03-D1-PM1-329-008 | HS03-A026

An Information Entropy Perspective on Solute Transport (Water Quality) System in Rivers
Jiping JIANG[1#], Tianrui PANG[2+], Song WEI[1], Yi ZHENG[1], Peng WANG[2]
[1]Southern University of Science and Technology, [2]Harbin Institute of Technology

HS21 / Hydrometeorological Analysis of Natural Hazards

Mon - 29 Jul | MR328

Time 13:30-15:30

Chair(s) Ji CHEN, *The University of Hong Kong*
Soojun KIM, *Inha University*

HS21-D1-PM1-328-001 | HS21-A011

Impact of Climatic Shift and Dispersion on Analyzing the Climate Change with Crisp Seasonal Boundaries
Amrutha SURESH[1#+], Sreeja PEKKAT[1]
[1]Indian Institute of Technology Guwahati

HS21-D1-PM1-328-002 | HS21-A003

Disaster Risk Assessment Using Bayesian Network-based Weights
Ji-Eun KIM[1+], Ji Yeon PARK[1], Joo Heon LEE[2], Tae-Woong KIM[1#]
[1]Hanyang University, [2]Joongbu University

HS21-D1-PM1-328-003 | HS21-A005

Dryness Evaluation of a Mountain Wetland Using Drought Index
Jonghun LIM[1+], Jungwook KIM[1], Younghoon YOU[1], Taewoo LEE[1], JongSo LEE[2], Hung Soo KIM[1#]
[1]Inha University, [2]Korea Research Institute for Human Settlements

HS21-D1-PM1-328-004 | HS21-A009

Fuel for Wildfires in California During 2001-2017
Linghua QIU[1#+], Ji CHEN[1], Haiyun SHI[2], Liqun SUN[3], Jun NIU[4]
[1]The University of Hong Kong, [2]Southern University of Science and Technology, [3]Chinese Academy of Sciences, [4]China Agricultural University

HS21-D1-PM1-328-005 | HS21-A012

Numerical Simulation of Baeksan Flood Event Using HEC-RAS 1D-2D Coupling Model
Lea DASALLAS[1,2#+], Hyunuk AN[1], Yeonsu KIM[3]
[1]Chungnam National University, [2]University of the Philippines Resilience Institute, [3]K-water Research Institute

HS21-D1-PM1-328-006 | HS21-A007

Development of Loss Functions for the Road Facilities Based on Drainage Basin
Sang Ho KIM[1#], Shinbum HWANG[1+], Junhyuk SIM[1], Chang Hee LEE[2]
[1]Sangji University, [2]Jungwon University

HS21-D1-PM1-328-007 | HS21-A008

Quantitative Analysis of Heavy Rain Damage Reduction by Recovery Cost Investment
Junhyeong LEE[1+], Changhyun CHOI[1], Jongsung KIM[1], Donghyun KIM[2], JongSo LEE[3], Hung Soo KIM[1#]
[1]Inha University, [2]Center for Hydrology and Ecology, [3]Korea Research Institute for Human Settlements

ST31 / Dynamical Processes in the High-latitude Ionosphere and Magnetosphere-ionosphere Coupling

Mon - 29 Jul | MR310

Time 13:30-15:30

Chair(s) Qing-He ZHANG, *Shandong University*
Jing LIU, *National Center for Atmospheric Research*

ST31-D1-PM1-310-001 | ST31-A014 (Invited)

Investigation of F-region Irregularities by Grand Challenge Initiative Cusp Sounding Rockets
Joran MOEN[1#+], Andres SPICHER[1], Douglas ROWLAND[2], Craig KLETZING[3], Jim LABELLE[4]
[1]University of Oslo, [2]NASA Goddard Space Flight Center, [3]The University of Iowa, [4]Dartmouth College

ST31-D1-PM1-310-002 | ST31-A003 (Invited)

Introduction to the Wide-field Auroral Imager (WAI) Onboard the Chinese Fengyun Satellite
Xiao-Xin ZHANG[1#+], Fei HE[2], Bo CHEN[2], Jia-Wei LI[3], Chao YU[3]
[1]National Center for Space Weather, China Meteorological Administration, [2]Chinese Academy of Sciences, [3]China Meteorological Administration

ST31-D1-PM1-310-003 | ST31-A009

Observations and Validation of the Wide-field Aurora Imager Onboard Fengyun Satellite
Jia-Wei LI[1#+], Guang-xing DING[2], Xiao-Xin ZHANG[3], Fei HE[2], Chao YU[1], Bo CHEN[2]
[1]China Meteorological Administration, [2]Chinese Academy of Sciences, [3]National Center for Space Weather, China Meteorological Administration

ST31-D1-PM1-310-004 | ST31-A007 (Invited)

Polar Cap Patch Formation Detected by SuperDARN and Resolute Bay Incoherent Scatter Radars
Toshi NISHIMURA[1#], Boyi WANG[1+], Qing-He ZHANG[2]
[1]Boston University, [2]Shandong University

ST31-D1-PM1-310-005 | ST31-A001 (Invited)

Polar Cap Scintillation Producing Irregularities Associated with Patches and Auroral Forms
P. T. JAYACHANDRAN[1#+]
[1]University of New Brunswick

ST31-D1-PM1-310-006 | ST31-A005

Formation and Evolution of Polar Cap Ionospheric Patches and Their Associated Upflows and Scintillations: A Review
Qing-He ZHANG[1#+], Zanyang XING[1], Yong WANG[1], Yu-Zhang MA[1]
[1]Shandong University

ST31-D1-PM1-310-007 | ST31-A002 (Invited)

The Dynamic Variations of Subauroral Polarization Streams (SAPS) with Solar Wind Driving Conditions
Wenbin WANG[1#+], Dong LIN[2], Jing LIU[1], Alan G. BURNS[1]
[1]National Center for Atmospheric Research, [2]Virginia Tech

ST31-D1-PM1-310-008 | ST31-A010

Stormtime Modeling of the Ionosphere/Thermosphere/Plasmasphere System with SAMI3/GITM/RCM

Joseph HUBA[1#+], Jon KRALL[2], Aaron RIDLEY[3], Stanislaus SAZYKIN[4]

[1]Syntek Technologies, [2]Naval Research Laboratory, [3]University of Michigan, [4]Rice Universiity

ST04 / Particle Acceleration and Transport at the Sun and in the Heliosphere

Mon - 29 Jul | MR311

Time 13:30-15:30

Chair(s) Linghua WANG, *Peking University*

ST04-D1-PM1-311-001 | ST04-A017

The Acceleration of Energetic Particles at Coronal Shocks and Emergence of a Double Power Law Feature in Particle Energy Spectra

Xiangliang KONG[1#+], Fan GUO[2], Yao CHEN[1], Joseph GIACALONE[3]

[1]Shandong University, [2]Los Alamos National Laboratory, [3]The University of Arizona

ST04-D1-PM1-311-002 | ST04-A004

Sunward Transport of High-energy Protons from Interplanetary Shocks Inferred from Sustained Gamma-ray Emission from the Sun

Nat GOPALSWAMY[1#+], Pertti MAKELA[2], Seiji YASHIRO[2], Alejandro LARA[3], Hong XIE[4], Sachiko AKIYAMA[1,2]

[1]NASA Goddard Space Flight Center, [2]The Catholic University of America, [3]National Autonomous University of Mexico, [4]National Aeronautics and Space Administration

ST04-D1-PM1-311-003 | ST04-A005

Using Modeling to Infer Shock Sources of Heavy Ions in Sep Events

Janet LUHMANN[1#+], Y. LI[1], M. Leila MAYS[2], Dusan ODSTRCIL[3], Christina COHEN[4]

[1]University of California, Berkeley, [2]Catholic University of America, [3]George Mason University, [4]California Institute of Technology

ST04-D1-PM1-311-004 | ST04-A013 (Invited)

Integrated Science Investigation of the Sun (ISΘIS): Overview and Initial Results

Ralph MCNUTT[1#+], David MCCOMAS[2], Eric CHRISTIAN[3], Mark WIEDENBECK[4], Nathan SCHWADRON[5]

[1]Johns Hopkins Applied Physics Laboratory, [2]Princeton University, [3]NASA Goddard Space Flight Center, [4]Jet Propulsion Laboratory, California Institute of Technology, [5]University of New Hampshire

ST04-D1-PM1-311-005 | ST04-A003 (Invited)

Advances in Sep Understanding with the Parker Solar Probe

Mihir DESAI[1#+]

[1]Southwest Research Institute

ST04-D1-PM1-311-006 | ST04-A019

The Origin of Electrons in Solar Energetic Particle Events in Relation to Protons

Nariaki NITTA[1#+], Linghua WANG[2], Raul GOMEZ-HERRERO[3]

[1]Lockheed Martin Solar and Astrophysics Laboratory, [2]Peking University, [3]University of Alcala

ST04-D1-PM1-311-007 | ST04-A007

Solar Energetic Electron Events with Associated Hard X-ray Flares

Wen WANG[1#+], Linghua WANG[1], Sam KRUCKER[2], Glenn MASON[3], Hui TIAN[1], Jiansen HE[1], Chuanyi TU[1], Stuart BALE[4]

[1]Peking University, [2]FHNW, [3]The Johns Hopkins University Applied Physics Laboratory, [4]University of California, Berkeley

ST04-D1-PM1-311-008 | ST04-A015 (Invited)

3He-rich Solar Energetic Particle Events in Solar Cycle 24

George HO[1#+]

[1]The Johns Hopkins University Applied Physics Laboratory

SE05 / Mountain Building Processes with Associated Geohazards and Resources: Integrated Observations and Models

Mon - 29 Jul | MR327

Time 13:30-15:30

Chair(s) Chih-Tung CHEN, *National Central University*
Kazuaki OKAMOTO, *Saitama University*

SE05-D1-PM1-327-001 | SE05-A003 (Invited)

Processes of Subduction Initiation Revealed by P-T Paths of Amp and BS Tectonic Blocks in Serpentinite Mélange, Northern Japan

Toru TAKESHITA[1#+], Ayumi S. OKAMOTO[1], Wonji SHIN[1], Mizuho ANDO[1], Yuto KIMURA[1]

[1]Hokkaido university

SE05-D1-PM1-327-002 | SE05-A005

Metamorphic Olivine After Dehydration Embrittlement in Serpentinite in the Sanbagawa High P/T Metamorphic Belt

Kazuaki OKAMOTO[1,2#+], Masaru TERABAYASHI[3]

[1]Saitama University, [2]Tokyo Gakugei University, [3]Kagawa University

SE05-D1-PM1-327-003 | SE05-A002

Absolute Age Determination of Seismic Faulting and Implications on Tectonic Evolution of the Underthrust Continental Margin in the Active Taiwan Mountain Belt

Chih-Tung CHEN[1#+], Ching-Hua LO[2], Chieh-Yu WU[2], Hao-Tsu CHU[3]

[1]National Central University, [2]National Taiwan University, [3]Central Geological Survey

SE05-D1-PM1-327-004 | SE05-A006

Parallelism Between the Maximum Exhumation Belt and the Moho Ramp Along the Eastern Tibetan Plateau Margin: Coincidence or Consequence?

Xi-Bin TAN[1#+]

[1]Institute of Geology, China Earthquake Administration

SE05-D1-PM1-327-005 | SE05-A012

Numerical Simulation of 3D Dynamic Growth and Extention of North-east Tibetan Plateau

Caibo HU[1#+]

[1]University of Chinese Academy of Sciences

SE05-D1-PM1-327-006 | SE05-A004

Thermal Evolutions Since the Middle-late Triassic and its Profound Influence on Hydrocarbon Accumulation, Sichuan Basin, China

Lining WANG[1#+]

[1]PetroChina

SE05-D1-PM1-327-007 | SE05-A001

Deformation Patterns in the Fansipan Mountain Range, the Highest Topography in Northern Vietnam
Thi-Hue DINH[1,2+], Yu-Chang CHAN[1#], Chung-Pai CHANG[2], Yi-Chun HSU[2]
[1]Academia Sinica, [2]National Central University

SE05-D1-PM1-327-008 | SE05-A010

Thermal-metamorphic Structure of the Slate Terrain in the Active Taiwan Mountain Belt: Inversion of Marginal Basins During Arc-continent Collision
Chih-Tung CHEN[1#+], Hao-Cheng SUN[1], Yu WU[1]
[1]National Central University

SE02 / Earthquakes, Volcanoes, and Active Faults in East Asia

Mon - 29 Jul | MR302

Time 13:30-15:30

Chair(s) Jianshe LEI, *China Earthquake Administration*
O P MISHRA, *Ministry of Earth Sciences*
Chuntao LIANG, *Chengdu University of Technology*

SE02-D1-PM1-302-001 | SE02-A034 (Invited)

Spatial Variation of Stress Field Associated with Volcano-hydrothermal Inflation at the Tatun Volcano Group, Northern Taiwan
Hsin-Chieh PU[1#+], Cheng-Horng LIN[2], Ya-Ju HSU[2]
[1]Central Weather Bureau, [2]Academia Sinica

SE02-D1-PM1-302-002 | SE02-A011

Seismic Crustal Structure Beneath Jeju Volcanic Island, South Korea
Hyunsun KANG[1+], Young-Hee KIM[1#], Junkee RHIE[1], Tae-Seob KANG[2]
[1]Seoul National University, [2]Pukyong National University

SE02-D1-PM1-302-003 | SE02-A037

A Dense Temporary Seismic Network Deployment Around Agung Volcano, Bali, Indonesia
Zulfakriza ZULFAKRIZA[1#+], David P. SAHARA[1], Andri D. NUGRAHA[1], Sri WIDIYANTORO[1], Nanang T PUSPITO[1], Awali PRIYONO[1], Devy Kamil SYAHBANA[2], Phil CUMMINS[3]
[1]Bandung Institute of Technology, [2]Center for Volcanology and Geological Hazard Mitigation, [3]Australian National University

SE02-D1-PM1-302-004 | SE02-A038

SO2 Emission of Mayon Volcano During 2018 Eruption
Deborah FERNANDEZ[1#+], Raul Ryan REBADULLA[1], Maria Concepcion BARAIRO[1], Eric Lino ARCONADO[1], Rose MACAGGA[1], Eduardo LAGUERTA[1], Mariton BORNAS[1], Renato SOLIDUM[1], Charlotte BARRINGTON[2], Fidel COSTA[2], Benoit TAISNE[2]
[1]Philippine Institute of Volcanology and Seismology, [2]Nanyang Technological University

SE02-D1-PM1-302-005 | SE02-A035 (Invited)

A Preliminary Analysis of the Seismic Crisis Prior to November 2017 Mt. Agung Explosive Eruption
David P. SAHARA[1#+], Ghilman A. FATIH[1], Andri D. NUGRAHA[1], Sri WIDIYANTORO[1], Jeremy PESICEK[2], Zulfakriza ZULFAKRIZA[1], I.G.B. Eddy SUCIPTA[1], M. Taufik GUNAWAN[3], Daryono DARYONO[3], Ridwan KUSNANDAR[3], Pepen SUPENDI[3], Devy Kamil SYAHBANA[4]
[1]Bandung Institute of Technology, [2]U.S. Geological Survey, [3]Meteorological, Climatological and Geophysical Agency (BMKG), [4]Center for Volcanology and Geological Hazard Mitigation

SE02-D1-PM1-302-006 | SE02-A032 (Invited)

Seismic Imaging for High-resolution Crust Structures with Dense Seismic Array and Passive Sources
Zhiwei LI[1#+], Feng BAO[2], Xuelei LI[2], Xin XIA[2], Wen TIAN[2], Kaiqi CHEN[2]
[1]Institute of Geodesy and Geophysics, Chinese Academy of Sciences, [2]Chinese Academy of Sciences

SE02-D1-PM1-302-007 | SE02-A033

Coulombanalysis: Program for Flexibly Calculating Coulomb Stress Changes on Receiver Faults with Any Orientation and Nonvertical Profiles with Any Trend
Jianjun WANG[1#+]
[1]Wuhan University

SE02-D1-PM1-302-008 | SE02-A030

Seismic Safety Analysis of Buried Pipeline Under the Thrust Fault Movement
Aiwen LIU[1#+]
[1]China Earthquake Administration

OS11 / Ocean Circulation and Air-sea Interaction Over the Maritime Continent and Surrounding Waters

Mon - 29 Jul | MR301

Time 13:30-15:30

Chair(s) Kunio YONEYAMA, *Japan Agency for Marine-Earth Science and Technology*
Wen ZHOU, *City University of Hong Kong*

OS11-D1-PM1-301-001 | OS11-A009 (Invited)

Ocean Response to Atmospheric Variability in the Maritime Continent and Eastern Indian Ocean Region
Kelvin RICHARDS[1#+], Yanli JIA[1], Wei-Ching HSU[1], Takanori HORII[2], Qoosaku MOTEKI[2], Satoru YOKOI[2]
[1]University of Hawaii at Manoa, [2]Japan Agency for Marine-Earth Science and Technology

OS11-D1-PM1-301-002 | OS11-A008 (Invited)

Role of the Ocean in the Barrier Effect of the Maritime Continent on MJO Propagation
Chidong ZHANG[1#+], Jian LING[2]
[1]National Oceanic and Atmospheric Administration, [2]Chinese Academy of Sciences

OS11-D1-PM1-301-003 | OS11-A017 (Invited)

Role of Oceanic Processes in MJO Detour Across the Maritime Continent
Raghu MURTUGUDDE[1#+], Lei ZHOU[2], Jianhuang QIN[2]
[1]University of Maryland, [2]Shanghai Jiao Tong University

OS11-D1-PM1-301-004 | OS11-A021

Preliminary Results of Study on a Relationship Between Convective Activity and Meso-scale SST Gradient Based on In-situ Measurements
Kunio YONEYAMA[1#+], Mikiko FUJITA[1], Qoosaku MOTEKI[1], Satoru YOKOI[1], Ryuichi SHIROOKA[1]
[1]Japan Agency for Marine-Earth Science and Technology

OS11-D1-PM1-301-005 | OS11-A019

Observed Intraseasonal Variability of the Upper-layer Temperature in the Eastern Banda Sea
Agus ATMADIPOERA[1#+]
[1]Bogor Agricultural University

OS11-D1-PM1-301-006 | OS11-A004

Effect of the Diurnal Cycle of Convection on Sea Surface Heat Flux Off the West Coast of Sumatra Island
Pei-Ming WU[1#+]
[1]Japan Agency for Marine-Earth Science and Technology

OS11-D1-PM1-301-007 | OS11-A014

Simulations of Diurnal Variability SST and Upper Ocean Structure in the ACCESS-S1 Model During the Suppressed Phase of MJO
Je-Yuan HSU[1#+], Ming FENG[1], Harry HENDON[2]
[1]Commonwealth Scientific and Industrial Research Organisation, [2]Bureau of Meteorology

OS18 / Coastal Hazards: Impacts of Tropical Storms and Tsunamis

Mon - 29 Jul | Nicoll 1

Time 13:30-15:30
Chair(s) Nobuhito MORI, *Kyoto University*

OS18-D1-PM1-Nicoll 1-001 | OS18-A011

Projection of Vulnerability Due to Total Sea Level Rise - A Case Study in Fiji
Audrius SABUNAS[1#+], Nobuhito MORI[1]
[1]Kyoto University

OS18-D1-PM1-Nicoll 1-002 | OS18-A037

Numerical Simulation of Tsunami Runup Considering Breakwater Damage by a High Precision Tsunami Runup Calculation Method Coupled with Structure Analysis
Syaoyue CHEN[1#+]
[1]Chuo University

OS18-D1-PM1-Nicoll 1-003 | OS18-A010

On the Interactions Between Water Waves and Mangrove Trees: Physical Modeling in Two Scales
Che-Wei CHANG[1#+], Nobuhito MORI[1], Naoki TSURUTA[2], Kojiro SUZUKI[2]
[1]Kyoto University, [2]Port and Airport Research Institute

OS18-D1-PM1-Nicoll 1-004 | OS18-A039

Consideration Regarding Tsunami Evacuation Sign Using Augmented Reality
Masato YAMAMOTO[1#+], Taro ARIKAWA[1]
[1]Chuo University

OS18-D1-PM1-Nicoll 1-005 | OS18-A038

Super Typhoon Maria (2018) over the East China Sea
Jie YANG[1#+], Linlin LI[1], Haijiang LIU[2], Tso-Ren WU[3], Benxia LI[4], Peitao WANG[4], Philip Li-Fan LIU[1]
[1]National University of Singapore, [2]Zhejiang University, [3]National Central University, [4]National Marine Environmental Forecasting Center

OS18-D1-PM1-Nicoll 1-006 | OS18-A021

Inundation Estimation in the Southern Coast of Thailand During the Tropical Storm Pabuk Event 2019
Kachapond CHETTANAWANIT[1#+], Watin THANATHANPHON[2], Narongrit LUANGDILOK[2], Piyamarn SISOMPHON[2]
[1]Hydro - Informatics Institute (Public Organization), [2]Hydro and Agro Informatics Institute

OS18-D1-PM1-Nicoll 1-007 | OS18-A022

Storm Surge Early Warning System in the Gulf of Thailand During the Tropical Storm Pabuk Event 2019
Kachapond CHETTANAWANIT[1#+], Watin THANATHANPHON[2], Narongrit LUANGDILOK[2], Piyamarn SISOMPHON[2]
[1]Hydro - Informatics Institute (Public Organization), [2]Hydro and Agro Informatics Institute

OS18-D1-PM1-Nicoll 1-008 | OS18-A034

Case Study of 2019 Tropical Storm Pabuk in the Gulf of Thailand and its Affection of Asymmetric Wind Fields to Storm Surge
Yu-Lin TSAI[1#+], Tso-Ren WU[1], Simon C. LIN[2], Veerachai TANPIPAT[3], Eric YEN[2], Chuan-Yao LIN[4]
[1]National Central University, [2]Academia Sinica Grid Computing, [3]Hydro and Agro Informatics Institute, [4]Academia Sinica

BG01 / Understanding Carbon and Nitrogen Cycling- from Land to the Sea

Mon - 29 Jul | MR300

Time 13:30-15:30
Chair(s) Punyasloke BHADURY, *Indian Institute of Science Education and Research Kolkata*
Ajcharaporn PIUMSOMBOON, *Chulalongkorn University*

BG01-D1-PM1-300-001 | BG01-A001 (Invited)

Wetland-Atmosphere Methane Exchange in Northeast China: A Comparison of Permafrost Peatland and Freshwater Wetland
Li SUN[1#+]
[1]Northeast Institute of Geography

BG01-D1-PM1-300-002 | BG01-A002

Spatial Heterogeneity of Organic Carbon Cycling in the Northern Yap Trench
Dong LI[1#+]
[1]Second Institute of Oceanography, Ministry of Natural Resources of the People's Republic of China

BG01-D1-PM1-300-003 | BG01-A004 (Invited)

Transport of Particulate Organic Matter in Kumaki River by Rain Event of Typhoon Talim
Seiya NAGAO[1#+], Ryuunosuke TAHARA[1], Shinya OCHIAI[1], Akkiko GOTO[1], Takashi HASEGAWA[1]
[1]Kanazawa University

BG01-D1-PM1-300-004 | BG01-A005

Impacts of Anthropogenic Inputs on Carbon Dynamics in the Pearl River Estuary

Yingxin YE[1#+], Bo LIANG[1], Jia-Tang HU[1], Shiyu LI[1]
[1]*Sun Yat-sen University*

BG01-D1-PM1-300-005 | BG01-A013 (Invited)

Background Characteristics of Atmospheric CO2 and the Potential Source Regions at Pearl River Delta (PRD), China

Boru MAI[1#+]
[1]*China Meteorological Administration*

BG01-D1-PM1-300-006 | BG01-A003

Origin and Transport of Carbon from Riverine Mangroves in the Panay Island (Philippines)

Raghab RAY[1#+], Atsushi WATANABE[2], Toshihiro MIYAJIMA[1], Iris ORIZAR[3], M.L SAN DIEGO-MCGLONE[3], Charissa FERERRA[3], Masaya YOSHIKAI[4], Kazuo NADAOKA[4]
[1]*The University of Tokyo,* [2]*The Sasakawa Peace Foundation,* [3]*University of the Philippines,* [4]*Tokyo Institute of Technology*

AS03 / Monsoon Climates Over South, East and Southeast Asia in a Warming Environment

Mon - 29 Jul | MR309

Time 13:30-15:30

Chair(s) Bakshi Hardeep VAID, *Nanjing University of Information Science & Technology*
Fei LIU, *Nanjing University of Information Science & Technology*
Thanh LE, *Sejong University*

AS03-D1-PM1-309-001 | AS03-A016 (Invited)

Increasing Autumn Heavy Rainfall Trend in South Central Vietnam and its Relationship with Local Sea Surface Temperature

Jun MATSUMOTO[1,2#+], Long TRINH-TUAN[3], Rakesh TEJA CONDURE[3], Tomoshige INOUE[3], Thanh NGO-DUC[4], Lyndon Mark OLAGUERA[3]
[1]*Tokyo Metropolitan University / JAMSTEC,* [2]*Japan Agency for Marine-Earth Science and Technology,* [3]*Tokyo Metropolitan University,* [4]*Vietnam National University*

AS03-D1-PM1-309-002 | AS03-A015 (Invited)

Understanding and Predicting the Seesaw Between the Somali and Maritime Continent Cross-equatorial Flows

Jing-Jia LUO[1#+], Chen LI[2], Shuanglin LI[3]
[1]*Nanjing University of Information Science & Technology,* [2]*Monash Univeristy,* [3]*China University of Geosciences*

AS03-D1-PM1-309-003 | AS03-A013

Growing Midlatitude Forcing on Early-summer South Asian High in the Mid-1990s

Chi-Hua WU[1#+], Pei-Chia TSAI[1], Nicolas FREYCHET[2]
[1]*Academia Sinica,* [2]*University of Edinburgh*

AS03-D1-PM1-309-004 | AS03-A046

Trends in Monsoon Precipitation over the Myanmar Coast

Xiao YAN[1#+], Yibin YAO[1]
[1]*Wuhan University*

AS03-D1-PM1-309-005 | AS03-A002

Ocean Salinity as a Precursor of Summer Rainfall over the East Asian Monsoon Region

Biao CHEN[1,2+], Huiling QIN[3], Guixing CHEN[3], Huijie XUE[1#]
[1]*Chinese Academy of Sciences,* [2]*University of Chinese Academy of Sciences,* [3]*Sun Yat-sen University*

AS03-D1-PM1-309-006 | AS03-A011

Cloud Vertical Structures Associated with Northward Advance of the East Asian Summer Monsoon

Yunying LI[1#+], Yun JIA[1], Wenjing ZHANG[1]
[1]*National University of Defense Technology*

AS03-D1-PM1-309-007 | AS03-A032

East Asia Monsoon Fronts and Associated Precipitation: Impact of Horizontal Model Resolution in the UK Met Office Unified Model

Amulya CHEVUTURI[1,2#+], Nicholas KLINGAMAN[2,3], Andrew TURNER[2,3], Kevin HODGES[2], Reinhard SCHIEMANN[2,3], Liang GUO[2,3], Julia CURIO[2]
[1]*National Centre for Atmospheric Science, University of Reading,* [2]*University of Reading,* [3]*National Centre for Atmospheric Science*

IG13 / General Session

Mon - 29 Jul | MR323

Time 13:30-15:30

Chair(s) Mylene G. CAYETANO, *University of the Philippines-Diliman Institute of Environmental Science and Meteorology*
Fiona WILLIAMSON, *Singapore Management University*

IG13-D1-PM1-323-001 | IG13-A007

Mesozoic-Cenozoic Evolution of the East Baghdad Lineament (Central Iraq) Based on Seismic Data: Insights for Basin Evolution of Mesopotamia

Hua BAI[1#+], Jianguo ZHANG[1], Hehua WANG[2], Shugen LIU[3]
[1]*China ZhenHua Oil Company,* [2]*Chengdu North Petroleum Exploration and Development Technology Company Limited,* [3]*Chengdu University of Technology*

IG13-D1-PM1-323-002 | IG13-A014

The Effect of Hydrogen Peroxide Method in the Preparation Sample of Ancient Very Fine Sandstone That Using and Not Using Sodium Hydroxide Granules on Foraminifera Morphology Appearance

Ria FITRIANY[1#+], Anisa Ulfatu HASANAH[1,2], Dayat WIHARYAT[1]
[1]*Padjadjaran University,* [2]*Institute of Technology Bandung*

IG13-D1-PM1-323-003 | IG13-A015

Miocene Calcareous Nannoplanktons of Volcanic Rock in Menganti, Karangbolong Area, Indonesia

Zulfiah ZULFIAH[1#+], Angga JATI WIDIATAMA[1], Lia FITRIA RAHMATILLAH[1], Wildan HAMZAH[1], Dina GUNARSIH[1], Mirzam ABDURRACHMAN[1], Rubiyanto KAPID[1]
[1]*Bandung Institute of Technology*

IG13-D1-PM1-323-004 | IG13-A019

An Experimental Investigation of the Source of Sediment at the Jiangsu Coastal Shelf, China
Xi LI[1], Su-Xiang ZHANG[2], Zhen-Chun JIANG[3], Yong-Yuan SUN[4], Zhen-Rong ZHU[5], Yun-Cheng WEN[5], Vincent H. CHU[6], Soon Keat TAN[7#+]
[1]Hohai University, [2]Nanjing University of Information Science & Technology, [3]China Navy, [4]Jiangsu Provincial Hydrology and Survey Bureau, [5]Nanjing Hydraulic Research Institute, [6]McGill University, [7]Nanyang Technological University

IG13-D1-PM1-323-005 | IG13-A012

Year-round Airborne Observation in Korea During 2018 by National Institute of Meteorological Sciences
Ji-Hyoung KIM[1#+], Chulkyu LEE[1], Sueng-Pil JUNG[1], Hyo Jin YANG[1], Hee Jong KO[1], Jong-Hwan YUN[1]
[1]National Institute of Meteorological Sciences

IG13-D1-PM1-323-006 | IG13-A026

Integration of Satellite Data and In Situ Measurements for Fitting the Aerosol Extinction Profile
Tang-Huang LIN[1#], Liu GIN-RONG[1], Chian-Yi LIU[1], Kuo-En CHANG[1]
[1]National Central University

PS03 / Exploration of Mars: New Results, Current Missions and Future Plans

Mon - 29 Jul | Nicoll 3

Time 13:30-15:30
Chair(s) Joseph MICHALSKI, *The University of Hong Kong*

PS03-D1-PM1-Nicoll 3-001 | PS03-A012

The Latest Mars Climate Database (MCD Version 6.0)
Ehouarn MILLOUR[1#+], Francois FORGET[2], Aymeric SPIGA[1], Margaux VALS[3], Vladimir ZAKHAROV[3], Luca MONTABONE[4]
[1]Sorbonne Universite, [2]University Pierre et Marie Curie, [3]Laboratoire de Meteorologie Dynamique, [4]Space Science Institute

PS03-D1-PM1-Nicoll 3-002 | PS03-A004 (Invited)

The CO2 Inventory on Mars
Bruce JAKOSKY[1#+]
[1]University of Colorado Boulder

PS03-D1-PM1-Nicoll 3-003 | PS03-A003

Large Localized Carbonate Exposures in Northeast Tyrrhena Terra, Mars, and Possible Formation Mechanisms
Yang LIU[1#+], Timothy GOUDGE[2], Mark SALVATORE[3]
[1]National Space Science Center, [2]The University of Texas at Austin, [3]Northern Arizona University

PS03-D1-PM1-Nicoll 3-004 | PS03-A008

The Geology and Astrobiology of Mclaughlin Crater, Mars
Joseph MICHALSKI[1#+]
[1]The University of Hong Kong

PS03-D1-PM1-Nicoll 3-005 | PS03-A015

Acidic, Anoxic to Oxic Weathering Processes for Thick Clays Profiles at the Mawth Vallis Region, Mars: Insights from its Spectral Comparison with Basaltic Weathering Profile at Hainan Island, China
Jiacheng LIU[1+], Joseph MICHALSKI[1#], Wei TAN[2], Hongping HE[2], Long XIAO[3], Binlong YE[1]
[1]The University of Hong Kong, [2]Chinese Academy of Sciences, [3]China University of Geosciences

PS03-D1-PM1-Nicoll 3-006 | PS03-A010

Analogous Basaltic Impactites and Alteration Products to Prepare for Mars Exploration
Shawn WRIGHT[1#+], Joseph MICHALSKI[1]
[1]The University of Hong Kong

AS1 Poster Presentations

Mon - 29 Jul, 18:30 - 21:00 | EXHIBITION HALL

AS01-D1-EVE-P-001 | AS01-A006

The Dark Target Aerosol Algorithm Applied to Himawari-8 Advanced Himawari Imager (AHI) and GOES16 and GOES17 Advanced Baseline Imager (ABI)
Shana MATTOO[1#+], Pawan GUPTA[2,3], Robert LEVY[3], Lorraine REMER[4,5]
[1]Science Systems and Applications, Inc./ NASA Goddard Space Flight Center, [2]Universities Space Research Association, [3]NASA Goddard Space Flight Center, [4]University of Maryland, Baltimore County, [5]Airphoton LLC

AS01-D1-EVE-P-002 | AS01-A009

Preliminary Study on Aerosol Type Classification and Radiative Forcing Characteristics in China
Lu ZHANG[1#+], Jing LI[1]
[1]Peking University

AS01-D1-EVE-P-003 | AS01-A010

Diurnal Variability of Total Cloud Cover Using Kalpana1 Satellite Dataset over Indian Summer Monsoon Region
Soumi DUTTA[1#+], Sagnik DEY[1]
[1]Indian Institute of Technology Delhi

AS01-D1-EVE-P-004 | AS01-A012

Developing an Integrated LEO-GEO Climatology of Aerosol Properties with the Dark Target Algorithm: A Status Report
Robert LEVY[1#+], Shana MATTOO[2], Pawan GUPTA[1,3], Lorraine REMER[4,5], Robert HOLZ[6], Jennifer WEI[7]
[1]NASA Goddard Space Flight Center, [2]Science Systems and Applications, Inc./ NASA Goddard Space Flight Center, [3]Universities Space Research Association, [4]University of Maryland, Baltimore County, [5]Airphoton LLC, [6]University of Wisconsin, [7]NASA Goddard Earth Sciences Data and Information Services Center

AS01-D1-EVE-P-005 | AS01-A013

Development of Fog Detection Algorithm at Daytime Using Himawari-8/AHI and Ground Data
Na-Young ROH[1+], Ha-Yeong YU[1], Ji-Hye HAN[1], Myoung-Seok SUH[1#]
[1]Kongju National University

AS01-D1-EVE-P-006 | AS01-A017

A Study on Synergistic Use of Meteorological Imager for Improving Aerosol Type Classification and Aerosol Retrieval Algorithm of GEMS
Sujung GO[1+], Jhoon KIM[1#], Mijin KIM[1], Sang Seo PARK[2], Hyunkwang LIM[1], Seoyoung LEE[1], Ja-Ho KOO[1]
[1]Yonsei University, [2]Seoul National University

AS01-D1-EVE-P-007 | AS01-A020

Development of Quality Control Method of Visibility Meter Data and Detailed Analysis of Fog Occurrence over South Korea
Yu-Joo OH[1+], Tae-Ho KANG[1], Myoung-Seok SUH[1#]
[1]Kongju National University

AS01-D1-EVE-P-008 | AS01-A022

Satellite Observations of Pollutants: Towards a Next Generation Global Observing System
Dejian FU[1#+], Jessica NEU[1], William JOHNSON[1], Daniel WILSON[1], Hui-Hsin HSIAO[2], Shanshan YU[1], Xiong LIU[3], Jun WANG[4], Jonathan JIANG[1], Thomas PONGETTI[1], Gerard VAN HARTEN[1], Timothy CRAWFORD[1], Myungje CHOI[1], Stanley SANDER[5], David DINER[1], Annmarie ELDERING[1], Russell CHIPMAN[6], Jason HYON[1], Greg OSTERMAN[1], Michael R. GUNSON[1]
[1]Jet Propulsion Laboratory, California Institute of Technology, [2]National Taiwan Normal University, [3]Harvard University, [4]The University of Iowa, [5]California Institute of Technology, [6]University of Arizona

AS01-D1-EVE-P-009 | AS01-A026

The Performance Characteristics of MODIs AOD Against AERONET AOD over Pune, India
Gajanan AHER[1#+], Amol KOLHE[2], Sandeep VARPE[3], Pawan GUPTA[4,5]
[1]Sanghvi Keshri College, [2]Nowrosjee Wadia College, [3]International Institute of Information Technology, [4]Universities Space Research Association, [5]NASA Goddard Space Flight Center

AS06-D1-EVE-P-010 | AS06-A006

Heating Characteristics over the Eastern Tibetan Plateau in Boreal Summer Based on Objective Analysis Data
Junjun LI[1+], Jinghua CHEN[1], Chunsong LU[1#], Xiaoqing WU[2]
[1]Nanjing University of Information Science & Technology, [2]Iowa State University

AS06-D1-EVE-P-016 | AS06-A023

Cloud Response to SST Change in the Western Tropical Pacific in COMS and MODIS Data
Yoon-Kyoung LEE[1+], Jiwon HWANG[1], Yong-Sang CHOI[1#]
[1]Ewha Womans University

AS06-D1-EVE-P-017 | AS06-A025

Origins and Radiative Impacts of Differences in Tropical High Clouds Among Reanalyses
Jonathon WRIGHT[1#+], Xiaoyi SUN[1]
[1]Tsinghua University

AS07-D1-EVE-P-018 | AS07-A006

Long-term Trend of O3 in a Mega City (Shanghai), China: Characteristics, Causes, and Interactions with Precursors
Wei GAO[1#+]
[1]Yangtze River Delta Center for Environmental Meteorology Prediction and Warning

AS07-D1-EVE-P-019 | AS07-A008

Distribution of Oxygenated and Biogenic Volatile Organic Compounds in Guanzhong Basin and Their Impacts on Ozone Formation
Wenting DAI[1#+]
[1]Chinese Academy of Sciences

AS07-D1-EVE-P-021 | AS07-A010

Short-term Weather Patterns Modulate Air Quality in Eastern China During 2015–2016 Winter
Shuyu ZHAO[1#], Tian FENG[1], Xuexi TIE[2], Wenting DAI[1+], Jiamao ZHOU[1], Xin LONG[1], Guohui LI[1], Junji CAO[1]
[1]Chinese Academy of Sciences, [2]National Center for Atmospheric Research

AS07-D1-EVE-P-022 | AS07-A011

Morphologies and Elemental Compositions of Local Biomass Burning Particles at Urban and Glacier Sites in Southeastern Tibetan Plateau

Tafeng HU[1#+], Junji CAO[1], Daizhou ZHANG[2]
[1]Chinese Academy of Sciences, [2]Prefectural University of Kumamoto

AS07-D1-EVE-P-024 | AS07-A017

Impact of Synoptic Pattern and Meteorological Elements on the Wintertime Air Quality in Beijing-Tianjin-Hebei in Recent 5 Years

Naifang BEI[1#+], Xiaopei LI[1]
[1]Xi'an Jiaotong University

AS07-D1-EVE-P-025 | AS07-A018

The Spatial-temporal Variability of Ground-level Ozone Pollution in Eastern China and its Relationship with Meteorological Factors

Yueming DONG[1+], Jing LI[1#]
[1]Peking University

AS07-D1-EVE-P-026 | AS07-A019

The Effects of Aerosol-radiation Feedback on Meteorology and Air Quality Under Four Different Synoptic Situations over the Guanzhong Basin

Luying YAN[1+], Naifang BEI[1#]
[1]Xi'an Jiaotong University

AS07-D1-EVE-P-027 | AS07-A025

Impacts of Short-term Mitigation Measures on PM2.5 and Radiative Effects: A Case Study at a Regional Background Site Near Beijing, China

Qiyuan WANG[1#+]
[1]Institute of Earth Environment, Chinese Academy of Sciences

AS07-D1-EVE-P-029 | AS07-A027

Spatial Variability and Climatological Trends in Aerosol Optical Depth over the Fenwei Plain, China Inferred from MODIS Collection 6.1 Aerosol Products

Xiaoli SU[1#+]
[1]Institute of Earth Environment, Chinese Academy of Sciences

AS09-D1-EVE-P-030 | AS09-A003

Microwave Radiative Transfer in Rain Cells: Implication for Radar Sounding and Radiometry

Yaroslaw ILYSHIN[1,2#+], Boris KUTUZA[3]
[1]Moscow State University, [2]Kotlenikov Radio Engineering Institute, Moscow, Russia, [3]Kotelnikov Institute of Radioengineering and Electronics of Russian Academy of Sciences

AS09-D1-EVE-P-031 | AS09-A004

NICAM Results of the Project DYAMOND for Global Storm-resolving Model Intercomparison

Masaki SATOH[1#+], Ryosuke SHIBUYA[2], Chihiro KODAMA[2]
[1]The University of Tokyo, [2]Japan Agency for Marine-Earth Science and Technology

AS09-D1-EVE-P-032 | AS09-A005 (Invited)

Stratospheric Influence on the Aggregation of Tropical Moist Convective Systems

Shigeo YODEN[1#+], Hai BUI[2], Takahiro BANNO[1]
[1]Kyoto University, [2]University of Bergen

AS09-D1-EVE-P-033 | AS09-A006 (Invited)

Changes of Clouds and Large-scale Circulations Due to Global Warming in Multi-decadal Global Nonhydrostatic Simulations

Akira NODA[1#+], Chihiro KODAMA[1], Yohei YAMADA[1], Masaki SATOH[2], Tomoo OGURA[3], Tomoki OHNO[1]
[1]Japan Agency for Marine-Earth Science and Technology, [2]The University of Tokyo, [3]National Institute for Environmental Studies

AS09-D1-EVE-P-034 | AS09-A010

Numerical Investigation of Dynamic and Thermodynamic Effects on Formation of Convective Lines off the Eastern Coast of Taiwan

Pay-Liam LIN[1#+], Chien-Chuan CHAN[1]
[1]National Central University

AS09-D1-EVE-P-035 | AS09-A011

Resolution Dependencies of Tropical Convection in Global Cloud/Cloud-system Resolving NICAM

Tomoki MIYAKAWA[1#+], Hiroaki MIURA[1]
[1]The University of Tokyo

AS11-D1-EVE-P-036 | AS11-A001

Study of Vertical Wavenumber Spectra During Sudden Stratospheric Warmings over India

Priyanka GHOSH[1], Som Kumar SHARMA[1#+]
[1]Physical Research Laboratory

AS11-D1-EVE-P-037 | AS11-A002

Satellite Remote Sensing of the Earth's Atmosphere and Surface Using Hyperspectral Observations

Xu LIU[1#+]
[1]NASA Langley Research Center

AS11-D1-EVE-P-038 | AS11-A004

Vertical Profiles of Particle Light Extinction Coefficient in the Low Troposphere in Shanghai in Winter Based on Tethered Balloon Measurements

Qingqing WANG[1#+], Dongfang WANG[2], Yong YANG[2], Guangli XIU[3], Qingyan FU[2], Yele SUN[4]
[1]Institute of Atmospheric Physics, Chinese Academy of Sciences, [2]Shanghai Environmental Monitoring Center, [3]East China University of Science and Technology, [4]Chinese Academy of Sciences

AS11-D1-EVE-P-039 | AS11-A012

Impact of Rossby Wave Breaking on the Lower Tropospheric Ozone over Central Himalayan Region

Niranjan Kumar KONDAPALLI[1#+], D. V. PHANIKUMAR[2], Manish NAJA[2], Som Kumar SHARMA[1], TBMJ OUARDA[3]
[1]Physical Research Laboratory, [2]Aryabhatta Research Institute of Observational Sciences, [3]National Institute for Scientific Research

AS11-D1-EVE-P-040 | AS11-A016

Potential Changes of Summertime Surface Air Temperature and Precipitation in China During the Near-future Period: Projections and Uncertainties

Jie ZHANG[1#+], Tongwen WU[2], Li ZHANG[2]
[1]National Climate Center, China Meteorological Administration, [2]China Meteorological Administration

AS11-D1-EVE-P-041 | AS11-A018

ERA-5 and MERRA-2 Temperature Trends in the Stratosphere

Michal KOZUBEK[1#+]
[1]Czech Academy of Sciences

AS12-D1-EVE-P-042 | AS12-A002

A Case Study of Assimilation of Radar and Cloud-to-ground Lightning Data with 3DVAR Combined with Physical Initialization Method

Ruhui GAN[1+], Yi YANG[1#]
[1]*Lanzhou University*

AS12-D1-EVE-P-043 | AS12-A003

Improving Forecasting of Strong Convection by Assimilating FY4 Lightning Data Using WRF-3DVAR

Peng LIU[1+], Yi YANG[1#]
[1]*Lanzhou University*

AS12-D1-EVE-P-044 | AS12-A009

Assimilation of Simulated Polarimetric Radar Data for a Tornadic Supercell with Two-moment Microphysics Scheme and Ensemble Kalman Filter

Kefeng ZHU[1#+], Ming XUE[1,2]
[1]*Nanjing University,* [2]*The University of Oklahoma*

AS12-D1-EVE-P-045 | AS12-A012

Impact of AMSR2 Data Assimilation in the KIAPS DA System

Han-Byeol JEONG[1#+], Hyoung-Wook CHUN[1], Sihye LEE[1]
[1]*Korea Institute of Atmospheric Prediction Systems (KIAPS)*

AS12-D1-EVE-P-046 | AS12-A013

Stochastically Perturbed Forcing with KIM-LETKF System

Sujeong LIM[1#+], In-Hyuk KWON[1], Myung-Seo KOO[1]
[1]*Korea Institute of Atmospheric Prediction Systems (KIAPS)*

AS12-D1-EVE-P-047 | AS12-A014

Analysis of Forecast Performance by Altered Conventional Observation Set

Hyun-Jun HAN[1#+], In-Hyuk KWON[1], Jeon-Ho KANG[1], Hyoung-Wook CHUN[1], Sihye LEE[1], Sujeong LIM[1], Tae-Hun KIM[1]
[1]*Korea Institute of Atmospheric Prediction Systems (KIAPS)*

AS12-D1-EVE-P-048 | AS12-A015

Evaluating the Effect of Assimilating Cloud-contaminated Radiances in Regional Air Quality Forecasting: A Case Study Using Synthetic Radiance Data

Ebony LEE[1+], Seon Ki PARK[1#]
[1]*Ewha Womans University*

AS12-D1-EVE-P-049 | AS12-A020

Blending of Global and Regional Analyses/Forecasts with a Spatial Filter

Anurag DIPANKAR[1#+], Xiang-Yu HUANG[2]
[1]*Meteorological Service Singapore,* [2]*Centre for Climate Research Singapore*

AS12-D1-EVE-P-050 | AS12-A021

Investigation of Aerosol Effects on Weather Forecast Using NCEP Global Forecast and Analysis System

Sarah LU[1#+], Shih-Wei WEI[2], Andrew COLLARD[3], Quanhua LIU[4]
[1]*University at Albany - State University of New York,* [2]*University at Albany, State University of New York,* [3]*NOAA National Centers for Environmental Prediction,* [4]*NOAA Center for Satellite Application and Research*

AS18-D1-EVE-P-051 | AS18-A001

Stable Carbon Isotope Analysis of Airborne Particulate Matter Using a Carbon Aerosol Analyzer and a Cavity Ringdown Spectrometer

Zhiwei LIN[1#+], Thomas GOTTSCHALK[1], Xiaojing ZHANG[2]
[1]*Picarro Inc.,* [2]*Picarro, Inc.*

AS18-D1-EVE-P-052 | AS18-A004

Chemical Characteristics of Primary and Aged Fine Particulate Matter from Biomass Burning Smoke

Kin Fai HO[1#+], Junji CAO[2]
[1]*The Chinese University of Hong Kong,* [2]*Chinese Academy of Sciences*

AS18-D1-EVE-P-053 | AS18-A006

Identification and Quantification of Ambient Acidic Ultrafine Particles Using a Self-developed Diffusion Sampler

Haoxian LU[1+], Hai GUO[1#]
[1]*The Hong Kong Polytechnic University*

AS18-D1-EVE-P-054 | AS18-A009

Secondary Organic Aerosol Formation from Isoprene Epoxides at Three Sites over China

Yuqing ZHANG[1+], Xiang DING[1#]
[1]*Guangzhou Institute of Geochemistry, Chinese Academy of Sciences*

AS24-D1-EVE-P-055 | AS24-A001

Impact of Urban Induced Land Use Change on Local Weather over Two Tropical Indian Cities During Pre-monsoon Thunderstorms

Sudhansu Sekhar RATH[1+], Jagabandhu PANDA[1#]
[1]*National Institute of Technology, Rourkela*

AS24-D1-EVE-P-056 | AS24-A002

The Effect of Urbanisation on Humidity Concentration in a High-rise and High-density City

Zixuan WANG[1#+], P.W. CHAN[2], Yuguo LI[1]
[1]*The University of Hong Kong,* [2]*Hong Kong Observatory*

AS24-D1-EVE-P-057 | AS24-A006

Incorporation of the Urban Morphology and Governing Physics Including the Building Anthropogenic Heat Source in the Mesoscale NWP WRF Model's PX-LSM and ACM2-PBL Scheme and its Simulation over the PRD Region in Southern China

Utkarsh BHAUTMAGE[1#+], Jimmy Chi Hung FUNG[1], Jonathan PLEIM[2], Alexis LAU[1]
[1]*The Hong Kong University of Science and Technology,* [2]*United States Environmental Protection Agency*

AS24-D1-EVE-P-058 | AS24-A010

Investigating the Three-dimensional Characteristics of the Canopy Layer Urban Heat Island in Singapore

Minghong YU[1#+], Matthias ROTH[1]
[1]*National University of Singapore*

AS24-D1-EVE-P-059 | AS24-A013

Vegetation Biophysical and Ecophysiological Properties Mediating Urban Microclimate and Water Fluxes: A Modelling Study

Naika MEILI[1#+], Simone FATICHI[1], Gabriele MANOLI[1], Paolo BURLANDO[1], Matthias ROTH[2], Erik VELASCO[3], Edoardo DALY[4], Kerry A. NICE[4,5], Nigel J. TAPPER[4], Andrew M. COUTTS[4,6], Winston CHOW[2], Enrique R. VIVONI[7]
[1]*ETH Zurich,* [2]*National University of Singapore,* [3]*Independent Researcher,* [4]*Monash University,* [5]*University of Melbourne,* [6]*Cooperative Research Centre for Water Sensitive Cities,* [7]*Arizona State University*

AS24-D1-EVE-P-061 | AS24-A018

Evaluation of the Performance of a Hierarchy of Urban Canopy Schemes for Singapore

Quang-Van DOAN[1#+], Anurag DIPANKAR[2], Andres SIMON-MORAL[3], Xiang-Yu HUANG[1]
[1]*Centre for Climate Research Singapore,* [2]*Meteorological Service Singapore,* [3]*National University of Singapore*

AS24-D1-EVE-P-063 | AS24-A021

Assessment of Industrial Heat Island Using a Numerical Modeling Approach
Vivek Kumar SINGH[1#+], Manju MOHAN[1], Shweta BHATI[1]
[1]Indian Institute of Technology Delhi

AS24-D1-EVE-P-064 | AS24-A023

Effects of Urbanization on Hail and Tornado Characteristics
Jiwen FAN[1#+], Yun LIN[1], Jong-Hoon JEONG[1]
[1]Pacific Northwest National Laboratory

AS24-D1-EVE-P-065 | AS24-A026

On the Analysis of High-rise Building Typologies to Improve Outdoor Thermal Comfort in Singapore
Juan A. ACERO[1#+], Elliot KOH[1], Lea RUEFENACHT[2], Leslie NORFORD[3]
[1]Singapore-MIT Alliance for Research and Technology, [2]Singapore-ETH Centre, [3]Massachusetts Institute of Technology

AS24-D1-EVE-P-066 | AS24-A027

High-resolution Regional Climate Model Experiments Focusing on Urban Impact in the Tokyo Metropolitan Area in Summer
Ibuki SUGINO[1+], Yasutaka WAKAZUKI[1,2#]
[1]Ibaraki University, [2]Japan Agency for Marine-Earth Science and Technology

AS24-D1-EVE-P-068 | AS24-A030

Spatial Distribution of Heat Stress Within Urban Districts Around Tokyo
Ryoko ODA[1#+], Kyosuke KAWANO[1], Atsushi INAGAKI[2], Eiji YAUCHI[1]
[1]Chiba Institute of Technology, [2]Tokyo Institute of Technology

AS25-D1-EVE-P-069 | AS25-A008 (Invited)

Marine Wind Field in and Around Tropical Cyclone Estimated from Multi-platform Satellite Measurements
Seung-Woo LEE[1#+], Sung-Hyun NAM[1]
[1]Seoul National University

AS25-D1-EVE-P-070 | AS25-A010

Typhoons Parma and Melor: A Fujiwhara Case Study
Ravi Shankar PANDEY[1#+], Yuei-An LIOU[1]
[1]National Central University

AS25-D1-EVE-P-071 | AS25-A013

Bias Characterization of Advanced Meteorological Imager Infrared Observation Using NWP Model Data
Tae-Myung KIM[1+], Su Jeong LEE[1], Myoung-Hwan AHN[1#]
[1]Ewha Womans University

AS30-D1-EVE-P-072 | AS30-A008

Characteristics of the Marine Boundary Layer Jet over the South China Sea During the Early Summer Rainy Season of Taiwan
Chuan-Chi TU[1], Yi-Leng CHEN[2#], Pay-Liam LIN[1+], Yu DU[3]
[1]National Central University, [2]University of Hawaii at Manoa, [3]Sun Yat-sen University

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Cheng Tai CHANG[1#+], Pay LIAM[1]
[1]National Central University

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[1]National Central University

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Jayalakshmi JANAPATI[1+], Balaji Kumar SEELA[1,2], Pay-Liam LIN[1#], Pao WANG[2,3]
[1]National Central University, [2]Academia Sinica, [3]University of Wisconsin-Madison

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Mei-Yu CHANG[1#+], Pay-Liam LIN[2], Tim LI[3], Ming-Dah CHOU[2]
[1]Central Weather Bureau, [2]National Central University, [3]University of Hawaii

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Verification of Multiple-doppler-radar Derived Vertical Velocity Using Profiler Data
YI-An CHEN[1#+], Yu-Chieng LIOU[1]
[1]National Central University

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Diagnosing Observation Error Correlations for Dopper Radar Radial Winds Based on the WRF-LETKF Data Assimilation System
Hao-Lun YEH[1#+], Hsiang-Wen CHENG[1], Shu-Chih YANG[1]
[1]National Central University

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Hsiao-Jou SHIH[1#+], Pay-Liam LIN[1]
[1]National Central University

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Meng-Tze LEE[1+], Pay-Liam LIN[1#], Wei-Yu CHANG[1], Balaji Kumar SEELA[1,2]
[1]National Central University, [2]Academia Sinica

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Hong WANG[1#+], Yue PENG[1], Xiaoye ZHANG[1], Hongli LIU[1]
[1]Chinese Academy of Meteorological Sciences

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Spatial-temporal Characteristics of Haze and its Forming Reason in Jiangxi Province
Lujun JIANG[1+], Ximing LIU[1#]
[1]Jiangxi Institute of Meteorological Science

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[1]Sun Yat-sen University, [2]Tohoku University

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[1]Sun Yat-sen University, [2]Massachusetts Institute of Technology, [3]National University of Singapore, [4]The Chinese University of Hong Kong

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[1]Chinese Academy of Meteorological Sciences, [2]Sun Yat-sen University, [3]Texas A&M University, [4]University of Washington

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Estimating Ground-level PM2.5 Concentration in China Using Geographically Weighted Regression Based on Satellite AOD Combined with CALIPSO and MODIS Fire Count
Wei YOU[1#+], Zengliang ZANG[1], Pan XIAOBIN[1], He HONGRANG[1]
[1]National University of Defense Technology

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Zhao WAN[1#+]
[1]Sun Yat-sen University

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ENSO Regulation on the Sub-seasonal Prediction Skill of Surface Maximum Temperature over Yangtze River Basin in China
Jing YANG[1#+]
[1]Beijing Normal University

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Development of an Atmosphere-ocean Coupled Data Assimilation System for Subseasonal-to-seasonal Forecasts
Nakbin CHOI[1+], Myong-In LEE[1#]
[1]Ulsan National Institute of Science and Technology

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Effects of the Tropical/Extratropical Intraseasonal Oscillations on Generating the Heat Wave over Yangtze River Valley: A Numerical Study
Xin QI[1#+]
[1]Beijing Normal University

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Baosheng LI[1+], Jianhuang QIN[1], Lei ZHOU[1#]
[1]Shanghai Jiao Tong University

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Andrew W. ROBERTSON[1#+], Vincent MORON[2]
[1]Columbia University, [2]Aix-Marseille Université

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Seok-Woo SON[1#], Hera KIM[1+], Kanghyun SONG[1], Sang-Wook KIM[1], Patrick MARTINEAU[2]
[1]Seoul National University, [2]The University of Tokyo

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Chan-Yeong SONG[1+], Hye-Jin PARK[1], Vladimir KRYJOV[2]
[1]Pusan National University, [2]Hydrometcenter of Russia

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Eung-sup KIM[1#+], Gerelchuluun BAYASGALAN[2]
[1]Pusan National University, [2]Information and Research Institute of Meteorology, Hydrology and Environment

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[1]National Autonomous University of Mexico

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Jui-Pin TSAI[1#+], Chin Tsai HSIAO[2], Liang-Cheng CHANG[3], Chun-Hung CHEN[4], Yun-Ta CHENG[4], Jen-Hung YU[4]
[1]National Cheng Kung University, [2]Chung Chou University of Science and Technology, [3]National Chiao Tung University, [4]Ministry of Economic Affairs

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Yue LIANG[1#+], Tian-Chyi Jim YEH[2]
[1]Chongqing Jiaotong University, [2]University of Arizona

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[1]Chung Chou University of Science and Technology, [2]National Cheng Kung University

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[1]Chapman University

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[1]Feng Chia University, [2]National Chiao Tung University, [3]Chung Chou University of Science and Technology

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[1]National Central University

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Present-day Geothermal Regime of the Yangtze Tectonic Area, South China

Shaowen LIU[1#+], Xianglan LI[1], Chunyan HAO[1]
[1]*Nanjing University*

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Kai Yuan KE[1#+], Ji Hua LIN[1], Yun Ping WANG[1]
[1]*National Taiwan University*

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Aeolian Environments and Sand Transport in the Desert-oasis Transitional Area of Dunhuang, China

Kecun ZHANG[1#+], Shengbo XIE[1]
[1]*Chinese Academy of Sciences*

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Risk Assessment of Gale Damage in Anhui Province, China

Dongyan HE[1#+], Xueliang DENG[2]
[1]*Anhui Climate Center,* [2]*Anhui Institute of Meteorology*

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Storm Surge Modeling, Simulation and Early Warning System in the Philippines

Vena Pearl BONGOLAN[1,2], Alezon Maxine VALERIO[1#+], Michael GARCIA[1]
[1]*University of the Philippines Diliman,* [2]*ICSU Regional Office for Asia and the Pacific*

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Yasuhiro MURAKAMI[1#+]
[1]*Civil Engineering Research Institute for Cold Region*

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Yoshiyuki KANEDA[1#+]
[1]*Kagawa University*

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Alec Benjamin RAMIREZ[1#+], Noelynna RAMOS[1]
[1]*University of the Philippines Diliman*

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Geomorphological Imprints of the 1976 Moro Gulf Tsunami in Western Mindanao Island, Philippines

Sheinna May CLARO[1#+], Noelynna RAMOS[1]
[1]*University of the Philippines Diliman*

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Characteristics of Event Sediments Confirmed in the Shiraho District on the East Coast of Ishigaki Island, Southwest Japan

Shiro TANAKA[1#+], Takumi YOSHII[1], Kiyoshi ICHIKAWA[2], Satoshi SOGI[3], Yuki ITO[1], Takaomi HAMADA[1], Masafumi MATSUYAMA[1]
[1]*Central Research Institute of Electric Power Industry,* [2]*Hanshin Consultants Co., Ltd.,* [3]*Aero Photo Center Co., Ltd.*

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Recent Changes in the Frequency of Occurrence of Extreme Weather Events in South Korea

Jina HUR[1+], Kyo-Moon SHIM[1#], Yongseok KIM[1], Kee-Kyung KANG[1], Myung-Pyo JUNG[1]
[1]*National Institute of Agricultural Sciences*

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Mining the Full-text Produced by a Crowd-sourced Transcription Project "Minna de Honkoku"

Yasuyuki KANO[1#+], Yuta HASHIMOTO[2]
[1]*The University of Tokyo,* [2]*National Museum of Japanese History*

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A Dam Failure in the Mekong Basin, Laos, 2018: Possible Cause of the Failure and Impacts of Flash Flood

Edgardo LATRUBESSE[1], Edward PARK[1#+], Kerry SIEH[1], Nina LIN[2], Thang DANG[3]
[1]*Nanyang Technological University,* [2]*National Taiwan University,* [3]*Singapore University of Technology and Design*

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Jiyoon MOON[1#+], Kwangjae LEE[1], Eunseon KIM[1]
[1]*Korea Aerospace Research Institute*

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Hydrothermal Variation and its Influence on the Desertified Ground Surface of Qinghai–Tibet Plateau

Shengbo XIE[1#+], Kecun ZHANG[1]
[1]*Chinese Academy of Sciences*

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Jeremy James JIMENEZ[1#+], Richard YBAÑEZ[1], Carlo ARCILLA[1], Nancy AGUDA[1], Maria Elizabeth LAUS[1], Antonio REYNO[1]
[1]*University of the Philippines Diliman*

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Zhaohui YANG[1#+], Xin WANG[2], xinmin XIE[1], huaxiang HE[1], Weiwei SHAO[1]
[1]*China Institute of Water Resources and Hydropower Research,* [2]*Shanghai Tianhua Urban Planning Ltd.*

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Evaluation of Tsunami Risk Reduction Effect by Afforestation Area in Coastal Area of Indonesia

Akihiro HAYASHI[1#+], Kei YAMASHITA[1], Fumihiko IMAMURA[1], Takayuki HAYASHI[2], Ichiro SATO[2]
[1]*Tohoku University,* [2]*Tokio Marine & Nichido Risk Consulting Co., Ltd.*

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Governing Flow Characteristics in Influencing Port Structure Damage in 2011 Great East Japan Tsunami

Constance Ting CHUA[1#+], Adam SWITZER[1], Anawat SUPPASRI[2], Linlin LI[3], Kwanchi PAKOKSUNG[2], David LALLEMANT[1]
[1]*Nanyang Technological University,* [2]*Tohoku University,* [3]*National University of Singapore*

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High-rise Building Damage in Storm Surges: Lessons Learnt from Typhoon Hato

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[1]Nanyang Technological University, [2]National University of Singapore, [3]University of Macau

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Donlaporn SAETAE[1], Woraluck HONGTO[1+], Worachat WANNAWONG[2#]

[1]Mahidol University, [2]Sun Yat-sen University

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Sensitivity Analysis of Exposure for Flood Risk Assessment in Data Scarce Areas: Monywa, Myanmar

Tian Ning LIM[1#+], David LALLEMANT[2]

[1]Earth Observatory of Singapore, Nanyang Technological University, [2]Nanyang Technological University

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Using Molecular Ecology to Differentiate Between Storm and Tsunami Deposits at Phra Thong Island, Thailand

Federico LAURO[1#+], Wenshu YAP[1], Adam SWITZER[1], Christos GOURAMANIS[2], Dale DOMINEY-HOWES[3], Maurizio LABBATE[4]

[1]Nanyang Technological University, [2]National University of Singapore, [3]University of Sydney, [4]University of Technology Sydney

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Junho MAENG[1+], Hyeyun KU[1#]

[1]Korea Environment Institute

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Internal Flood Risk Analysis at Major SOC Site Considering Climate Change

Beom Jin KIM[1+], Kun-Yeun HAN[1#], Ho Jun KEUM[1], Jae Yeong LEE[1], Hyun Il KIM[1]

[1]Kyungpook National University

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Hong-Geun CHOI[1#+], Hyun-Han KWON[1], Dinh-Huy NGUYEN[1]

[1]Sejong University

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[1]National Central University, [2]National Taipei University

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Shusaku YAMAZAKI[1#+], Yoshihiko ITO[1], Terumasa NISHIHARA[1], Toshiyuki KURAHASHI[1]

[1]Civil Engineering Research Institute for Cold Region

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Swapna ACHARJEE[1#+]

[1]State Remote Sensing Application Centre

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Sangmi YOON[1+], Jung Hyun CHOI[1#]

[1]Ewha Womans University

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Yueling CAO[1#+], Xiaogong HU[1], Shanshi ZHOU[1], Qiuning TIAN[1]

[1]Chinese Academy of Sciences

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Wystan CONCEPCION[1#+], James Gabriel ABAJA[1], Vena Pearl BONGOLAN[1,2]

[1]University of the Philippines Diliman, [2]ICSU Regional Office for Asia and the Pacific

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Hong-Hyun KIM[1#+], Sangjo JEONG[1]

[1]Korea Military Academy

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Edward PARK[1#+], Edgardo LATRUBESSE[1], Samia AQUINO[1]

[1]Nanyang Technological University

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Yongseok KIM[1#+], Myung-Pyo JUNG[1], Kee-Kyung KANG[1], Kyo-Moon SHIM[1]

[1]National Institute of Agricultural Sciences

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[1]National Institute of Agricultural Sciences

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Antonio CORREIA[1#+]

[1]University of Evora

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Yuhu ZHANG[1+], Xiao PU[1#]

[1]Capital Normal University

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Landsat-MODIS Image Fusion and Object-based Image Analysis on Flood Inundation Mapping in Cambodia

Phuong D. DAO[1#], Hai-Po CHAN[2+], Ngoc Thi MONG[2]

[1]University of Toronto, [2]National Central University

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Anomalous Urban Effect on Local Lightning over Two Metropolitan Cities of Taiwan

Sanjib KAR[1], Hai-Po CHAN[1#+]

[1]National Central University

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Chian-Yi LIU[1#+], En-Hao CHEN[1]

[1]National Central University

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Cloud Detection in Optical Remote Sensing Imagery Through Machine Learning

Hung-Hsien WAN[1#+], Kuo-Hsin TSENG[1], Ying-Nong CHEN[1]

[1]National Central University

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Fiolenta MARPAUNG[1#+]

[1]Agency for the Assessment and Application of Technology

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C. K. SHUM[1,2#+], Tarig ALI[3], Ratnesh BHATTACHARYA[4], Xiaobin CAI[1], Ardershir CONTRACTOR[1], Yuanyuan JIA[1], Chung-Yen KUO[5], Yu ZHANG[1]

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Effects of Different Straw Biochar on Soil Organic Carbon, Nitrogen, Available Phosphorus and Enzymatic Activities in Paddy Soils of Eastern China

Xiao PU[1+], Yuhu ZHANG[1#]

[1]Capital Normal University

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A Revolutionized DEM Improvement Technique for Highly Dense Urban Cities: Better Than German Aerospace's TanDEM-X?

Dongeon KIM[1,2#+], Shie-Yui LIONG[1], Philippe GOURBESVILLE[2], Jiandong LIU[1]

[1]National University of Singapore, [2]University of Nice Sophia Antipolis

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Lu XIA[1#+]

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Development of the Raman Lidar System for Remote Sensing of Surface CO2 Leakage at an Artificial Carbon Capture and Storage Site

Daewon KIM[1], Hanlim LEE[1#+], Seong-Taek YUN[2], Seong-Chun JUN[3], Youngmin NOH[1]

[1]Pukyong National University, [2]Korea University, [3]GeoGreen21 Co. Ltd

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Huimin WANG[1], Jianguo WANG[1#+], Bowen HU[1]

[1]China University of Mining and Technology

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Qi LI[1#+], Xiaoyan ZHANG[2], Liang XU[2]

[1]Chinese Academy of Sciences, [2]University of Chinese Academy of Sciences

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Qi LI[1#+], Xiaying LI[1], Xinglin LEI[2]

[1]Chinese Academy of Sciences, [2]National Institute of Advanced Industrial Science and Technology

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Xiaochen WEI[1+], Jingxuan ZHANG[1], Xiangjun LIU[1#], Lixi LIANG[1]

[1]Southwest Petroleum University

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Huirong GUO[1#+], Zhe WANG[2]

[1]China University of Geosciences, [2]China University of Geosciences (Wuhan)

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Monitoring of an ECBM Field Trial in China

Zhiming FANG[1#+], Xiaochun LI[2], Ning WEI[2]

[1]Institute of Rock and Soil Mechanics, Chinese Academy of Sciences, [2]Chinese Academy of Sciences

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Hongwu LEI[1#+]

[1]Chinese Academy of Sciences

IG18-D1-EVE-P-166 | IG18-A002

Biển Hồ Maar Sediment as a Time Capsule of Past Environmental and Climate Conditions in Vietnam's Central Highlands Back to the Last Glacial Maximum

Huong NGUYEN-VAN[1#+], Arndt SCHIMMELMANN[2], Duong NGUYEN-THUY[1], Ingmar UNKEL[3], Jan SCHIMMELMANN[4], Thai NGUYEN-DINH[1], Kelsey DOIRON[2], Antti OJALA[5], Peter SAUER[2], Agnieszka DROBNIAK[2], Duong NGUYEN-THUY[1], Nguyet NGUYEN-THI-ANH[1], Quoc DO-TRONG[1], Hong NGUYEN-THI[1], Hoan NGUYEN-TRONG[1], Nhat NGUYEN-HONG[1], Anh VU-NGOC[1], Simon BRASSELL[2], Minh SCHIMMELMANN[2]

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IG18-D1-EVE-P-167 | IG18-A008

Speleothem δ18O Records from South-western Brazil

Minn Lin WONG[1#+], Edgardo LATRUBESSE[2], Maximiliano BAYER[3], Xianfeng WANG[2]

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IG18-D1-EVE-P-168 | IG18-A009

High-resolution Hydroclimate Variability in Tropical South America over the Past 800 Years

Xianfeng WANG[1#+], Ke LIN[1,2]

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IG18-D1-EVE-P-169 | IG18-A013

Late Holocene Climate Changes and Possible Forcing Mechanisms over the High Central Asia

Jianghu LAN[1#+], Hai XU[2]

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IG18-D1-EVE-P-171 | IG18-A017

A Stalagmite-inferred Hydroclimate Record over the Past 1400 Years in Okinawa, Japan

Ryu UEMURA[1#+], Ryuji ASAMI[2], Mahjoor Ahmad LONE[3], Yu-Chen CHOU[3], Chuan-Chou SHEN[3]

[1]Nagoya University, [2]Tohoku University, [3]National Taiwan University

IG18-D1-EVE-P-172 | IG18-A018

Asian ITCZ Migration in Response to the Global Climate Changes: Revealed by Subtropical Paleo-precipitation Records from Stalagmites in Northwestern Vietnam

Yue-Gau CHEN[1#+], Chi-Dung NGUYEN[1], Yin LIN[1], Hong-Wei CHIANG[1], Doan Dinh LAM[2], Xianfeng WANG[3], Shufang YUAN[3], Mahjoor Ahmad LONE[1], Tsai-Luen YU[1], Chuan-Chou SHEN[1]

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IG18-D1-EVE-P-173 | IG18-A020

Stalagmite-inferred Dramatic Change in SW China Vegetation Coverage over the Past 300 Years

Ke LIN[1,2#+], Xianfeng WANG[1], Wuhui DUAN[3], Xinggong KONG[4], Liangcheng TAN[3], Chuan-Chou SHEN[2]

[1]Nanyang Technological University, [2]National Taiwan University, [3]Chinese Academy of Sciences, [4]Nanjing Normal University

IG19-D1-EVE-P-174 | IG19-A001

Transition from Open Vent Magmatic Eruptions to Phreatic Fissure Events, Gamalama Volcano, North Maluku, East Indonesia

Nia HAERANI[1#], Ugan SAING[1], Philipson BANI[2], Syegi KUNRAT[1+], Alessandro AIUPPA[3], Devy Kamil SYAHBANA[1]

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IG19-D1-EVE-P-175 | IG19-A003

First Characterization of Gamkonora Magmatic Gas Emission, North Maluku, Indonesia

Ugan SAING[1#+], Philipson BANI[2], Nia HAERANI[1], Alessandro AIUPPA[3], Sofyan PRIMULYANA[1], Hilma ALFIANTI[1], Mita MARLIA[1], Devy Kamil SYAHBANA[1], Kristianto KRISTIANTO[1]

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IG19-D1-EVE-P-176 | IG19-A004

Basaltic Magma Injection as a Trigger of the Increasing Activity of Mount Agung, Bali, Indonesia

Adzkia Noerma ARIFA[1+], I G.B. Eddy SUCIPTA[1#], Asep SAEPULOH[1], Sri WIDIYANTORO[1]

[1]Bandung Institute of Technology

IG19-D1-EVE-P-177 | IG19-A005

SO2 Emission Budget From North Maluku and Sulawesi Volcanoes Based on Ground Based Measurements

Kristianto KRISTIANTO[1+], Etienne LE GLAS[2], Philipson BANI[3#], Devy Kamil SYAHBANA[1], Hendra GUNAWAN[1], Ugan SAING[1], Sofyan PRIMULYANA[1], Hilma ALFIANTI[1]

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IG20-D1-EVE-P-178 | IG20-A006

Deep Learning Approach for Aerosol Optical Depth Modeling in Egypt

Wenzhao LI[1#+], Hesham EL-ASKARY[1], Maram EL-NADRY[2], Alaa Ramadan MOSTAFA[2]

[1]Chapman University, [2]Alexandria University

IG20-D1-EVE-P-179 | IG20-A007

Source Identification Using Potential Source Density Functions (PSDFs) for Pollutants with Finite Residence Time

Insun KIM[1], Jiyeon CHOI[1], Daehyun WEE[1#+]

[1]Ewha Womans University

IG20-D1-EVE-P-180 | IG20-A009

Real-time Rainfield Algorithm for Road Safety in Seoul

Sanghoo YOON[1#+], Huijun KIM[1], Daeseong KIM[1], Seungjae KIM[1]

[1]Daegu University

IG24-D1-EVE-P-182 | IG24-A003

Creating a Digital Archive of Stone Monuments Handed Down Disasters and Using Them for Disaster Prevention Learning in the Izu Peninsula Geopark

Makoto KUMAGAI[1#+], Yusuke SUZUKI[2], Masaaki MINAMI[1]

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PS Poster Presentations

Mon - 29 Jul, 18:30 - 21:00 | EXHIBITION HALL

PS01-D1-EVE-P-184 | PS01-A006

Estimating the Regolith Thickness at the Chang'E-4 Landing Site by Using Small Impact Craters

Zhipeng LIU[1#+]

[1]Macau University of Science and Technology

PS02-D1-EVE-P-185 | PS02-A001

The Solar Wind Interaction with the Reiner Gamma Anomaly: The Effect of Varying the Upstream Solar Wind Conditions

Jan DECA[1#+], Andrey DIVIN[2], Bertrand LEMBEGE[3], Hsiang-Wen HSU[1], Andrew POPPE[4], Li Hsia YEO[1], Mihaly HORANYI[1]

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PS02-D1-EVE-P-186 | PS02-A002

Laboratory Studies of Solar Wind Interactions with Airless Bodies: Magnetic Anomalies and Wakes

Li Hsia YEO[1#+], Mihaly HORANYI[1], Jan DECA[1], Gregory WERNER[1], Xu WANG[1], Tobin MUNSAT[1]

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PS02-D1-EVE-P-188 | PS02-A010

Electromagnetic Field Structure of the Lunar Wake: 3D Fully Kinetic Simulations
Ivan ZAITSEV[1#+], Andrey DIVIN[1], Roman BELIAEV[1], Jan DECA[2], V. OLSHEVSKY[3], Stefano MARKIDIS[3]
[1]Saint Petersburg State University, [2]University of Colorado Boulder, [3]KTH Royal Institute of Technology

PS03-D1-EVE-P-189 | PS03-A002

Effects of Dust Storms on Upper Atmosphere of Mars: Observations and Simulations
Junfeng QIN[1+], Zou HONG[1#], Yuguang YE[1]
[1]Peking University

PS03-D1-EVE-P-190 | PS03-A009

The Planetary Spectroscopy and Mineralogy Laboratory at the University of Hong Kong: Supporting Asia's Future in Planetary Science and Mineral Exploration
Joseph MICHALSKI[1#+], Shawn WRIGHT[1]
[1]The University of Hong Kong

PS03-D1-EVE-P-191 | PS03-A011

Raman Laser Spectrometer FM Functional Verification with Real Samples in Automatic Operation
Carlos PEREZ[1#+]
[1]National Institute of Aerospace Technology

PS03-D1-EVE-P-192 | PS03-A016

Paleoclimate Evolution of Qaidam Basin from Warm and Wet to Cold and Dry Revealed by Reflectance Spectral Parameters, and its Implications for Mars
Jiacheng LIU[1+], Joseph MICHALSKI[1#], Fuyuan AN[2], Yiliang LI[1]
[1]The University of Hong Kong, [2]Chinese Academy of Sciences

PS03-D1-EVE-P-193 | PS03-A017 (Invited)

The PTAL Project: A Spectral Database in Support to Future in Situ Investigations of Mars
François POULET[1#+], Stephanie WERNER[2], Henning DYPVIK[2], Fernando RULL PEREZ[3]
[1]Paris-Sud University, [2]Oslo University, [3]Valladolid University

PS06-D1-EVE-P-194 | PS06-A003

Analytical Simulation for Asteroidal Brightness Based on Cellinoid Shape Model
Xiao-Ping LU[1#+], Alberto CELLINO[2], Wing-Huen IP[3]
[1]Macau University of Science & Technology, [2]National Institute for Astrophysics, [3]National Central University

PS06-D1-EVE-P-196 | PS06-A006

Why Earth Rotation is Important for Climate Prediction
Leonid ZOTOV[1#+]
[1]National Research University Higher School of Economics

PS06-D1-EVE-P-197 | PS06-A009

Fluid Love Numbers and Interior Structure of (Exo-)Planets
Sebastiano PADOVAN[1#+], Philipp BAUMEISTER[2], Nicola TOSI[3], Frank SOHL[3], Doris BREUER[3], Tilman SPOHN[3]
[1]DLR - German Aerospace Center, [2]Technische Universität Berlin, [3]German Aerospace Center

PS07-D1-EVE-P-199 | PS07-A006

In Situ Exploration of the Icy Giant Planets: Science Drivers and Technical Challenges
Sushil ATREYA[1#+], Olivier MOUSIS[2]
[1]University of Michigan, [2]Laboratory of Astrophysics of Marseille

PS07-D1-EVE-P-200 | PS07-A011

In-situ Observations of the PEP Instrument Onboard the Juice Spacecraft Near the Galilean Moons
Norbert KRUPP[1#+], Stas BARABASH[2], Pontus BRANDT[3], Peter WURZ[4], Elias ROUSSOS[1], Markus FRAENZ[1]
[1]Max Planck Institute for Solar System Research, [2]Swedish Institute of Space Physics, [3]The Johns Hopkins University Applied Physics Laboratory, [4]University of Bern

PS07-D1-EVE-P-201 | PS07-A014

The Long-term Evolution of Pluto's Atmosphere and its Effect on Charon's Surface Tholin Formation
Hua-Shan SHI[1#+], I Putu Wira HADIPUTRAWAN[1], Ian LAI[1], Wing-Huen IP[1]
[1]National Central University

PS07-D1-EVE-P-202 | PS07-A016

Titan's "Average" Ionospheric Structures from Cassini
Jen-Kai HSU[1#+], Wing-Huen IP[1]
[1]National Central University

PS07-D1-EVE-P-203 | PS07-A020

The Atmospheres of the Galilean Moons in Sunlight or in Shadow
Meng-Che WU[1#+], Wing-Huen IP[1], Hua-Shan SHI[1]
[1]National Central University

PS07-D1-EVE-P-206 | PS07-A024

The Dynamo Region and Zonal Circulation in Saturn Inferred from its Gravitational Field Measured by the Cassini Grand Finale
Keke ZHANG[1#+], Dali KONG[2], Gerald SCHUBERT[3]
[1]University of Exeter, [2]Chinese Academy of Sciences, [3]University of California, Los Angeles

PS07-D1-EVE-P-207 | PS07-A026

Estimates of Titan's CH4 Escape Rates
Jen-Kai HSU[1#+], Wing-Huen IP[1]
[1]National Central University

PS07-D1-EVE-P-208 | PS07-A027

A Model for the Generation and Transport of Nano-dust in the Saturnian Rings
Meng-Tse YANG[1#+], Wing-Huen IP[1]
[1]National Central University

PS07-D1-EVE-P-209 | PS07-A028

Mid-latitude Ring Rain of Saturn - Observations and Implications
Hsiang-Wen HSU[1#+], James O'DONOGHUE[2]
[1]University of Colorado Boulder, [2]NASA Goddard Space Flight Center

PS08-D1-EVE-P-211 | PS08-A001

Orbit and Tracking Data Evaluation of Chang'E-4 Relay Satellite
Yong HUANG[1#+], Songhe QIN[2], Peijia LI[1], Shan QUAN[1]
[1]Chinese Academy of Sciences, [2]Shanghai Astronomical Observatory, CAS

PS08-D1-EVE-P-213 | PS08-A010

The Lunar Atmosphere During Extreme Solar Storms
Zheng-Xian CHEN[1#+], Wing-Huen IP[1], Hua-Shan SHI[1], Meng-Che WU[1]
[1]National Central University

PS08-D1-EVE-P-215 | PS08-A014

The Diviner Lunar Radiometer: 10 Years Observing the Moon in the Thermal Infrared

Benjamin GREENHAGEN[1#+], David PAIGE[2]
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PS08-D1-EVE-P-216 | PS08-A015

VU Science Experiments (VUSE) Igluna Project, A Science Showcase for a Moon Ice Habitat

Arlene DINGEMANS[1#+], Bernard FOING[1,2], Bram DE WINTER[1]
[1]*Vrije Universiteit Amsterdam,* [2]*European Space Agency*

PS08-D1-EVE-P-217 | PS08-A016

Fitting Polarization Phase-curve of the Moon

Chae Kyung SIM[1#+], Sukbum HONG[1], Sungsoo KIM[1], Minsup JEONG[2], Young-Jun CHOI[2]
[1]*Kyung Hee University,* [2]*Korea Astronomy and Space Science Institute*

PS09-D1-EVE-P-218 | PS09-A002

Micrometeor Observations by the Arecibo 430 Mhz Incoherent Scatter Radar

Qihou ZHOU[1#+], Yanlin LI[1]
[1]*Miami University*

PS09-D1-EVE-P-219 | PS09-A004

Shock and Thermal Behavior of Synthesized Amorphous MgSiO3 as a Model Material for Cosmic Dust

Akane ARASUNA[1#+], Masayuki OKUNO[1], Nobuaki KAWAI[2]
[1]*Kanazawa University,* [2]*Kumamoto University*

PS09-D1-EVE-P-220 | PS09-A006

Science Enabled by the Cassini Cosmic Dust Analyser at Saturn

Hsiang-Wen HSU[1#+], Nicolas ALTOBELLI[2], Sascha KEMPF[1], Frank POSTBERG[3], Jurgen SCHMIDT[4], Ralf SRAMA[5]
[1]*University of Colorado Boulder,* [2]*European Space Agency,* [3]*Freie Universität Berlin,* [4]*University of Oulu,* [5]*University of Stuttgart*

PS09-D1-EVE-P-221 | PS09-A010

Construction of a New Galaxy Spectral Energy Distribution Model with Cosmic Dust Evolution

Kazuki NISHIDA[1#+], Tustomu TAKEUCHI[1]
[1]*Nagoya University*

PS09-D1-EVE-P-222 | PS09-A012

From Space to the Lab: Comparing Cometary Dust Collected and Analyzed with Rosetta with Cosmic Dust Collected and Analyzed on Earth

Sihane MEROUANE[1#+], Stefanie GUENTHER[2], Martin HILCHENBACH[1], Cecile ENGRAND[3], Olivia CHITARRA[4], Oliver STENZEL[1]
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PS09-D1-EVE-P-224 | PS09-A015

A New Dust Evolution Model in Galaxies with a Gas Infall

Sayaka NAGASAKI[1#+], Tustomu TAKEUCHI[1], Kazuki NISHIDA[1]
[1]*Nagoya University*

PS10-D1-EVE-P-225 | PS10-A004

Recurrent Dipolarization Energisation and Aurora: Corotation or Modulation?

Z. H. YAO[1#], Denis GRODENT[1], Nick SERGIS[2], Benjamin PALMAERTS[1+], Ruilong GUO[3], Katerina RADIOTI[1]
[1]*University of Liege,* [2]*Academy of Athens,* [3]*Chinese Academy of Sciences*

PS10-D1-EVE-P-226 | PS10-A008

Evidence for CO2 Ice Clouds with MAVEN/IUVS Stellar Occultation Measurements

Fayu JIANG[1,2#], Roger YELLE[2], Sonal JAIN[3], Jun CUI[1,4+], Franck MONTMESSIN[5], Nick SCHNEIDER[3], Justin DEIGHAN[3], Hannes GRÖLLER[2], Loïc VERDIER[6]
[1]*Chinese Academy of Sciences,* [2]*The University of Arizona,* [3]*University of Colorado Boulder,* [4]*Sun Yat-sen University,* [5]*National Center for Scientific Research (CNRS)/ Institut Pierre Simon Laplace (IPSL)/ Université de Versailles Saint-Quentin-en-Yvelines (UVSQ) / University Pierre et Marie Curie (UPMC),* [6]*National Center for Scientific Research (CNRS)*

PS10-D1-EVE-P-227 | PS10-A010

The Morphology of the Topside Martian Ionosphere: Implications on Bulk Ion Flow

Jun CUI[1,2#+], Xiaoshu WU[2], Shaosui XU[3], Robert LILLIS[3], Roger YELLE[4], Niklas EDBERG[5], Eric VIGREN[5]
[1]*Sun Yat-sen University,* [2]*Chinese Academy of Sciences,* [3]*University of California, Berkeley,* [4]*The University of Arizona,* [5]*Swedish Institute of Space Physics*

PS10-D1-EVE-P-228 | PS10-A011

Photochemical Escape of Atomic C and N on Mars: Clues from a Multi-instrument Maven Dataset

Jun CUI[1,2#+], Xiaoshu WU[2], Fayu JIANG[2,3], Yong WEI[2]
[1]*Sun Yat-sen University,* [2]*Chinese Academy of Sciences,* [3]*The University of Arizona*

PS10-D1-EVE-P-229 | PS10-A014

Structural Variability of the Cross-terminator Martian Ionosphere: Dawn-dusk Asymmetry and Impacts of Crustal Magnetic Fields

Yutian CAO[1#+], Jun CUI[1,2], Xiaoshu WU[1], Yong WEI[1]
[1]*Chinese Academy of Sciences,* [2]*Sun Yat-sen University*

PS10-D1-EVE-P-230 | PS10-A015

Structural Variability of the Enceladus Water Plume

Menghao FU[1#+], Jun CUI[1,2], Fayu JIANG[1,3]
[1]*Chinese Academy of Sciences,* [2]*Sun Yat-sen University,* [3]*The University of Arizona*

PS10-D1-EVE-P-231 | PS10-A016

Active Experiments Beyond the Earth: Plasma Effects of Sounding Radar Operations in the Ionospheres of Venus, Mars, and the Jovian System

Andrii VOSHCHEPYNETS[1#], Stas BARABASH[1+], Mats HOLMSTRÖM[1], Rudy FRAHM[2]
[1]*Swedish Institute of Space Physics,* [2]*Southwest Research Institute*

PS10-D1-EVE-P-232 | PS10-A017

The Martian Magnetic Pileup Boundary Configuration During the September 10th 2017 Event

Christy LENTZ[1#+], Dan BAKER[1], Laila ANDERSSON[1], Christopher FOWLER[1], Trevor LEONARD[1]
[1]*University of Colorado Boulder*

PS10-D1-EVE-P-233 | PS10-A021

Martian Magnetotail Topology with Respect to Upstream IMF

Shaosui XU[1#+], Tristan WEBER[2], David MITCHELL[1], David A. BRAIN[2], Janet LUHMANN[1], Gina DI BRACCIO[3], Shannon CURRY[1], Chaunfei DONG[4], Jasper HALEKAS[5], Yaxue DONG[2], Christian MAZELLE[6]

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PS10-D1-EVE-P-234 | PS10-A025

Variability of the Martian Ionosphere and Preliminary Results from a 3D Multi-fluid Hall MHD Model

Yuni LEE[1,2#+], Mehdi BENNA[1], Paul MAHAFFY[1]

[1]NASA Goddard Space Flight Center, [2]University of Maryland, Baltimore County

PS10-D1-EVE-P-235 | PS10-A026

GCM Modeling of Electron Impact Effects in the Mars Nightside Ionosphere

Robert LILLIS[1#+], Jean-Yves CHAUFRAY[2], David PAWLOWSKI[3], David MITCHELL[1], Mehdi BENNA[4], Meredith ELROD[4]

[1]University of California, Berkeley, [2]University Pierre et Marie Curie, [3]Eastern Michigan University, [4]NASA Goddard Space Flight Center

PS11-D1-EVE-P-236 | PS11-A004

Ocean Dynamics and the Inner Edge of the Habitable Zone for Tidally Locked Terrestrial Planets

Jun YANG[1#+], Dorian ABBOT[2], Yongyun HU[1], Adam SHOWMAN[3]

[1]Peking University, [2]University of Chicago, [3]The University of Arizona

PS12-D1-EVE-P-239 | PS12-A015

Calibration of Juno Gravity Science Data

Dustin BUCCINO[1#+], Marzia PARISI[1], William FOLKNER[1], Oscar YANG[1], Kamal OUDRHIRI[1], Daniel KAHAN[1]

[1]NASA Jet Propulsion Laboratory

PS12-D1-EVE-P-240 | PS12-A018

Juno: Union of Art and Science

Theodore CLARKE[1#+]

[1]Juno

PS12-D1-EVE-P-241 | PS12-A019

Jupiter's Magnetic Field, Beaming Half-cone Angle and Source Location of Decametric Radio Emissions Observed by Juno

Yasmina M MARTOS[1#+], Masafumi IMAI[2], J. E. P. CONNERNEY[1,3], Stavros KOTSIAROS[1], William KURTH[2]

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PS14-D1-EVE-P-242 | PS14-A001

Research of Activity of Main Belt Comets 176P/Linear, 238P/Read and 288P/2006 VW139

Jianchun SHI[1#+], Yuehua MA[1]

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PS14-D1-EVE-P-243 | PS14-A003

The Case for a Large-scale Occultation Network

Malena RICE[1#+], Greg LAUGHLIN[1]

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PS14-D1-EVE-P-244 | PS14-A005

Ammonium Salts as a Main Carrier of the 3.2 μm Band in Virtis/Rosetta Spectra of Comet 67P/Churyumov-Gerasimenko: A New Reservoir for Accounting the Missing Nitrogen?

Istiqomah ISTIQOMAH[1,2#+], Olivier POCH[1,2], Eric QUIRICO[2], Pierre BECK[1,2], Patrice THEULE[3], Bernard SCHMITT[1], Alexandre FAURE[1], Pierre HILY-BLANT[1], Batiste ROUSSEAU[4], Mauro CIARNIELLO[5], Gianrico FILACCHIONE[5], Andrea RAPONI[5], Fabrizio CAPACCIONI[5], Antoine POMMEROL[6]

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PS14-D1-EVE-P-245 | PS14-A007

Shape, Morphology and Spin-axis Evolution of Kuiper Belt Objects Due to Nucleus Activities

Yuhui ZHAO[1#+], Ladislav REZAC[2], Yuri SKOROV[2]

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PS14-D1-EVE-P-246 | PS14-A009

Sensitivity Calibration of Visible Spectroscopy Camera Onboard the Hayabusa2 Spacecraft

Marika ISHIDA[1#+], Koto AMANO[1], Keiichi MOROI[1], Eri TATSUMI[2], Tra-Mi HO[3], Shingo KAMEDA[1], Seiji SUGITA[2], Rie HONDA[4], Tomokatsu MOROTA[5], Yasuhiro YOKOTA[6], Toru KOUYAMA[7], Hidehiko SUZUKI[8], Manabu YAMADA[9], Naoya SAKATANI[6], Chikatoshi HONDA[10], Masahiko HAYAKAWA[6], Kazuo YOSHIOKA[2], Moe MATSUOKA[6], Yuichiro CHO[2], Hirotaka SAWADA[6]

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PS14-D1-EVE-P-247 | PS14-A012

The East-Asian Comet 46P/Wirtanen Observation Campaign

Ying LIAO[1#+], Chih Hao HSIA[1], Zhong Yi LIN[2], Tin Long LEI[1], Zhen WANG[3], Jin Zhong LIU[3], Xuan ZHANG[3], Li Na LU[3], Xiliang ZHANG[4], Zhuoxi HUO[5], Myung-Jin KIM[6], Wei-Ling TSENG[7], Wing-Huen IP[2]

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PS14-D1-EVE-P-248 | PS14-A013

67P/Churyumov-Gerasimenko: Properties of Dust and Gas in the Comet's Coma as Seen by OSIRIS and VIRTIS-M Onboard Rosetta

Cecilia TUBIANA[1#+], Giovanna RINALDI[2]

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PS14-D1-EVE-P-249 | PS14-A014

Analysis of the Sparse Light Curves in ZTF: Taxonomy and Shape Distribution

Ting Shuo YEH[1#+], Chan-Kao CHANG[1], Wing-Huen IP[1], Tao LUO[2], Ting Long LEI[2]

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PS14-D1-EVE-P-252 | PS14-A021

On the Dynamical Effects of Pluto-sized Objects in the Primordial Kuiper Belt

I Putu Wira HADIPUTRAWAN[1#+], Wing-Huen IP[1]

[1]National Central University

PS14-D1-EVE-P-253 | PS14-A022

New Detection of Transneptunian Objects with Serendipitous Stellar Occultations and MIOSOTYS

Alain DORESSOUNDIRAM[1#+], Françoise ROQUES[1], Chihyuan LIU[1]

[1]Paris Observatory

PS14-D1-EVE-P-254 | PS14-A023

Spectrophotometric Mapping of Ceres and its Implications

Jian-Yang LI[1#+], Stefano MOTTOLA[2], Andreas NATHUES[3], Julie CASTILLO-ROGEZ[4], Norbert SCHORGHOFER[1], David WILLIAMS[5], Mauro CIARNIELLO[6], Andrea LONGOBARDO[6], Carol RAYMOND[4], Christopher RUSSELL[7]

[1]Planetary Science Institute, [2]German Aerospace Center, [3]Max Planck Institute for Solar System Research, [4]Jet Propulsion Laboratory, California Institute of Technology, [5]Arizona State University, [6]National Institute for Astrophysics, [7]University of California, Los Angeles

PS14-D1-EVE-P-256 | PS14-A030

A Spin-rate Study of the Main-belt Asteroids Using the CNEOST at Xu-Yi Observatory

Ting Shuo YEH[1#+], Bin LI[2], Chan-Kao CHANG[1], Haibin ZHAO[2], Jianghui JI[2], Zhong-Yi LIN[1], Wing-Huen IP[1]

[1]National Central University, [2]Chinese Academy of Sciences

PS15-D1-EVE-P-257 | PS15-A001

The MERTIS Instrument on its Way to Mercury

Jorn HELBERT[1#+], Mario D'AMORE[1], Alessandro MATURILLI[1], Harald HIESINGER[2]

[1]German Aerospace Center, [2]University of Münster

PS16-D1-EVE-P-258 | PS16-A002

Radiative Transfer Simulation Including a Non-LTE Model for JUICE/SWI for Ganymede and Terahertz Explorer-1 for Mars Atmospheric Observation

Takayoshi YAMADA[1#+], Richard LARSSON[2], Ladislav REZAC[2], Paul HARTOGH[2], Takeshi KURODA[1,3], Yasuko KASAI[1]

[1]National Institute of Information and Communications Technology, [2]Max Planck Institute for Solar System Research, [3]Tohoku University

PS16-D1-EVE-P-259 | PS16-A003

Development of Calibration System of Terahertz Explorer-1 for Mars Atmospheric Observation

Yuki UCHIYAMA[1,2#+], Takayoshi YAMADA[1], Shigeru SATO[1], Toshiyuki NISHIBORI[3], Satoshi OCHIAI[1], Richard LARSSON[4], Yukio NAKANO[2], Yasuko KASAI[1]

[1]National Institute of Information and Communications Technology, [2]Tokyo Gakugei University, [3]Japan Aerospace Exploration Agency, [4]Max Planck Institute for Solar System Research

PS16-D1-EVE-P-260 | PS16-A005

The Chirp Transform Spectrometer EQM of JUICE SWI

Paul HARTOGH[1#+]

[1]Max Planck Institute for Solar System Research

PS16-D1-EVE-P-261 | PS16-A013

On the Interpretation of Heliocentric Water Production Rates of Comets

Ladislav REZAC[1#+], David MARSHALL[1], Paul HARTOGH[1], Yuhui ZHAO[2], Nicholas ATTREE[3]

[1]Max Planck Institute for Solar System Research, [2]Chinese Academy of Sciences, [3]University of Stirling

PS16-D1-EVE-P-262 | PS16-A015

Solar System Object Observations at Far-infrared and Sub-millimetre Wavelengths: The Herschel/Spire 194-671 Mm Data

Mark KIDGER[1#+], Cristina ROMERO[2], Miriam RENGEL[1,3]

[1]European Space Astronomy Centre, [2]Technische Universität Berlin, [3]Max Planck Institute for Solar System Research

PS16-D1-EVE-P-263 | PS16-A016

Ground-based Observations of Mesospheric Water Vapour Above Kiruna, Sweden

Richard LARSSON[1#+], Paul HARTOGH[1], Borys DABROWSKI[1], Uwe RAFFALSKI[2]

[1]Max Planck Institute for Solar System Research, [2]Institute of Space Physics

PS16-D1-EVE-P-264 | PS16-A017

Investigating Physical and Chemical Mechanisms of Planetary Atmospheres: A Project Characterizing Planetary Atmospheres Inside and Outside Our Solar System

Miriam RENGEL[1,2#+], Ansgar REINERS[3], Denis SHULYAK[1], Fei YANG[3], Jessica KHAIMOVA[3]

[1]Max Planck Institute for Solar System Research, [2]European Space Astronomy Centre, [3]Georg-August-Universität Göttingen

PS16-D1-EVE-P-265 | PS16-A022

Chemical Composition of the Prospective Exosphere of Europa

Chien-Hsun LI[1#+], Yi-Jehng KUAN[2], Wei-Ling TSENG[2], Yo-Ling CHUANG[2], Hsiang-Wen HSU[3]

[1]National Taiwan University, [2]National Taiwan Normal University, [3]University of Colorado Boulder

PS16-D1-EVE-P-266 | PS16-A023

ACA Observations of Ceres' Molecular Exosphere

Chia-Cheng CHIANG[1#+], Yi-Jehng KUAN[1], Yo-Ling CHUANG[1]

[1]National Taiwan Normal University

PS18-D1-EVE-P-267 | PS18-A003

The Study for Designing the Venus Future Mission of Radio Occultation Measurement by Small Satellites

Yukako KIKUCHI[1+], Norihiko SUGIMOTO[2#], Asako HOSONO[3], Mirai ABE[2], Hiroki ANDO[4], Masahiro TAKAGI[4], Itziar GARATE LOPEZ[5], Sebastien LEBONNOIS[6], Chi AO[7]

[1]Yokohama Futaba High School, [2]Keio University, [3]Toshimagaoka Women High School, [4]Kyoto Sangyo University, [5]Euskal Herriko Unibertsitatea, [6]Sorbonne Universite, [7]Jet Propulsion Laboratory, California Institute of Technology

PS18-D1-EVE-P-268 | PS18-A006

Cause of Magnetic Anomalies on the Southern Martian Hemisphere

Chuxin CHEN[1#+]

[1]University of Science and Technology of China

PS18-D1-EVE-P-269 | PS18-A007

Akatsuki's IR2 Nightside Photometry Restoration by Deconvolution

Choon Wei VUN[1#+], Takehiko SATOH[2], Takao SATO[2], Takeshi HORINOUCHI[3], Javier PERALTA[2], Kevin MCGOULDRICK[4]

[1]SOKENDAI, [2]Japan Aerospace Exploration Agency, [3]Hokkaido University, [4]University of Colorado Boulder

PS18-D1-EVE-P-270 | PS18-A008

Venusian Cloud Physics Investigated by a General Circulation Model

Hiroki ANDO[1#+], Masahiro TAKAGI[1], Norihiko SUGIMOTO[2], Hideo SAGAWA[1], Yoshihisa MATSUDA[3]

[1]Kyoto Sangyo University, [2]Keio University, [3]Tokyo Gakugei University

PS18-D1-EVE-P-271 | PS18-A009

Spectroscopic and Imaging Observation of the Venus Atmosphere by a Circumpolar Stratospheric Telescope FUJIN-2

Yukiko SHIRAFUJI[1#+], Makoto TAGUCHI[1]

[1]Rikkyo University

PS18-D1-EVE-P-272 | PS18-A010

Numerical Simulation of Dust Lifting Within a Steady State Dust Devil

Shefali UTTAM[1#+], Varun SHEEL[1], Sanjay MISHRA[1]

[1]Physical Research Laboratory

PS18-D1-EVE-P-273 | PS18-A016

Improving the Accuracy of the Martian Ephemeris Short Term Prediction

Peijia LI[1#+], Shan QUAN[1], Yong HUANG[1]

[1]Chinese Academy of Sciences

PS18-D1-EVE-P-274 | PS18-A019

The Uncooled Microbolometer Camera Newly Developed to Detect Fine Horizontal Brightness Temperature Structures at the Cloud-top Level of Venus

Tetsuya FUKUHARA[1#+], Makoto TAGUCHI[1], Takeshi IMAMURA[2], Sanjay S LIMAYE[3]

[1]Rikkyo University, [2]The University of Tokyo, [3]University of Wisconsin

PS18-D1-EVE-P-275 | PS18-A020

The Global Variation of Venus Cloud Obtained from IR1 Camera Onboard Akatsuki

Seiko TAKAGI[1#+], Naomoto IWAGAMI[2]

[1]Hokkaido University, [2]none

PS18-D1-EVE-P-276 | PS18-A022

Formation of the Y Feature at the Venusian Cloud Top by Planetary-scale Waves and the Mean Circulation: Analysis of Venus Express VMC Images

Yusuke NARA[1#+], Takeshi IMAMURA[1], Hiroki KASHIMURA[2], Manabu YAMADA[3], Shin-Ya MURAKAMI[4], Kazunori OGOHARA[5], Naoki SATO[6], Toru KOUYAMA[7], Masahiro TAKAGI[8]

[1]The University of Tokyo, [2]Kobe University, [3]Chiba Institute of Technology, [4]Akatsuki, [5]The University of Shiga Prefecture, [6]Tokyo Gakugei University, [7]National Institute of Advanced Industrial Science and Technology, [8]Kyoto Sangyo University

PS18-D1-EVE-P-277 | PS18-A029

Effects of Orographic Gravity Waves on the Venus Atmospheric Super-rotation

Anna SUZUKI[1#+], Masahiro TAKAGI[1], Yasumitsu MAEJIMA[2], Hiroki ANDO[1], Norihiko SUGIMOTO[3], Yoshihisa MATSUDA[4]

[1]Kyoto Sangyo University, [2]RIKEN Advanced Institute for Computational Science, [3]Keio University, [4]Tokyo Gakugei University

PS18-D1-EVE-P-278 | PS18-A031

A Spatio-temporal Study of the Neutral and Ion Species in the Martian Atmosphere

Ashimananda MODAK[1#+], Varun SHEEL[1]

[1]Physical Research Laboratory

PS20-D1-EVE-P-279 | PS20-A007

Titan's Atmospheric Structure and its Evolution Through Time

Athena COUSTENIS[1#+], Donald JENNINGS[2], Richard ACHTERBERG[3], Georgios BAMPASIDIS[4], Panayiotis LAVVAS[5], Conor NIXON[2], F. Michael FLASAR[2]

[1]Paris Observatory/ French National Center for Scientific Research/ PSL Research University, [2]NASA Goddard Space Flight Center, [3]University of Maryland, [4]National and Kapodistrian University of Athens, [5]Universite Reims Champargne-Ardennes

PS20-D1-EVE-P-280 | PS20-A009

Partial Dissociation of Clathrate Hydrates in the Presence of Ammonia: A Possible Mechanism for Replenishing Titan's Atmospheric Methane

Mathieu CHOUKROUN[1#+], Tuan VU[1], Helen MAYNARD-CASELY[2], Christophe SOTIN[1], Ashley DAVIES[1], Claire PETUYA[1]

[1]Jet Propulsion Laboratory, California Institute of Technology, [2]Australian Nuclear Science and Technology Organisation

PS20-D1-EVE-P-281 | PS20-A010

Stability of the Subsurface Ocean of Pluto

Jun KIMURA[1#+], Shunichi KAMATA[2]

[1]Osaka University, [2]Hokkaido University

Day 02

30 Jul, Tue

Day 02 - 30 Jul 2019, Tuesday
Program Overview

Time / Room	AM1	AM2	LUNCH	PM1	PM2
	08:30 - 10:30	**11:00 - 12:30**	**12:30 – 13:30**	**13:30 - 15:30**	**16:00 - 18:00**
MR308	AS05 *p.M47*	AS08 *p.M55*		AS06 *p.M60*	AS06 *p.M67*
MR304	AS26 *p.M48*	AS25 *p.M55*		AS30 *p.M61*	AS30 *p.M68*
MR303	AS36 *p.M48*	AS36 *p.M55*		AS44 *p.M61*	AS44 *p.M68*
MR330	SE19 *p.M49*	SE19 *p.M56*		SE01 *p.M62*	SE01 *p.M69*
MR329	SE12 *p.M49*	SE12 *p.M56*	SE Meeting	SE12; SE16 *p.M62*	SE16 *p.M69*
MR328	SE10 *p.M50*	SE06 *p.M56*		SE06 *p.M63*	
MR310	PS08; PS15 *p.M50*	PS06 *p.M57*	PS Meeting	PS18 *p.M63*	PS18 *p.M70*
MR311	PS07 *p.M51*	PS07 *p.M57*		PS02 *p.M64*	PS11 *p.M70*
MR327	AS09 *p.M51*	AS12 *p.M58*		AS12 *p.M65*	AS18 *p.M71*
MR302	OS15 *p.M52*	OS11 *p.M58*	OS Meeting	OS15 *p.M65*	OS15 *p.M71*
MR300	BG03; BG04 *p.M53*	BG05 *p.M59*	BG Meeting	WS01 *p.F22*	
MR309	AS46 *p.M53*	AS17 *p.M59*	AS Meeting	AS17 *p.M66*	AS17 *p.M72*
MR323	IG20 *p.M54*	IG04 *p.M60*	IG Meeting	IG04 *p.M66*	IG04 *p.M72*
Nicoll 1	OS18 *p.M52*	OS18 *p.M59*		OS05 *p.M66*	OS05; OS12 *p.M72*
Nicoll 2	ST21 *p.M47*	KL-ST *p.F18* DL-ST *p.F17*	ST Meeting		
Nicoll 3	HS01 *p.M54*	KL-HS *p.F14* DL-HS *p.F13*	HS Meeting	SS01 *p.M67*	WS02 *p.F23*
EXHIBITION HALL				HS Posters *p.M74* ST Posters *p.M82*	

Sessions & Conveners

* Main Convener

AS05-Mesoscale Meteorology and High-impact Weather
*Kevin CHEUNG *Macquarie University*, Tieh-Yong KOH *Singapore University of Social Sciences*, Ryo OYAMA *Japan Meteorological Agency*, Chee-Kiat TEO *Centre for Climate Research Singapore*, Cheng-Ku YU *National Taiwan University*

AS06-Convection and Its Effects on Weather and Climate
*Ji NIE *Peking University*, Chunsong LU *Nanjing University of Information Science & Technology*, Jonathon WRIGHT *Tsinghua University*, Jia-Yuh YU *National Central University*

AS08-The Science and Prediciton of Heavy Precipitation and Floods
*Yali LUO *Chinese Academy of Meteorological Sciences*, Johnny CHAN *City University of Hong Kong*, Huiling YUAN *Nanjing University*

AS09-Application of Cloud-resolving Model Simulations for Studying Cloud-related Processes in Climate
*Masaki SATOH *The University of Tokyo*, Pay-Liam LIN *National Central University*, Chung-Hsiung SUI *National Taiwan University*, Wei-Kuo TAO *NASA Goddard Space Flight Center*, Qinghong ZHANG *Peking University*

AS12-12th Sasaki Symposium on Data Assimilation for Atmospheric, Oceanic, and Hydrologic Applications
*Seon Ki PARK *Ewha Womans University*, Ibrahim HOTEIT *King Abdullah University of Science and Technology*, Xiang-Yu HUANG *Centre for Climate Research Singapore*, Takemasa MIYOSHI *RIKEN Center for Computational Science*, Liang XU *Naval Research Laboratory*

AS17-Atmospheric Chemistry in Highly Polluted Environments: Emissions, Fates, and Impacts
*Jianlin HU *Nanjing University of Information Science & Technology*, Sri Harsha KOTA *India Institute of Technology Delhi*, Qi YING *Texas A&M University*, Hongliang ZHANG *Louisiana State University*

AS18-Organic Aerosols in the Atmosphere
*Hai GUO *The Hong Kong Polytechnic University*, Xiaopu LYU *The Hong Kong Polytechnic University*

AS25-Application of Satellite Data to Weather Prediction
*Kozo OKAMOTO *Japan Meteorological Agency*, Myoung Hwan AHN *Ewha Womans University*, Wei HAN *Numerical Weather Prediction Center of Chinese Meteorological Administration*, Jun LI *University of Wisconsin-Madison*, Chian-Yi LIU *National Central University*

AS26-Regional Climate Downscaling and Cordex: Challenges and Prospects
*Dong-Hyun CHA *Ulsan National Institute of Science and Technology*, Koji DAIRAKU *National Research Institute for Earth Science and Disaster Resilience*, Jason EVANS *University of New South Wales*, Xuejie GAO *Chinese Academy of Sciences*, Shuyu WANG *Nanjing University*

AS30-Extreme Weather Resiliency: Prediction and Response Strategies
*Pay-Liam LIN *National Central University*, Everette JOSEPH *University at Albany - State University of New York*

AS36-Subseasonal to Seasonal Forecasts and Applications
*Thea TURKINGTON *Centre for Climate Research Singapore*, Raizan RAHMAT *Centre for Climate Research Singapore*, Andrew W. ROBERTSON *Columbia University*

AS44- Advances in Remote Sensing and Modeling of Fires and Tropospheric Composition in Asia
*Jun WANG *The University of Iowa*, Liangfu CHEN *Chinese Academy of Sciences*, Richard ECKMAN *National Aeronautics and Space Administration*, Rokjin J. PARK *Seoul National University*

AS46-Impacts of Land-atmosphere Interactions on the Climate and the Hydrological Cycle
*Eun-Soon IM *The Hong Kong University of Science and Technology*, Joong-Bae AHN *Pusan National University*, Claudio CASSARDO *University of Torino*, Min-Hui LO *National Taiwan University*, Qiuhong TANG *Chinese Academy of Sciences*

BG03-Atmosphere-Ocean-Biota Interactions That Influence Global Climate: Role Of Marine Bacteria, Phytoplankton And Macroalgae In A Changing Environment
*Siew Moi PHANG *University of Malaya*, Punyasloke BHADURY *Indian Institute of Science Education and Research Kolkata*, Gill MALIN *University of East Anglia*

BG04-Remote Sensing of Essential Climate Variables and Its Applications
*Wei YANG *Chiba University*, Xin CAO *Beijing Normal University*, Hideki KOBAYASHI *Japan Agency for Marine-Earth Science and Technology*, Xiaolin ZHU *The Hong Kong Polytechnic University*

BG05-Understanding Biogeochemical Cycles in the Earth System: from Local to Regional and Global Scales
*Long CAO *Zhejiang University*, Atul JAIN *University of Illinois at Urbana-Champaign*, Xiujun WANG *Beijing Normal University*, Yongfu XU *Chinese Academy of Sciences*

HS01-Risk Assessment Related to Hydrological, Climatic, and Environmental Changes
*Tsang-Jung CHANG *National Taiwan University*, Howard H-C HO *National Taiwan University*, Hwa-Lung YU *National Taiwan University*

IG04-Natural Hazards and Disaster Risk: Current and Historical Perspectives
*Vena Pearl BONGOLAN *University of the Philippines Diliman*, Adam SWITZER *Nanyang Technological University*, James TERRY *Zayed University*, Fiona WILLIAMSON *Singapore Management University*

IG20-Big Data, Machine Learning, and Data Analytics in Geosciences
*Sanat Kumar DAS *Bose Institute*, Uma DAS *Indian Institute of Information Technology Kalyani*, Chen Jeih PAN *National Central University*

OS05-Coastal and Estuarine Processes
*Atsushi FUJIMURA *University of Guam*, Sung Yong KIM *Korea Advanced Institute of Science and Technology*

OS11-Ocean Circulation and Air-sea Interaction Over the Maritime Continent and Surrounding Waters
*Lei ZHOU *Shanghai Jiao Tong University*, R. Dwi SUSANTO *University of Maryland*, Dongxiao WANG *Chinese Academy of Sciences*, Kunio YONEYAMA *Japan Agency for Marine-Earth Science and Technology*, Wen ZHOU *City University of Hong Kong*

OS12-Dynamic Coasts, Past, Present, Future
*Serena LEE *Griffith University*, Charles LEMCKERT *University of Canberra*

OS15-Regional Oceanic Numerical Modeling and Observations
*Changming DONG *Nanjing University of Information Science & Technology*, Sergey PRANTS *Pacific Oceanological Institute*, Yusuke UCHIYAMA *Kobe University*

OS18-Coastal Hazards: Impacts of Tropical Storms and Tsunamis
*Philip Li-Fan LIU *National University of Singapore,* Linlin LI *National University of Singapore,* Shie-Yui LIONG *National University of Singapore,* Nobuhito MORI *Kyoto University,* Xiping YU *Tsinghua University*

PS02-Plasma - Surface Interactions with Airless Bodies in the Solar System
*Jan DECA *University of Colorado Boulder,* Charles LUE *Swedish Institute of Space Physics,* Li Hsia YEO *University of Colorado Boulder*

PS06-Planetary Shape, Gravity, Rotation, and Interior Structures from Observations and Models
*Juergen OBERST *German Aerospace Center (DLR),* Koji MATSUMOTO *National Astronomical Observatory of Japan,* Jinsong PING *Chinese Academy of Sciences,* Alexander STARK *German Aerospace Center (DLR)*

PS07-Magnetospheres, Atmospheres, Exospheres of Outer Planets and Their Satellites
*Norbert KRUPP *Max Planck Institute for Solar System Research,* Sushil ATREYA *University of Michigan,* Scott BOLTON *Southwest Research Institute,* Scott EDGINGTON *Jet Propulsion Laboratory, California Institute of Technology,* Linda SPILKER *Jet Propulsion Laboratory, California Institute of Technology*

PS08-Open Session on Lunar Science, Exploration and Utilisation
*Bernard FOING *European Space Agency,* Wing-Huen IP *National Central University*

PS11-Exoplanets: Observations, Theories, and Modeling
*Jun YANG *Peking University,* Cheng LI *California Institute of Technology,* Xi ZHANG *University of California Santa Cruz*

PS15-Science and Exploration of Mercury and the Moon - a Comparative View
*Jorn HELBERT *German Aerospace Center,* Gordon CHIN *NASA Goddard Space Flight Center,* Kyeong Ja KIM *Korea Institute of Geoscience and Mineral Resources,* Makiko OHTAKE *Japan Aerospace Exploration Agency,* Long XIAO *China University of Geosciences*

PS18-Science and Exploration of Mars and Venus
*Varun SHEEL *Physical Research Laboratory,* Takeshi IMAMURA *The University of Tokyo,* Shuanggen JIN *Nanjing University of Information Science & Technology*

ST21-Use of Nano/microsatellites for Solar-terrestrial and Planetary Studies
*Kyoung Wook MIN *Korea Advanced Institute of Science and Technology,* Alfred CHEN *National Cheng Kung University,* Mohammad Tariqul ISLAM *Universiti Kebangsaan Malaysia,* Devi MINAKSHI *Gauhati University,* Koichiro OYAMA *National Cheng Kung University*

SE01-Paleomagnetism and Rock Magnetism Applied to Solving Geological, Geophysical, and Environmental Problems
*Martin CHADIMA *Advanced Geoscience Instruments Company,* Yongxin PAN *Chinese Academy of Sciences,* Andrew ROBERTS *Australian National University,* Yuhji YAMAMOTO *Kochi University,* Xixi ZHAO *University of California Santa Cruz*

SE06-Tectonics, Minerals, Metals and Gems Resources of Asia Oceania Region
*Khin ZAW *University of Tasmania,* Chakkaphan SUTTHIRAT *Chulalongkorn University,* Hai Thanh TRAN *Hanoi University of Mining and Geology*

SE10-Dynamic System of Earth: Interactions from Surface to Core
*Takashi NAKAGAWA *The University of Hong Kong,* Weijia KUANG *NASA Goddard Space Flight Center,* Xiaodong SONG *University of Illinois Urbana-Champaign,* Daoyuan SUN *University of Science and Technology of China,* Eh TAN *Academia Sinica*

SE12-From Earthquakes and Fault Ruptures to Seismic Hazards of Southeast and East Asia
*Yu WANG *National Taiwan University,* Chung-Han CHAN *Nanyang Technological University,* Noelynna RAMOS *University of the Philippines Diliman,* Xuhua SHI *Zhejiang University,* Myo THANT *University of Yangon*

SE16-Integrating Our Understanding of the 2018 Mw 7.5 Palu Earthquakes and Its Tsunami
*Yu WANG *National Taiwan University,* Mudrik DARYONO *Indonesian Institute of Sciences - LIPI,* Philip Li-Fan LIU *National University of Singapore,* Qiang QIU *University of Southern California,* Shengji WEI *Nanyang Technological University*

SE19-Multiscale Seismic Modelling and Imaging
*Ping TONG *Nanyang Technological University,* Lihui CHAI *Sun Yat-Sen University,* Shaolin LIU *Nanyang Technological University,* Guojie SONG *Southwest Petroleum University,* Xu YANG *University of California, Santa Barbara*

SS01-Satellite Observations for Tropical Cyclone Research
*Tsengdar LEE *NASA,* Jack KAYE *NASA Earth Science Division,* Yukari TAKAYABU *The University of Tokyo*

AS05 / Mesoscale Meteorology and High-impact Weather

Tue - 30 Jul | MR308

Time 08:30-10:30
Chair(s) Tieh-Yong KOH, *Singapore University of Social Sciences*

AS05-D2-AM1-308-001 | AS05-A004

The Impact of Dynamical Changes on Atmospheric Rivers over Western North America
Yaheng TAN[1+], Francis ZWIERS[2#], Song YANG[1], Chao LI[3,4], Kaiqiang DENG[1]
[1]Sun Yat-sen University, [2]University of Victoria, [3]Ministry of Education, [4]East China Normal University

AS05-D2-AM1-308-002 | AS05-A007 (Invited)

Analysis of Tornado-like Vortices Using Phased Array Weather Radar and Deep Learning
Toru ADACHI[1#+], Naoki ISHITSU[2,3], Kenichi KUSUNOKI[3], Hanako INOUE[3], Ken-ichiro ARAI[2,3], Chusei FUJIWARA[4], Hiroto SUZUKI[4]
[1]Meteorological Research Institute, [2]Alpha Denshi, [3]Japan Meteorological Agency, [4]East Japan Railway Company

AS05-D2-AM1-308-003 | AS05-A017 (Invited)

Remote Triggering Effect of a Tropical Cyclone in the Bay of Bengal on a Heavy Rainfall Event in Subtropical East Asia
Huang-Hsiung HSU[1#+], Sho ARAKANE[1]
[1]Academia Sinica

AS05-D2-AM1-308-004 | AS05-A013

The Degree of Prevalence of Similarity Between Outer Tropical Cyclone Rainbands and Squall Lines
Cheng-Ku YU[1#+], Che-Yu LIN[1], Lin-Wen CHENG[1], Jhang-Shuo LUO[1], Chun-Chieh WU[1], Ying CHEN[1]
[1]National Taiwan University

AS05-D2-AM1-308-005 | AS05-A029 (Invited)

Does Lower-stratospheric Shear Influence the Mesoscale Organization of Convection?
Todd LANE[1,2#+]
[1]The University of Melbourne, [2]ARC Centre of Excellence for Climate Extremes

AS05-D2-AM1-308-006 | AS05-A019

Hot Weather Characteristics in China
Qinglan LI[1#+], Tianyu ZHU[1], Pengcheng XU[1], Guangxin LI[1], Dian HUANG[1]
[1]Chinese Academy of Sciences

AS05-D2-AM1-308-007 | AS05-A028

Comparison of Simulation Performances in 2016 and 2018 South Korea Heat Waves
Dong Hyuck YOON[1+], Dong-Hyun CHA[1#], Myong-In LEE[1], Ki-Hong MIN[2,3]
[1]Ulsan National Institute of Science and Technology, [2]Kyungpook National University, [3]Purdue University

ST21 / Use of Nano/Microsatellites for Solar-terrestrial and Planetary Studies

Tue - 30 Jul | Nicoll 2

Time 08:30-10:30
Chair(s) Kyoung Wook MIN, *Korea Advanced Institute of Science and Technology*
Koichiro OYAMA, *National Cheng Kung University*

ST21-D2-AM1-Nicoll 2-001 | ST21-A001

How to Inspire International Space Weather Research with Small Missions
Daniel BAKER[1#+], Amal CHANDRAN[1]
[1]University of Colorado Boulder

ST21-D2-AM1-Nicoll 2-002 | ST21-A003 (Invited)

The Snipe Mission for Observing Small Scale Ionospheric and Magnetosphric Plasma Phenonena
Jaejin LEE[1#+]
[1]Korea Astronomy and Space Science Institute

ST21-D2-AM1-Nicoll 2-003 | ST21-A004

Space Weather Measurements Using Spire's Growing Cubesat Constellation
Takayuki YUASA[1#+]
[1]Spire Global

ST21-D2-AM1-Nicoll 2-004 | ST21-A005

The Development of the Dual-band Optical Transient Camera and its Preliminary Results
Alfred CHEN[1#+], Charles LIN[1], Toshinori KUWAHARA[2], Wei-Tai LIU[1], Mike Chih-Chen TSAI[1], Hannah TOMIO[2]
[1]National Cheng Kung University, [2]Tohoku University

ST21-D2-AM1-Nicoll 2-005 | ST21-A019 (Invited)

Preliminary Results of Planetary Observation by the RISESAT Microsatellite
Junichi KURIHARA[1#+], Wing-Huen IP[2], Yukihiro TAKAHASHI[1], Masataka IMAI[3], Toru KOUYAMA[3], Toshinori KUWAHARA[4], Shinya FUJITA[4], Yuji SAKAMOTO[4]
[1]Hokkaido University, [2]National Central University, [3]National Institute of Advanced Industrial Science and Technology, [4]Tohoku University

ST21-D2-AM1-Nicoll 2-006 | ST21-A006

Mesosphere and Ionosphere Plasma Exploration Complex (MIPEX) for In-situ Plasma Measurements in the Ionosphere
Hui-Kuan FANG[1#+], Alfred CHEN[1], Wen-Hao CHEN[1], Ting-Chou WU[1], Ke-Shen LIU[1], Yi-Chen WANG[1]
[1]National Cheng Kung University

ST21-D2-AM1-Nicoll 2-007 | ST21-A015

Need of Constellation of Satellites in Identification of Atmospheric Forcing Dynamics During Successive Clusters of Strong Earthquakes of East-west Pacific Zone : Inputs for EQ Precursive Model
Devi MINAKSHI[1#+], Ananda BARBARA[1], Anna DEPUEVA[2], Koichiro OYAMA[3,4]
[1]Gauhati University, [2]Institute of Terrestrial Magnetism, Ionosphere and Radio Wave Propagation, [3]National Cheng Kung University, [4]Asia Space Environment Research Consortium

ST21-D2-AM1-Nicoll 2-008 | ST21-A010

Energy Calibration of Charged Particle Detector Using Radioactive Isotope Sources
Chanhaeng LEE[1+], Jongho SEON[1#], Sungmin PAK[1], Woohyeong SEOL[1]
[1]Kyung Hee University

AS26 / Regional Climate Downscaling and Cordex: Challenges and Prospects

Tue - 30 Jul | MR304

Time 08:30-10:30
Chair(s) Koji DAIRAKU, *National Research Institute for Earth Science and Disaster Resilience*
Fredolin TANGANG, *National University of Malaysia*

AS26-D2-AM1-304-001 | AS26-A007

Applying Super Resolution Algorithm into Downscaling of AGCM Precipitation Output
Sunmin KIM[1#+], Yasuto TACHIKAWA[1]
[1]Kyoto University

AS26-D2-AM1-304-002 | AS26-A021

Intercomparison of Global Solar Radiation in Regional Climate Models Around Japan
Nobuhiko ENDO[1#+], Motoki NISHIMORI[1]
[1]National Agriculture and Food Research Organization

AS26-D2-AM1-304-003 | AS26-A015 (Invited)

Projected Future Changes of Rainfall in Southeast Asia Based on Multi-model Simulations of CORDEX Southeast Asia
Fredolin TANGANG[1,2#+], Jing Xiang CHUNG[1], Liew JUNENG[1], Supari SUPARI[3], Ester SALIMUN[1], Ahmad Fairudz JAMALUDDIN[1], Abdul Azim AMIRUDIN[1], Mary Angelina JUD[1], Afiqah Bahirah AYOUB[1], Sheau Tieh NGAI[1], Faye Abigail CRUZ[4], Gemma NARISMA[4], Jerasron SANTISIRISOMBOON[2], Thanh NGO-DUC[5], Phan VAN-TAN[5], Patama SINGHRUCK[6], Dodo GUNAWAN[3], Edvin ALDRIAN[7], Ardhasena SOPAHELUWAKAN[3], Nikulin GRIGORY[8], Armelle Reca REMEDIO[9], John MCGREGOR[10], Hongwei YANG[11], Hidetaka SASAKI[12]
[1]National University of Malaysia, [2]Ramkhamhaeng University, [3]Agency for Meteorology, Climatology and Geophysics, [4]Manila Observatory, [5]Vietnam National University, [6]Chulalongkorn University, [7]Agency for the Assessment and Application of Technology, [8]Swedish Hydrological and Meteorological Institute (SMHI), [9]Climate Service Center (GERICS), [10]Commonwealth Scientific and Industrial Research Organisation, [11]APEC Climate Center, [12]Japan Meteorological Agency

AS26-D2-AM1-304-004 | AS26-A018

Future Precipitation Extreme Changes over Southeast Asia Based on Bias-adjusted CORDEX-SEA Multi-models Simulations
Ju Neng LIEW[1#+], Sheau Tieh NGAI[1], Fredolin TANGANG[1,2]
[1]National University of Malaysia, [2]Ramkhamhaeng University

AS26-D2-AM1-304-005 | AS26-A001

High Resolution Climate Downscaling over Singapore
Srivatsan VIJAYARAGHAVAN[1#+], Ngoc Son NGUYEN[1]
[1]National University of Singapore

AS26-D2-AM1-304-006 | AS26-A026

Evaluation and Comparison of Convective-permitting Regional Climate Models in the Western Maritime Continent
Jianhua QIAN[1#+], Srivatsan VIJAYARAGHAVAN[2], Ngoc Son NGUYEN[2], Jina HUR[2], Shie-Yui LIONG[2], Venkatraman PRASANNA[1], Muhammad Eeqmal HASSIM[3], Bertrand TIMBAL[4]
[1]Meteorological Service Singapore, [2]National University of Singapore, [3]Centre for Climate Research Singapore, Meteorological Service Singapore, [4]National Environment Agency

AS26-D2-AM1-304-007 | AS26-A022

Putting Distillation into Practice: Co-developing Climate Services to Build Resilience Across South Asia
Katy RICHARDSON[1#+], Joseph DARON[1], Rachel MCINNES[1], Nicola GOLDING[1], Cathryn FOX[1], Benjamin HARRISON[1], Bernd EGGEN[1], Tamara JANES[1], David CORBELLI[1], Maxine SHIELDS[1]
[1]Met Office

AS26-D2-AM1-304-008 | AS26-A017

Study of Atmospheric Variability in the Amundsen Sea Embayment, West Antarctica Using Satellite Data and Regional Climate Model
Pranab DEB[1#+], Andrew ORR[2]
[1]Indian Institute of Technology Kharagpur, [2]British Antarctic Survey

AS36 / Subseasonal to Seasonal Forecasts and Applications

Tue - 30 Jul | MR303

Time 08:30-10:30
Chair(s) Thea TURKINGTON, *Centre for Climate Research Singapore*
Raizan RAHMAT, *Centre for Climate Research Singapore*

AS36-D2-AM1-303-001 | AS36-A015

The WWRP/WCRP Sub-seasonal to Seasonal Prediction Project (S2S): Highlights from Phase I and Plans for Phase II
Andrew W. ROBERTSON[1#+], Frederic VITART[2]
[1]Columbia University, [2]European Centre for Medium-Range Weather Forecasts

AS36-D2-AM1-303-002 | AS36-A019

Week 3-4 Predictability over South and East Asia Assessed from Two Operational Ensemble Prediction Systems
Lei WANG[1#+], Andrew W. ROBERTSON[2]
[1]Fudan University, [2]Columbia University

AS36-D2-AM1-303-003 | AS36-A017

Assessing SST Forecast Skill in the Warm Pool with the S2S Database
Charlotte DEMOTT[1#+], Nicholas KLINGAMAN[2,3], Harry HENDON[4]
[1]Colorado State University, [2]National Centre for Atmospheric Science, [3]University of Reading, [4]Bureau of Meteorology

AS36-D2-AM1-303-004 | AS36-A018

Prediction Skill of the MJO and Sub-seasonal Teleconnections in the NCEP FV3-GEFS 35-day Experiments
Wei LI[1#+], Yuejian ZHU[1], Xiaqiong ZHOU[1], Bing FU[1], Dingchen HOU[1], Hong GUAN[1], Eric SINSKY[1], Xianwu XUE[1]
[1]National Oceanic and Atmospheric Administration

SE19 / Multiscale Seismic Modelling and Imaging

Tue - 30 Jul | MR330

Time 08:30-10:30

Chair(s) Xu YANG, *University of California, Santa Barbara*
Shaolin LIU, *Nanyang Technological University*
Lihui CHAI, *Sun Yat-Sen University*

SE19-D2-AM1-330-001 | SE19-A021

3-D Numerical Simulation of Seismic Ground-motions Based Upon Spectral Element Method Including Finite Fault Effects. Application to the Region of Trieste (NE Italy)
Laetitia FOUNDOTOS[1#+], Abdelkrim AOUDIA[1]
[1]International Centre for Theoretical Physics

SE19-D2-AM1-330-002 | SE19-A018

Finite Difference Method for Fractional Seismic Wave Field Simulation
Xinmin ZHANG[1#+], Guojie SONG[1], Zhiliang WANG[1], Yali CHEN[1]
[1]Southwest Petroleum University

SE19-D2-AM1-330-003 | SE19-A010

S-wave Velocity Structure and Poisson's Ratio of the Lithosphere Beneath NE Tibetan Plateau
Weilai WANG[1#+], Jianping WU[2], Lihua FANG[2], Guijuan LAI[2]
[1]Institute of Geophysics, China Earthquake Administration, [2]China Earthquake Administration

SE19-D2-AM1-330-004 | SE19-A011

Numerical Simulation Study of Seismic Ground Motion on Sedimentary Basins
Yiqiong LI[1#+], Yanxiang YU[1]
[1]China Earthquake Administration

SE19-D2-AM1-330-005 | SE19-A002

Seismic Tomography, Frozen Gaussian Approximation and Deep Learning
Xu YANG[1#+]
[1]University of California, Santa Barbara

SE19-D2-AM1-330-006 | SE19-A005

Slab Morphology Beneath Sumatra Revealed by Regional and Teleseismic Traveltime Tomography
Shaolin LIU[1+], Ping TONG[1#]
[1]Nanyang Technological University

SE19-D2-AM1-330-007 | SE19-A015 (Invited)

Probing the E. Asian Lithosphere with Large Seismic Arrays and Multiple Geophysical Data
Weisen SHEN[1#+]
[1]Stony Brook University

SE19-D2-AM1-330-008 | SE19-A003 (Invited)

Mapping Deep Mantle Flows Using Full Waveform Inversion
Hejun ZHU[1#+]
[1]The University of Texas at Dallas

SE12 / From Earthquakes and Fault Ruptures to Seismic Hazards of Southeast and East Asia

Tue - 30 Jul | MR329

Time 08:30-10:30

Chair(s) Chung-Han CHAN, *Nanyang Technological University*
Xuhua SHI, *Zhejiang University*

SE12-D2-AM1-329-001 | SE12-A014 (Invited)

Probabilistic Seismic Hazard Analysis Based on Three-dimensional Seismotectonic Model in Strong Earthquake Structure Zone
Lifang ZHANG[1#+], Yuejun LYU[1]
[1]China Earthquake Administration

SE12-D2-AM1-329-002 | SE12-A021

Earthquakes in Bay of Bengal and Seismic Hazard in Eastern Coast of India
Abhishek K. RAI[1#+]
[1]Indian Institute of Technology Kharagpur

SE12-D2-AM1-329-003 | SE12-A034

Study on the Relationship of Shear Wave Velocity and Geotechnical Properties of Different Soils of Major Cities in Myanmar for Future Site Specific Seismic Hazard Assessment
Myo THANT[1,2#+], Khin Kyawt Kyawt OO[1], Ei Hmon Nathar MYO[1], Thinzar YADANAR[1], Lamin KO KO[1], Saw Myat MIN[2], Win Pyae HTET[2], Thazin Htet TIN[1], Hiroshi KAWASE[3], Shinichi MATSUSHIMA[3]
[1]University of Yangon, [2]Myanmar Earthquake Committee, [3]Kyoto University

SE12-D2-AM1-329-004 | SE12-A035

Seismic Hazard Function (SHF) Study Off Coast Sources of Sumatra Island: Evaluation SHF of Padang & Bengkulu City
Aris SUWONDO[1,2#+], Wahyu TRIYOSO[1]
[1]Bandung Institute of Technology, [2]Meteorological, Climatological and Geophysical agency

SE12-D2-AM1-329-005 | SE12-A025

Investigations on Performances of Mega-sub Isolation System Under Near-fault Strong Ground Motions
Li XIANGXIU[1#+]
[1]China Earthquake Administration

SE12-D2-AM1-329-006 | SE12-A033 (Invited)

Applications of a Large-N Strong Motion Array Equipped with Low-cost Sensors in the Taiwan Region: P-Alert Web Data Services
Wen-Tzong LIANG[1#+], Yih-Min WU[2], Hsin-Hua LEE[1], Shu-Chen HUANG[3]
[1]Academia Sinica, [2]National Taiwan University, [3]Taiwan Earthquake Research Center

SE12-D2-AM1-329-007 | SE12-A005

Seismic Damage to Ancient Monuments in Chiang Saen (Northern Thailand): Implication for Historical Earthquakes in Golden Triangle Area
Teraphan ORNTHAMMARATH[1#+]
[1]Mahidol University

SE10 / Dynamic System of Earth: Interactions from Surface to Core

Tue - 30 Jul | MR328

Time 08:30-10:30

Chair(s) Daoyuan SUN, *University of Science and Technology of China*
Takashi NAKAGAWA, *The University of Hong Kong*

SE10-D2-AM1-328-001 | SE10-A004 (Invited)

Multiscale Topography of Mantle Discontinuities and Implications for Mantle Geodynamics
Sidao NI[1#+], Wenbo WU[2], Han ZHANG[3], Yong ZHOU[4]
[1]Chinese Academy of Sciences, [2]California Institute of Technology, [3]University of New Mexico, [4]Southern University of Science and Technology

SE10-D2-AM1-328-002 | SE10-A008

Interaction Between Volcanisms Inland and the Spreading Center: Example of Galápagos Archipelago
Walid BEN MANSOUR[1,2#+], Guust NOLET[3], Mario RUIZ[4], Juan Carlos A.[1]
[1]Macquarie University, [2]University of Leicester, [3]Géoazur, [4]Instituto Geofisico – Escuela Politecnica Nacional

SE10-D2-AM1-328-003 | SE10-A012

Middle Mantle Heterogeneity Beneath the Okhotsk Sea
Daoyuan SUN[1#+], Ye YUAN[1]
[1]University of Science and Technology of China

SE10-D2-AM1-328-004 | SE10-A001

Viscosity of Lower Mantle Estimated from the Common Diffusivity of Creep and Grain Growth
Atsuro OKAMOTO[1#+], Takehiko HIRAGA[1]
[1]The University of Tokyo

SE10-D2-AM1-328-005 | SE10-A003 (Invited)

Origin of the D" Discontinuity: Implication from High-pressure Experiments
Zhu MAO[1#+]
[1]University of Science and Technology of China

SE10-D2-AM1-328-006 | SE10-A005

On Thermal and Compositional Convection of the Earth's Core over 4 Billion Years Assessing with 1-D Time-dependent Global Heat and Mass Balance in Earth's Core
Takashi NAKAGAWA[1#+]
[1]The University of Hong Kong

SE10-D2-AM1-328-007 | SE10-A006

A Constraint on Shear Velocity at the Top of Inner Core from PKIIKP/PKIKP Amplitude Ratios at Antipodal Distances
Wenshuang WANG[1], Xiaodong SONG[1,2#+]
[1]Wuhan University, [2]University of Illinois Urbana-Champaign

SE10-D2-AM1-328-008 | SE10-A013

Length of Day Analysis, 6-year Signal and Edge Effects
Leonid ZOTOV[1#+]
[1]National Research University Higher School of Economics

PS08 / Open Session on Lunar Science, Exploration and Utilisation
PS15 / Science and Exploration of Mercury and the Moon - a Comparative View

Tue - 30 Jul | MR310

Time 08:30-10:30

Chair(s) Bernard FOING, *European Space Agency*
Wing-Huen IP, *National Central University*
Kyeong Ja KIM, *Korea Institute of Geoscience and Mineral Resources*

PS08-D2-AM1-310-001 | PS08-A002

The Science Mission of the Space IL Lunar Lander
Chris RUSSELL[1#+], Ian GARRICK-BETHELL[2,3], James HEAD[4], Oded AHARONSON[5], Benjamin WEISS[6], Mark WIECZOREK[7], Asaf GROSZ[8]
[1]University of California, Los Angeles, [2]University of California, Santa Cruz, [3]Kyung Hee University, [4]Brown University, [5]Planetary Science Institute, [6]Massachusetts Institute of Technology, [7]Observatoire de la Côte d'Azur, [8]Ben Gurion University

PS08-D2-AM1-310-002 | PS08-A006

Science from the Chandrayaan-2 Mission
Anil BHARDWAJ[1#+]
[1]Physical Research Laboratory

PS08-D2-AM1-310-003 | PS08-A004

Far Ultraviolet Investigation of Cold Spots on the Moon and Implications for Space Weathering Rates on Airless Bodies
Yang LIU[1#+], Elisha JHOTI[2], Tyler POWELL[3], Kurt RETHERFORD[4], Thomas GREATHOUSE[4], Kathleen MANDT[5], Joshua BANDFIELD[6], Jean-Pierre WILLIAMS[3], Joshua CAHILL[5], Amanda HENDRIX[7], Dana HURLEY[5], Ujjwal RAUT[4], Cesare GRAVA[4], G. Randy GLADSTONE[4], Anthony EGAN[4]
[1]National Space Science Center, [2]The University of Edinburgh, [3]University of California, Los Angeles, [4]Southwest Research Institute, [5]The Johns Hopkins University Applied Physics Laboratory, [6]Space Science Institute, [7]Planetary Science Institute

PS08-D2-AM1-310-004 | PS08-A009 (Invited)

Lunar/Martian Holes and Lava Tubes as Resources for Science and Exploration
Junichi HARUYAMA[1#+]
[1]Japan Aerospace Exploration Agency

PS08-D2-AM1-310-005 | PS08-A013

Moon Habitat Science Experiments and Laboratory Concepts: ILEWG/VU Euromoonmars Activities
Bram DE WINTER[1], Anna SITNIKOVA[2], Bernard FOING[1,3], Arlene DINGEMANS[1#+]
[1]Vrije Universiteit Amsterdam, [2]ILEWG Euromoonmars Igluna, [3]European Space Agency

PS08-D2-AM1-310-006 | PS08-A007

"Towards the International Lunar Decade: A Strategy for the World, Europe, Americas and Asia-Oceania"
Vidvuds BELDAVS[1#+]
[1]University of Latvia

PS15-D2-AM1-310-007 | PS15-A005

Crustal Evolution of the Moon and Mercury: The Power of Integrating Geochemical Remote Sensing Techniques for Planetary Geological Investigations
Rachel KLIMA[1#+]
[1]The Johns Hopkins University Applied Physics Laboratory

PS15-D2-AM1-310-008 | PS15-A004

Development Status of Korea Pathfinder Lunar Obiter Gamma-ray Spectrometer

Kyeong Ja KIM[1#+], Yire CHOI[1], Junghun PARK[1], Eung Seok YI[1], Sungsoon LEE[1], Young-Kwang YEON[1], K.B. LEE[2], Yong-Kwon KIM[3], Kilsoon PARK[3], Kyoung Wook MIN[4], Kyungin KANG[4], Jin Yeon CHO[5], Nobuyuki HASEBE[6], Masayuki NAITO[6]

[1]Korea Institute of Geoscience and Mineral Resources, [2]Korea Research Institute of Standards and Science, [3]NuCare, [4]Korea Advanced Institute of Science and Technology, [5]Inha University, [6]Waseda University

PS07 / Magnetospheres, Atmospheres, Exospheres of Outer Planets and Their Satellites

Tue - 30 Jul | MR311

Time 08:30-10:30

Chair(s) Norbert KRUPP, *Max Planck Institute for Solar System Research*

PS07-D2-AM1-311-001 | PS07-A003 (Invited)

Jupiter's Lighting: New Perspectives from Juno's Stellar Reference Unit

Heidi BECKER[1#+], Martin BRENNAN[1], James ALEXANDER[1], Alexandre GUILLAUME[1], Shannon BROWN[1], Andrew INGERSOLL[2], Candice HANSEN[3], Masafumi IMAI[4], Ivana KOLMASOVA[5,6], William KURTH[4], Michael JANSSEN[1], Steven LEVIN[1], John CONNERNEY[7]

[1]Jet Propulsion Laboratory, California Institute of Technology, [2]Geological and Planetary Sciences, California Institute of Technology, [3]Planetary Science Institute, [4]The University of Iowa, [5]Czech Academy of Sciences, [6]Charles University, [7]NASA Goddard Space Flight Center

PS07-D2-AM1-311-002 | PS07-A010 (Invited)

ENA Imaging of the Jovian Moons-magnetosphere Interactions

Stas BARABASH[1#+], Pontus BRANDT[2], Peter WURZ[3]

[1]Swedish Institute of Space Physics, [2]The Johns Hopkins University Applied Physics Laboratory, [3]University of Bern

PS07-D2-AM1-311-003 | PS07-A015 (Invited)

Ganymede's Interaction with the Jovian Plasma from Hybrid Simulation

Ronan MODOLO[1#+], Ludivine LECLERCQ[2], Gianluca CARNIELLI[3], Francois LEBLANC[4], Marina GALAND[3]

[1]University of Versailles Saint Quentin, [2]University of Virginia, [3]Imperial College, [4]French National Centre for Scientific Research

PS07-D2-AM1-311-004 | PS07-A001 (Invited)

Signatures of Europa's Atmosphere in Galileo Data

Hans HUYBRIGHS[1#+], Elias ROUSSOS[2], Markus FRAENZ[2], Yoshifumi FUTAANA[3], Stas BARABASH[3], Olivier WITASSE[1]

[1]European Space Research and Technology Centre, [2]Max Planck Institute for Solar System Research, [3]Swedish Institute of Space Physics

PS07-D2-AM1-311-005 | PS07-A008

Large-scale Response of Jupiter's Magnetosphere to the External Forcing: 3D Global MHD Simulations

Xianzhe JIA[1#+], Yash SARKANGO[1]

[1]University of Michigan

PS07-D2-AM1-311-006 | PS07-A025

Cassini-Huygens Mission Highlights: From Dream to Reality

Linda SPILKER[1#+], Scott EDGINGTON[1]

[1]Jet Propulsion Laboratory, California Institute of Technology

PS07-D2-AM1-311-007 | PS07-A004

The Consequences of Saturn's "Ring Rain"

James O'DONOGHUE[1,2#+], Luke MOORE[3], J. E. P. CONNERNEY[2,4], Henrik MELIN[5], Tom STALLARD[5], Hsiang-Wen HSU[6], Kevin BAINES[7], Steve MILLER[8]

[1]Japan Aerospace Exploration Agency, [2]NASA Goddard Space Flight Center, [3]Boston University, [4]Space Research Corporation, [5]University of Leicester, [6]University of Colorado Boulder, [7]University of Wisconsin-Madison, [8]University College London

AS09 / Application of Cloud-resolving Model Simulations for Studying Cloud-related Processes in Climate

Tue - 30 Jul | MR327

Time 08:30-10:30

Chair(s) Tomoki MIYAKAWA, *The University of Tokyo*
Masaki SATOH, *The University of Tokyo*

AS09-D2-AM1-327-001 | AS09-A014 (Invited)

Simulating Organized Convection and Extreme Rainfall over Darwin Using High-resolution Cloud-resolving Models

Todd LANE[1,2#+], Martin JUCKER[2,3], Martin BERGEMANN[1,2]

[1]The University of Melbourne, [2]ARC Centre of Excellence for Climate Extremes, [3]The University of New South Wales

AS09-D2-AM1-327-002 | AS09-A008

The Relationship Between the Moist Transport in the Marine Boundary Layer from the Northern South China Sea and Heavy Rainfall over the Taiwan Area During SCSTIMX (2017)

Chuan-Chi TU[1], Yi-Leng CHEN[2#], Pay-Liam LIN[1+], Po-Hsiung LIN[3]

[1]National Central University, [2]University of Hawaii at Manoa, [3]National Taiwan University

AS09-D2-AM1-327-003 | AS09-A007

The Implementation of Framework for Improvement by Vertical Enhancement (FIVE) into Energy Exascale Earth System Model (E3SM)

Hsiang-He LEE[1#+], Peter BOGENSCHUTZ[1], Takanobu YAMAGUCHI[2]

[1]Lawrence Livermore National Laboratory, [2]NOAA Earth System Research Laboratory

AS09-D2-AM1-327-004 | AS09-A013

A Mechanism to Accelerate the Initiation of Warm Rain – Condensation-collision-turbulence Interaction Using Direct Numerical Simulation (DNS)

M.K.(Peter) YAU[1#+]

[1]McGill University

AS09-D2-AM1-327-005 | AS09-A002

WRF-SBM Simulations of Deep Convective Systems Through Aerosol Dynamical Downscaling from Merra Global Aerosol Reanalysis

Wei-Kuo TAO[1#+], Takamichi IGUCHI[2], Toshihisa MATSUI[1,2]

[1]NASA Goddard Space Flight Center, [2]University of Maryland

AS09-D2-AM1-327-006 | AS09-A012

Sensitivity Study of High-cloud Property Responses to Sea Surface Temperature Change Using a Global Nonhydrostatic Model

Tomoki OHNO[1#+], Masaki SATOH[2]

[1]Japan Agency for Marine-Earth Science and Technology, [2]The University of Tokyo

AS09-D2-AM1-327-007 | AS09-A001

A Modeling Study of the Boreal Winter Intraseasonal Variability over Indo-pacific Warm Pool
Chung-Hsiung SUI[1#+]
[1]*National Taiwan University*

AS09-D2-AM1-327-008 | AS09-A015 (Invited)

Pathways to Better Prediction of the Madden–Julian Oscillation: Cloud-resolving and Air-sea Coupling
Shuyi CHEN[1#+]
[1]*University of Washington*

OS15 / Regional Oceanic Numerical Modeling and Observations

Tue - 30 Jul | MR302

Time 08:30-10:30
Chair(s) Changming DONG, *Nanjing University of Information Science & Technology*

OS15-D2-AM1-302-001 | OS15-A031 (Invited)

Observed Mesoscale Eddies in the South China Sea
Guihua WANG[1#+]
[1]*Fudan University*

OS15-D2-AM1-302-002 | OS15-A002

Mixing in the Indonesian Seas
Robin ROBERTSON[1#+]
[1]*Xiamen University Malaysia*

OS15-D2-AM1-302-003 | OS15-A003

Kuroshio-derived Pinch-off Mesoscale Eddies: Generation, Propagation, and Recollision with the Kuroshio
Yusuke UCHIYAMA[1#+], Nobue OKADA[1], Changming DONG[2,3]
[1]*Kobe University,* [2]*Nanjing University of Information Science & Technology,* [3]*University of California, Los Angeles*

OS15-D2-AM1-302-004 | OS15-A004

Biogeochemical Responses to Seasonal Oceanic Variability Along the Kuroshio
Xu ZHANG[1#+], Yusuke UCHIYAMA[1], Yota SUZUE[2], Hidekatsu YAMAZAKI[3]
[1]*Kobe University,* [2]*CTI Engineering Co., Ltd.,* [3]*Tokyo University of Marine Science and Technology*

OS15-D2-AM1-302-005 | OS15-A005

Medium-term Water Mass Exchange and Associated Regional Circulations in the South China Sea
Naru TAKAURA[1#+], Yusuke UCHIYAMA[1], Nizamani ZAFARULLAH[2], Akihiko NAKAYAMA[2]
[1]*Kobe University,* [2]*Universiti Tunku Abdul Rahman*

OS15-D2-AM1-302-006 | OS15-A006

A Flood-induced Sediment and Suspended Radiocesium Transports in the Fukushima Coast Due to Typhoon 201326 Analyzed with a JCOPE2-ROMS Downscaling Model and in Situ Observations
Natsuki TOKUNAGA[1#+], Yusuke UCHIYAMA[1], Daisuke TSUMUNE[2], Masatoshi YAMADA[3], Yutaka TATEDA[2], Yukari ITO[4], Takashi ISHIMARU[4], Yutaka WATANABE[5], Ken IKEHARA[6], Miho FUKUDA[7]
[1]*Kobe University,* [2]*Central Research Institute of Electric Power Industry,* [3]*Hirosaki University,* [4]*Tokyo University of Marine Science and Technology,* [5]*Hokkaido University,* [6]*National Institute of Advanced Industrial Science and Technology,* [7]*National Institute of Radiological Science (NIRS)*

OS15-D2-AM1-302-007 | OS15-A042

Freshwater Impact on Sound Speed Structure of the Bay of Bengal
Sudip JANA[1#+]
[1]*Adamas University*

OS15-D2-AM1-302-008 | OS15-A040

Summertime Upwelling Northwest Off the Hainan Island and its Mechanism
Ai-Jun PAN[1#+], Fangfang KUANG[2], Kai LI[1], Junpeng ZHANG[2]
[1]*Ministry of Natural Resources,* [2]*State Oceanic Administration*

OS18 / Coastal Hazards: Impacts of Tropical Storms and Tsunamis

Tue - 30 Jul | Nicoll 1

Time 08:30-10:30
Chair(s) Xiping YU, *Tsinghua University*

OS18-D2-AM1-Nicoll 1-001 | OS18-A004 (Invited)

A Multi-GPU High-performance Integrated Hydrodynamic Modelling System for Modelling Coastal Flooding from Multiple Sources
Qiuhua LIANG[1#+], Peng WAN[2], Yun XING[2], Xilin XIA[1], Gang WANG[2]
[1]*Loughborough University,* [2]*Hohai University*

OS18-D2-AM1-Nicoll 1-002 | OS18-A002

The Influence of Typhoon Track and Wind Stress on Storm Surge Heights Around Taiwan Coast Using Tide-surge-wave Model
Wei-Che HUANG[1#+], Wen-Cheng LIU[1]
[1]*National United University*

OS18-D2-AM1-Nicoll 1-003 | OS18-A006

Extreme Wave and Storm Surge Assessment Due to Typhoon and Low Pressure Weather System on the Sanin Coast, Japan
Sooyoul KIM[1#+], Keishiro CHIYONOBU[1], Junichi NINOMIYA[2], Sota NAKAJO[3], Tomohiro YASUDA[4], Takao OTA[1]
[1]*Tottori University,* [2]*Kanazawa University,* [3]*Osaka City University,* [4]*Kansai University*

OS18-D2-AM1-Nicoll 1-004 | OS18-A047

Simulating the Typhoon-driven Storm Waves in Manila Bay with Different Wind Field Data
Xionghua ZHONG[1+], Zhaofei REN[1], Zhipeng ZHOU[1], Jun ZHANG[1], Kehua WANG[1], Yabin SUN[1#]
[1]*CCCC-FHDI Engineering Co., Ltd.*

OS18-D2-AM1-Nicoll 1-005 | OS18-A048

Assess the Typhoon-driven Extreme Wave Conditions in Manila Bay Through Numerical Simulation
Kehua WANG[1+], Jun ZHANG[1], Zhaofei REN[1], Xionghua ZHONG[1], Zhipeng ZHOU[1], Yabin SUN[1#]
[1]CCCC-FHDI Engineering Co., Ltd.

OS18-D2-AM1-Nicoll 1-006 | OS18-A008

Typhoon Induced Risk Assessment Model and Maps for the Nearshore Area of Taiwan
Lien-Kwei CHIEN[1#+], Chi-Wen HUANG[1], Ming-Yan TSAI[1], Chih-Hsin CHANG[2], Ting-Yu LIANG[2], Wei-Bo CHEN[2]
[1]National Taiwan Ocean University, [2]National Science and Technology Center for Disaster Reduction

OS18-D2-AM1-Nicoll 1-007 | OS18-A029

Evaluation of Annual Risk by Storm Surge Disaster in Japanese Major Bays
Tomohiro YASUDA[1#+], Shota HIRAI[1]
[1]Kansai University

OS18-D2-AM1-Nicoll 1-008 | OS18-A016

Numerical Modeling of Tsunami Inundation in Urban Area Using Sub-grid Scale Drag Force Model
Nobuki FUKUI[1#+], Nobuhito MORI[1]
[1]Kyoto University

BG03 / Atmosphere-Ocean-Biota Interactions That Influence Global Climate: Role Of Marine Bacteria, Phytoplankton And Macroalgae In A Changing Environment
BG04 / Remote Sensing of Essential Climate Variables and Its Applications

Tue - 30 Jul | MR300

Time 08:30-10:30

Chair(s) Siew Moi PHANG, *University of Malaya*
Gill MALIN, *University of East Anglia*
Punyasloke BHADURY, *Indian Institute of Science Education and Research Kolkata*
Wei YANG, *Chiba University*

BG03-D2-AM1-300-001 | BG03-A006 (Invited)

Dimethyl Sulphide (DMS) and its Dimethylsulphoniopropionate (DMSP) Precursor: Where Are We Now?
Gill MALIN[1#+]
[1]University of East Anglia

BG03-D2-AM1-300-002 | BG03-A001

How Does Temperature Influence Halocarbon Emission by Tropical Seaweeds?
Fiona Seh-Lin KENG[1+], Siew Moi PHANG[1#], Hui-Yin YEONG[1], Noorsaadah ABDUL RAHMAN[1], Emma LEEDHAM ELVIDGE[2], Gill MALIN[2], William STURGES[2]
[1]University of Malaya, [2]University of East Anglia

BG03-D2-AM1-300-003 | BG03-A002

Physiological Properties Of Haloperoxidase Extracted From Sargassum Binderi Sonder Ex J. Agardh (Sargassaceae, Fucales)
Thillai PUNITHA[1+], Siew Moi PHANG[1#], Joon Ching JUAN[1], Saad TAYYAB[1], Noorsaadah ABDUL RAHMAN[1]
[1]University of Malaya

BG03-D2-AM1-300-004 | BG03-A003

RNA-seq Transcriptome Analysis of Heat Stress Response in a Polar Microalga
Phaik-Eem LIM[1#+], Sze Wan POONG[1], Kok-Keong LEE[1], Tun-Wen PAI[2], Chiew-Yen WONG[3], Cing Han YANG[4], Siew Moi PHANG[1]
[1]University of Malaya, [2]National Taipei University of Technology, [3]International Medical University, [4]National Taiwan Ocean University

BG04-D2-AM1-300-005 | BG04-A003

Remote Sensing Estimation of Forest Coverage and Leaf Area Index in the Three Gorges Area
Lixin DONG[1#+]
[1]National Satellites Meteorological Center

BG04-D2-AM1-300-006 | BG04-A005

Calibrate GCC Time Series of Phenology Camera Imagery Based on Histogram Features
Xuehong CHEN[1#+], Qing LI[1], Jin CHEN[1], Xin CAO[1], Xihong CUI[1]
[1]Beijing Normal University

BG04-D2-AM1-300-007 | BG04-A002

A Generic Framework to Produce High Spatiotemporal Resolution NDVI Time-series Data
Ruyin CAO[1#+], Yang CHEN[1]
[1]University of Electronic Science and Technology of China

AS46 / Impacts of Land-atmosphere Interactions on the Climate and the Hydrological Cycle

Tue - 30 Jul | MR309

Time 08:30-10:30

Chair(s) Min-Hui LO, *National Taiwan University*
Eun-Soon IM, *The Hong Kong University of Science and Technology*
Xingcai LIU, *Chinese Academy of Sciences*

AS46-D2-AM1-309-001 | AS46-A018

Simulations of Pheno-physiological Parameters in Regional Vineyards of Piedmont (Italy) with the Crop Model IVINE
Claudio CASSARDO[1#+], Valentina ANDREOLI[1]
[1]University of Torino

AS46-D2-AM1-309-002 | AS46-A020

A Comparison of Statistical Downscaling Techniques for Use in Agricultural Applications
Jyoti SINGH[1#+], Sandeep SAHANY[1], C.T. DHANYA[1]
[1]Indian Institute of Technology Delhi

AS46-D2-AM1-309-003 | AS46-A015

Impacts of Irrigation in Central Asia on Local and Regional Hydroclimatology
Tzu-Ying WU[1#+], Min-Hui LO[1]
[1]National Taiwan University

AS46-D2-AM1-309-004 | AS46-A009

The Driving Processes of Flash Drought in China
Fangxing TIAN[1,2#+], Nicholas KLINGAMAN[1,2], Buwen DONG[2]
[1]National Centre for Atmospheric Science, [2]University of Reading

AS46-D2-AM1-309-005 | AS46-A012

Impact of Preceding Precipitation on Heat Stress in the Low Latitudes
Qiuhong TANG[1#], Xingcai LIU[1+]
[1]Chinese Academy of Sciences

AS46-D2-AM1-309-006 | AS46-A008

Global Soil Moisture-air Temperature Coupling Based on Grace-derived Terrestrial Water Storage
Ajiao CHEN[1#+], Huade GUAN[1], Okke BATELAAN[1], Xinping ZHANG[2], Xinguang HE[2]
[1]Flinders University, [2]Hunan Normal University

AS46-D2-AM1-309-007 | AS46-A004

Impact of Surface Evapotranspiration on Land Precipitation: A Nonlocal Perspective Based on Water Vapor Transport
Jiangfeng WEI[1#+]
[1]Nanjing University of Information Science & Technology

AS46-D2-AM1-309-008 | AS46-A011

High Mountains of Asia: Moisture Sources and Contribution to Summer Monsoon
Moetasim ASHFAQ[1#+], Shahid MEHMOOD[2]
[1]Oak Ridge National Laboratory, [2]Academia Sinica

IG20 / Big Data, Machine Learning, and Data Analytics in Geosciences

Tue - 30 Jul | MR323

Time 08:30-10:30
Chair(s) Uma DAS, *Indian Institute of Information Technology Kalyani*
Sanat Kumar DAS, *Bose Institute*

IG20-D2-AM1-323-001 | IG20-A005

Unsupervised Deep Learning for Multi-modal Object Detection and Tracking
Nicholas LAHAYE[1,2#+], Hesham EL-ASKARY[1], Erik LINSTEAD[1]
[1]Chapman University, [2]Jet Propulsion Laboratory, California Institute of Technology

IG20-D2-AM1-323-002 | IG20-A001

Estimating Spatiotemporal Distribution of People with Detailed Attributes Using Multiple Population Statistics
Toshihiro OSARAGI[1#+]
[1]Tokyo Institute of Technology

IG20-D2-AM1-323-003 | IG20-A002

Analysis of Spatio Temporal Correlation Tendency Between Wind and Solar
Xianxun WANG[1#+], Lihua CHEN[2], Yadong MEI[1]
[1]Wuhan University, [2]Guangxi University

IG20-D2-AM1-323-004 | IG20-A003

Coherency Analysis of Change-points in Regressive Slope in Monthly Temperature Series Between Global Ocean and Land for 1850-2018
Jianmin JIANG[1#+]
[1]China Meteorological Administration Training Centre

IG20-D2-AM1-323-005 | IG20-A011

NASA GES DISC Giovanni - Current and Future
Jennifer WEI[1#+], Mahabaleshwara HEGDE[1,2], Hailang ZHANG[1,2], Christine SMIT[1,2], Long PHAM[1], David MEYER[3]
[1]NASA Goddard Earth Sciences Data and Information Services Center, [2]Adnet Systems, [3]NASA Goddard Space Flight Center

HS01 / Risk Assessment Related to Hydrological, Climatic, and Environmental Changes

Tue - 30 Jul | Nicoll 3

Time 08:30-10:30
Chair(s) Tsang-Jung CHANG, *National Taiwan University*

HS01-D2-AM1-Nicoll 3-001 | HS01-A006

Flood Vulnerability Index in Seoul Metropolitan Area
Nanhee HWANG[1+], Heeseong PARK[2], Gunhui CHUNG[1#]
[1]Hoseo University, [2]Korea Institute of Civil Engineering and Building Technology

HS01-D2-AM1-Nicoll 3-002 | HS01-A019

Development of a One-dimensional Flood Model in Bengawan Solo River Basin
Sapratisto Daim FAKHRIYANTO[1], Idham Riyando MOE[2#+], Aris RINALDI[2], Mohammad FARID[3], Antonius SURYONO[1]
[1]BBWS Bengawan Solo, [2]Ministry of Public Works and Housing, [3]Bandung Institute of Technology

HS01-D2-AM1-Nicoll 3-003 | HS01-A003

Development of Data Assimilation on Urban Flood Inundation Modeling
Hsiang-Lin YU[1#+], Tsang-Jung CHANG[1]
[1]National Taiwan University

HS01-D2-AM1-Nicoll 3-004 | HS01-A008

Categorical Prediction of Heavy Snow Damage Using Random Forest Method
Gunhui CHUNG[1#], Hyeong-Joo LEE[1+], Heeseong PARK[2]
[1]Hoseo University, [2]Korea Institute of Civil Engineering and Building Technology

HS01-D2-AM1-Nicoll 3-005 | HS01-A009

Large-scale and High-resolution Flood Risk Assessment for Thailand
Anongnart ASSTEERAWATT[1#+], Sourima GHOSH[1], Maximiliano SASSI[1]
[1]Risk Management Solutions

HS01-D2-AM1-Nicoll 3-006 | HS01-A014

A Comparison of Hydrological Model for Assessing the Flood Vulnerability in a Tropical Catchment
I Putu SANTIKAYASA[1#+], Muh TAUFIK[1]
[1]IPB University

HS01-D2-AM1-Nicoll 3-007 | HS01-A017

Optimization of Low Impact Development for Flood Mitigation in Urban Area
Howard H-C HO[1#+]
[1]National Taiwan University

HS01-D2-AM1-Nicoll 3-008 | HS01-A018

Low Impact Development Practices on Water Quantity and Quality Using Multi-objective Genetic Algorithm for Overdeveloped City
Howard H-C HO[1#+]
[1]National Taiwan University

AS08 / The Science and Prediciton of Heavy Precipitation and Floods

Tue - 30 Jul | MR308

Time 11:00-12:30
Chair(s) Kalli FURTADO, *Met Office*

AS08-D2-AM2-308-001 | AS08-A018 (Invited)

What is the Main Cause of Diurnal Variation and Nocturnal Peak of Summer Precipitation in Sichuan Basin, China? The Key Role of Boundary Layer Low-level Jet Inertial Oscillations
Ming XUE[1,2#+], Yuhan ZHANG[2], Kefeng ZHU[2], Bowen ZHOU[2]
[1]*The University of Oklahoma,* [2]*Nanjing University*

AS08-D2-AM2-308-002 | AS08-A015 (Invited)

Factors Affecting Simulations of Extreme Rainfall over South China
Kalli FURTADO[1#+], Paul FIELD[1], Adrian HILL[1], Tianjun ZHOU[2]
[1]*Met Office,* [2]*Chinese Academy of Sciences*

AS08-D2-AM2-308-003 | AS08-A005

A Numerical Investigation of Second Rainy-season Rainfall Diurnal Variation in Southeast China: The Role of Land-sea Contrast, Complicated Topography and Atmospheric Environmental Profiles
Yuchun ZHAO[1#+], Yehong WANG[1]
[1]*Xiamen Meteorological Bureau*

AS08-D2-AM2-308-004 | AS08-A011

Roles of Dynamic Forcings and Diabatic Heating in Summer Extreme Precipitation in East China and Southeast United States
Ji NIE[1#+], Bowen FAN[1]
[1]*Peking University*

AS08-D2-AM2-308-005 | AS08-A016

Moisture Sources for Wintertime Extreme Precipitation Events over Three Rainiest Subregions of Tibetan Plateau
Tianpei QIU[1+], Wenyu HUANG[1#]
[1]*Tsinghua University*

AS08-D2-AM2-308-006 | AS08-A025

Multi-scale Analysis of Clustered Cold-season Extreme Precipitation Events in Eastern North America, and Their Modulation by Air Masses
John GYAKUM[1#+]
[1]*McGill University*

AS25 / Application of Satellite Data to Weather Prediction

Tue - 30 Jul | MR304

Time 11:00-12:30
Chair(s) Chian-Yi LIU, *National Central University*

AS25-D2-AM2-304-001 | AS25-A007 (Invited)

GNSS Radio Occultation Observed Using Spire's Cubesat Constellation
Takayuki YUASA[1#+]
[1]*Spire Global*

AS25-D2-AM2-304-002 | AS25-A001 (Invited)

Estimating the Intensity of Tropical Cyclone over the Western North Pacific Using FY-3C/ MWTS-II Data
Miao ZHANG[1#+], Hong QIU[1], Danyu QIN[1]
[1]*National Satellite Meteorological Center*

AS25-D2-AM2-304-003 | AS25-A005

Analysis of Atmospheric Profiles Within Tropical Cyclones Using New-generation Satellite Observations
Ryo OYAMA[1#+], Kozo OKAMOTO[1], Takeshi IRIGUCHI[1], Hidehiko MURATA[1], Hironori FUDEYASU[2], Kevin CHEUNG[3], Kazuhisa TSUBOKI[4]
[1]*Japan Meteorological Agency,* [2]*Yokohama National University,* [3]*Macquarie University,* [4]*Nagoya University*

AS25-D2-AM2-304-004 | AS25-A012

Deep Convective Cloud Properties and Precipitation During Tropical Cyclone Intensity Changes
Jason Pajimola PUNAY[1#+], Chian-Yi LIU[1], Chi-Hao CHIU[1]
[1]*National Central University*

AS25-D2-AM2-304-005 | AS25-A009

Potential Application of Real-time Land Surface Emissivity of ATMS to Numerical Weather Prediction Model
Jisoo KIM[1#+], Myoung-Hwan AHN[1]
[1]*Ewha Womans University*

AS25-D2-AM2-304-006 | AS25-A011

Characteristics of Deep Convections and Associated Dynamic Conditions from Cloudsat over the South China Sea and Maritime Continent
Chian-Yi LIU[1#+], En-Hao CHEN[1]
[1]*National Central University*

AS36 / Subseasonal to Seasonal Forecasts and Applications

Tue - 30 Jul | MR303

Time 11:00-12:30
Chair(s) Andrew W. ROBERTSON, *Columbia University*
Raizan RAHMAT, *Centre for Climate Research Singapore*

AS36-D2-AM2-303-001 | AS36-A020

Stratospheric Initial Conditions Provide Seasonal Predictability of the North Atlantic and Arctic Oscillations
Yu NIE[1#+], Adam SCAIFE[2], Hong-Li REN[1], Ruth COMER[2]
[1]*China Meteorological Administration,* [2]*Met Office*

AS36-D2-AM2-303-002 | AS36-A004

Recent Progress in Indian Ocean Dipole Prediction and Predictability Study
Youmin TANG[1#+]
[1]*Ministry of Natural Resources*

AS36-D2-AM2-303-003 | AS36-A010

The Use of ECMWF Subseasonal-to-Seasonal (S2S) Predictions for Extreme Temperature Forecasts over Singapore and the Surrounding Region: A Comparison of Two Methods
Ryan KANG[1#+], Wee Leng TAN[1], Thea TURKINGTON[1], Raizan RAHMAT[1]
[1]*Centre for Climate Research Singapore*

AS36-D2-AM2-303-004 | AS36-A013

Prediction of the 2018 Summer Heat Waves in Northern Europe and Northeast Asia on S2S Time Scales
Mien-Tze KUEH[1#+], Chuan-Yao LIN[1]
[1]*Academia Sinica*

AS36-D2-AM2-303-005 | AS36-A012

Subseasonal-to-Seasonal Predictions for Southeast Asia (S2S-SEA) Capability Building 4-year Programme – Progress, Case Studies, and Future Developments
Wee Leng TAN[1#+], Thea TURKINGTON[1], Ryan KANG[1], Raizan RAHMAT[1]
[1]*Centre for Climate Research Singapore*

AS36-D2-AM2-303-006 | AS36-A024

Provision of Optimised Seasonal Forecasts by the ARRCC Project
Francis COLLEDGE[1#+], Andrew COLMAN[1], Tamara JANES[1], Rebecca PARFITT[1], Jessica STACEY[1], Katy RICHARDSON[1], David CORBELLI[1], Maxine SHIELDS[1]
[1]*Met Office*

SE19 / Multiscale Seismic Modelling and Imaging

Tue - 30 Jul | MR330

Time 11:00-12:30
Chair(s) Ping TONG, *Nanyang Technological University*

SE19-D2-AM2-330-001 | SE19-A014

A Generalized H-κ Method with Harmonic Corrections on PS and its Crustal Multiples in Receiver Functions
Jiangtao LI[1], Xiaodong SONG[1,2#+], Pan WANG[3], Lupei ZHU[4,5]
[1]*University of Illinois Urbana-Champaign,* [2]*Wuhan University,* [3]*Hohai University,* [4]*Saint Louis University,* [5]*China University of Geosciences*

SE19-D2-AM2-330-002 | SE19-A012 (Invited)

Roads: New Generation of Seismic Sources
Jieyuan NING[1#+]
[1]*Peking University*

SE19-D2-AM2-330-003 | SE19-A017

Applications of Short-period Seismic Nodes for Earthquake Studies and Passive Seismic Imaging: Case Studies from Lombok and Singapore
Karen LYTHGOE[1#+], Muzli MUZLI[1,2], Andri Dian NUGRAHA[3], Rahmat TRIYONO[2], Shengji WEI[1]
[1]*Nanyang Technological University,* [2]*Meteorological, Climatological, and Geophysical Agency,* [3]*Bandung Institute of Technology*

SE19-D2-AM2-330-004 | SE19-A004 (Invited)

Hierarchical Reconstruction of the Elastic Models: Preconditioning with P/S Wave Mode Decoupling
Jiubing CHENG[1#+]
[1]*Tongji University*

SE12 / From Earthquakes and Fault Ruptures to Seismic Hazards of Southeast and East Asia

Tue - 30 Jul | MR329

Time 11:00-12:30
Chair(s) Yu WANG, *National Taiwan University*

SE12-D2-AM2-329-001 | SE12-A011

Earthquake Potential of Active Faults Offshore of Phuket and Phang Nga, Thailand
Passakorn PANANONT[1#+], Haley RAMIREZ[2], Kevin P. FURLONG[2], Sebastian KRASTEL[3]
[1]*Kasetsart University,* [2]*Penn State University,* [3]*Christian-Albrechts-Universität zu Kiel*

SE12-D2-AM2-329-002 | SE12-A003 (Invited)

Uniform Late Quaternary Slip Rate Along the Jinghong Fault, SE of the Eastern Himalayan Syntaxis
Xuhua SHI[1,2#+], Ray WELDON[3], Jing LIU[4], Weerachat WIWEGWIN[5], Zhigang LI[6], Yanxiu SHAO[4], Lewis A. OWEN[7], Elise WELDON[3], Yu WANG[8], Kerry SIEH[2], Paula FIGUEIREDO[7], Daoyang YUAN[4]
[1]*Zhejiang University,* [2]*Nanyang Technological University,* [3]*University of Oregon,* [4]*China Earthquake Administration,* [5]*Department of Mineral Resources,* [6]*Sun Yat-sen University,* [7]*University of Cincinnati,* [8]*National Taiwan University*

SE12-D2-AM2-329-003 | SE12-A032

The Nature of Fault System and Active Tectonic Deformation Along the Northwestern Papun (Mae Ping) Fault, Taungoo District, Bago Region, Myanmar
Soe MIN[1#+], Win NAING[2]
[1]*Taungoo University,* [2]*Dagon University*

SE12-D2-AM2-329-004 | SE12-A024

Active Fault and Paleoseismic Studies of the Sagaing Fault Near Nay Pyi Taw, Central Myanmar
Saw Ngwe KHAING[1,2#+], Tun Tun MIN[3], Kaung SITHU[3], Soe MIN[4], Than SOE[4]
[1]*Hinthada University,* [2]*Myanmar Earthquake Committee,* [3]*University of Yangon,* [4]*Taungoo University*

SE12-D2-AM2-329-005 | SE12-A028

Structural Deformation Related to Active Inversion of the Pyay Fault, Central Myanmar Belt
Lin Thu AUNG[1,2#+], Kyaw Zin OO[3], Kyaw Myo WIN[4], Gregory MOORE[5], Soe Thura TUN[6], Win NAING[7], Kerry SIEH[1]
[1]*Nanyang Technological University,* [2]*Myanmar Geosciences Society,* [3]*MPRL E & P,* [4]*Myanmar Oil and Gas Enterprise,* [5]*University of Hawaii at Manoa,* [6]*Myanmar Earthquake Committee,* [7]*Dagon University*

SE06 / Tectonics, Minerals, Metals and Gems Resources of Asia Oceania Region

Tue - 30 Jul | MR328

Time 11:00-12:30
Chair(s) Khin ZAW, *University of Tasmania*

SE06-D2-AM2-328-001 | SE06-A006

Mineralogical and Petrological Aspects of Igneous and Metamorphic Rocks of Ondan-Kyaukhlebein Area, Thabeikkyin and Mogok Townships, Mandalay Region
Myo MIN[1#+], Thu Zar AUNG[2]
[1]*Dagon University,* [2]*Macle Gem Trade Laboratory*

SE06-D2-AM2-328-002 | SE06-A022

Gemological Characteristics of Legyi Danburite in Momeik Area: Mogok Metamorphic Belt, Myanmar
Khaing Nyein HTAY[1#+], Lin Thu AUNG[2,3], Khin ZAW[4], Wai La WIN[1]
[1]Gemological Institute of Myanmar, [2]Nanyang Technological University, [3]Myanmar Geosciences Society, [4]University of Tasmania

SE06-D2-AM2-328-003 | SE06-A027 (Invited)

Diamond: Landak Region, Kalimantan, Indonesia
Thyesun TAY[1#+]
[1]Far East Gemological Laboratory

SE06-D2-AM2-328-004 | SE06-A017

Age, Setting and Geology of Ayer Chawan Facies, Jurong Formation, Singapore: Observation of Syndepositional Pyroclastic Sedimentation Process with Possible Peperite Formation
Kar WINN[1#+], Khin ZAW[2], Jay THOMPSON[2]
[1]Rock mechanics and Engineering Society Singapore, [2]University of Tasmania

SE06-D2-AM2-328-005 | SE06-A016

Geochemistry and Zircon U-Pb Geochronology of Granitogneiss Rocks in the Chu Lai - Kham Duc Area in Central Vietnam: Implications for Rifting the Indochina Block from Northern Gondwana
Sang DINH[1#+], Khin ZAW[2], Sebastien MEFFRE[2], Anthony CRAWFORD[3], Hai Thanh TRAN[4]
[1]PetroVietnam University, [2]University of Tasmania, [3]A & A Crawford Geological Research Consultants, [4]Hanoi University of Mining and Geology

PS06 / Planetary Shape, Gravity, Rotation, and Interior Structures from Observations and Models

Tue - 30 Jul | MR310

Time 11:00-12:30
Chair(s) Juergen OBERST, *German Aerospace Center (DLR)*
Koji MATSUMOTO, *National Astronomical Observatory of Japan*

PS06-D2-AM2-310-001 | PS06-A002

Improved Trajectory of Hayabusa2 by Combining LIDAR Data and a Shape Model
Koji MATSUMOTO[1#+], Hirotomo NODA[1], Yoshiaki ISHIHARA[2], Hiroki SENSHU[3], Keiko YAMAMOTO[1], Naru HIRATA[4], Naoyuki HIRATA[5], Noriyuki NAMIKI[1], Toshimichi OTSUBO[6], Sei-Ichiro WATANABE[7], Takahide MIZUNO[8], Yukio YAMAMOTO[8], Hitoshi IKEDA[8], Naoko OGAWA[8], Shota KIKUCHI[8], Takanao SAIKI[8], Yuichi TSUDA[8]
[1]National Astronomical Observatory of Japan, [2]National Institute for Environmental Studies, [3]Chiba Institute of Technology, [4]The University of Aizu, [5]Kobe University, [6]Hitotsubashi University, [7]Nagoya University, [8]Japan Aerospace Exploration Agency

PS06-D2-AM2-310-002 | PS06-A008

Alignment Determination of the Hayabusa2 Laser Altimeter (LIDAR)
Hirotomo NODA[1#+], Koji MATSUMOTO[1], Hiroki SENSHU[2], Noriyuki NAMIKI[1], Seiji SUGITA[3]
[1]National Astronomical Observatory of Japan, [2]Chiba Institute of Technology, [3]The University of Tokyo

PS06-D2-AM2-310-003 | PS06-A004

Estimation of Hayabusa2 Trajectory Using LIDAR and AIT Data Sets
Keiko YAMAMOTO[1#+], Toshimichi OTSUBO[2], Koji MATSUMOTO[1], Hirotomo NODA[1], Noriyuki NAMIKI[1], Hiroki SENSHU[3], Takahide MIZUNO[4], Naoko OGAWA[4], Go ONO[4], Yuya MIMASU[4], Kent YOSHIKAWA[4], Tadateru TAKAHASHI[4], Yuto TAKEI[4], Atsushi FUJII[4], Fuyuto TERUI[4], Takanao SAIKI[4], Satoru NAKAZAWA[4], Makoto YOSHIKAWA[4], Yuichi TSUDA[4]
[1]National Astronomical Observatory of Japan, [2]Hitotsubashi University, [3]Chiba Institute of Technology, [4]Japan Aerospace Exploration Agency

PS06-D2-AM2-310-004 | PS06-A001

Determination of Physical Parameters of NEOs Using Rotational Corrections
Eduardo RONDON[1#+], Daniela LAZZARO[1]
[1]Observatorio Nacional

PS06-D2-AM2-310-005 | PS06-A010

Phobos and Deimos: Shape and Implications for Their Formation
Xuanyu HU[1], Juergen OBERST[2#+], Konrad WILLNER[2]
[1]Technical University Berlin, [2]German Aerospace Center (DLR)

PS07 / Magnetospheres, Atmospheres, Exospheres of Outer Planets and Their Satellites

Tue - 30 Jul | MR311

Time 11:00-12:30
Chair(s) Sushil ATREYA, *University of Michigan*

PS07-D2-AM2-311-001 | PS07-A023 (Invited)

A Magnetic Perspective on the Interior of Saturn
Michele DOUGHERTY[1#+], Hao CAO[2,3]
[1]Imperial College London, [2]Harvard University, [3]California Institute of Technology

PS07-D2-AM2-311-002 | PS07-A013

Saturn's Deep Atmospheric Flows in Light of the Cassini Gravity and Magnetic Measurements
Eli GALANTI[1#+], Yohai KASPI[1]
[1]Weizmann Institute of Science

PS07-D2-AM2-311-003 | PS07-A019 (Invited)

The Ionosphere of Saturn Using the RPWS/LP Measurements During the Cassini Grand Finale
Lina HADID[1#+], Michiko MOROOKA[2], Jan-Erik WAHLUND[2], Ann PERSOON[3], William M. FARRELL[4], William KURTH[3], Luke MOORE[5], Matthew HEDMAN[6], David ANDREWS[2], Oleg SHEBANITS[7], Niklas EDBERG[2], Erik VIGREN[2], J. Hunter WAITE, JR.[8], Thomas E. CRAVENS[9], Rebecca PERRYMAN[8]
[1]European Space Research and Technology Centre, [2]Swedish Institute of Space Physics, [3]The University of Iowa, [4]NASA Goddard Space Flight Center, [5]Boston University, [6]University of Idaho, [7]Imperial College London, [8]Southwest Research Institute, [9]University of Kansas

PS07-D2-AM2-311-004 | PS07-A012 (Invited)

On the 1-hour Periodicities in the Saturnian System
Benjamin PALMAERTS[1#+], Elias ROUSSOS[2], Denis GRODENT[1], Z. H. YAO[1], Katerina RADIOTI[1], Peter DELAMERE[3], Brandon BURKHOLDER[3]
[1]University of Liege, [2]Max Planck Institute for Solar System Research, [3]University of Alaska Fairbanks

PS07-D2-AM2-311-005 | PS07-A007

Plasmoid Observation in the Magnetotail of Uranus: Implications for Plasma Convection and Downtail Mass Loss
Gina DI BRACCIO[1#+], Daniel GERSHMAN[1]
[1]*NASA Goddard Space Flight Center*

AS12 / 12th Sasaki Symposium on Data Assimilation for Atmospheric, Oceanic, and Hydrologic Applications

Tue - 30 Jul | MR327

Time 11:00-12:30
Chair(s) Shu-Chih YANG, *National Central University*
Ibrahim HOTEIT, *King Abdullah University of Science and Technology*

AS12-D2-AM2-327-001 | AS12-A017 (Invited)

Improving Convection Initiation Forecast of an Extreme Rainstorm by Assimilating Every 10-min AHI Radiances with WRF 4DVAR
Zhiquan LIU[1#+], Yali WU[1]
[1]*National Center for Atmospheric Research*

AS12-D2-AM2-327-002 | AS12-A008

The Australian Wind Profiler Network and its Impact on Global Numerical Numerical Weather Prediction
Bronwyn DOLMAN[1#+], Iain REID[1,2], Chris TINGWELL[3]
[1]*ATRAD Pty Ltd,* [2]*University of Adelaide,* [3]*Australian Government Bureau of Meteorology*

AS12-D2-AM2-327-003 | AS12-A010

The Impacts of Background Error Statistics in Radar Data Assimilation
Thiruvengadam PADMANABHAN[1#+], Indu J.[1], Subimal GHOSH[1]
[1]*Indian Institute of Technology Bombay*

AS12-D2-AM2-327-004 | AS12-A005

Exploring the Sparsity of Error Covariance with Applications to Unscented Kalman Filter
Wei KANG[1#+], Liang XU[2]
[1]*Naval Postgraduate School,* [2]*Naval Research Laboratory*

AS12-D2-AM2-327-005 | AS12-A006

Relevance of the Background Error Covariance Matrix for SINGV
Joshua LEE[1#+], Xiang-Yu HUANG[1]
[1]*Centre for Climate Research Singapore*

AS12-D2-AM2-327-006 | AS12-A007

Big Data Assimilation: Past 5 Years and Perspectives for the Future
Takemasa MIYOSHI[1,2#+], Shigenori OTSUKA[1], Takumi HONDA[1], Guo-Yuan LIEN[3], Yasumitsu MAEJIMA[3], Yoshito YOSHIZAKI[4], Hiromu SEKO[4], Hirofumi TOMITA[3], Shinsuke SATOH[5], Tomoo USHIO[6], Tatiana MARTSINKEVICH[1], Balazs GEROFI[1], Yutaka ISHIKAWA[1]
[1]*RIKEN Center for Computational Science,* [2]*University of Maryland,* [3]*RIKEN Advanced Institute for Computational Science,* [4]*Japan Meteorological Agency,* [5]*National Institute of Information and Communications Technology,* [6]*Tokyo Metropolitan University*

OS11 / Ocean Circulation and Air-sea Interaction Over the Maritime Continent and Surrounding Waters

Tue - 30 Jul | MR302

Time 11:00-12:30
Chair(s) Lei ZHOU, *Shanghai Jiao Tong University*

OS11-D2-AM2-302-001 | OS11-A020 (Invited)

The Initial Condition Errors Occurring in the Indian Ocean Temperature that Cause "Spring Predictability Barrier" for El Niño in the Pacific Ocean
Wansuo DUAN[1#+]
[1]*Chinese Academy of Sciences*

OS11-D2-AM2-302-002 | OS11-A013

The Changing Impact Mechanisms of a Diverse El Niño on the Western Pacific Subtropical High
Xin WANG[1#+], Mengyan CHEN[1], Jin-Yi YU[2], Wenping JIANG[3]
[1]*Chinese Academy of Sciences,* [2]*University of California, Irvine,* [3]*Hohai University*

OS11-D2-AM2-302-003 | OS11-A033

Interdecadal Change in South China Sea Tropical Cyclone Frequency in Association with Zonal Sea Surface Temperature Gradient
Wen ZHOU[1#+], Cheuk Yin LI[1]
[1]*City University of Hong Kong*

OS11-D2-AM2-302-004 | OS11-A011

Internal Variability in South China Sea
Juncheng XIE[1,2], Lei ZHOU[3#+], Raghu MURTUGUDDE[4], Markus JOCHUM[5], Yisen ZHONG[3]
[1]*Hohai University,* [2]*State Oceanic Administration,* [3]*Shanghai Jiao Tong University,* [4]*University of Maryland,* [5]*University of Copenhagen*

OS11-D2-AM2-302-005 | OS11-A025

Competitive Interannual Variations of the Eastward Branch and Northward Branch of the South China Sea Upper Layer Circulation in Summer
Tingting ZU[1#+], Dongxiao WANG[1], Bingxu GENG[1], Mingting LI[2,3], Lei YANG[1]
[1]*Chinese Academy of Sciences,* [2]*Peking University,* [3]*Columbia University*

OS11-D2-AM2-302-006 | OS11-A023

Distinguishing Different Tropical Climate Modes' Atmospheric Impacts on the South China Sea Cold Tongue Strength
Marvin Xiang Ce SEOW[1#+], Tomoki TOZUKA[1], Yushi MORIOKA[2]
[1]*The University of Tokyo,* [2]*Japan Agency for Marine-Earth Science and Technology*

OS18 / Coastal Hazards: Impacts of Tropical Storms and Tsunamis

Tue - 30 Jul | Nicoll 1

Time 11:00-12:30
Chair(s) Shie-Yui LIONG, *National University of Singapore*

OS18-D2-AM2-Nicoll 1-001 | OS18-A007

Projection of Maximum Potential Intensity of Storm Surge Around Japan in the Future Climate
Nobuhito MORI[1]
[1]Kyoto University

OS18-D2-AM2-Nicoll 1-002 | OS18-A012

Downscaling for Reanalysis and Future Projection of Coastal Current System on the Ibaraki Coast
Josko TROSELJ[1,2#+], Yuki IMAI[2], Junichi NINOMIYA[3], Nobuhito MORI[2]
[1]Hiroshima University, [2]Kyoto University, [3]Kanazawa University

OS18-D2-AM2-Nicoll 1-003 | OS18-A020

Flow Properties in the Swash Tip Region with Bottom Resistance Based on the Taylor Expansion Method
Haijiang LIU[1#+]
[1]Zhejiang University

OS18-D2-AM2-Nicoll 1-004 | OS18-A026

Impact Assessment of Track Forecast Error on Storm Surge at the Port of Nagoya, Japan
Masaya TOYODA[1#+], Jun YOSHINO[1], Tomonao KOBAYASHI[1]
[1]Gifu University

OS18-D2-AM2-Nicoll 1-005 | OS18-A040

Real-time Forecasts of Tropical Cyclones Using the WRF Model with Modified Initial Conditions Using Dynamical Initialization Scheme
Ngoc Son NGUYEN[1], Srivatsan VIJAYARAGHAVAN[1#+], Jina HUR[1], Shie-Yui LIONG[1], Jaedock LEE[2]
[1]National University of Singapore, [2]National Taiwan University

OS18-D2-AM2-Nicoll 1-006 | OS18-A056

Development of the Operational and Probabilistic Forecasting Models for Rogue Waves Occurred in the Ocean and at the Coast
Dong-Jiing DOONG[1#+], Ying-Chih CHEN[1]
[1]National Cheng Kung University

BG05 / Understanding Biogeochemical Cycles in the Earth System: from Local to Regional and Global Scales

Tue - 30 Jul | MR300

Time 11:00-12:30
Chair(s) Long CAO, *Zhejiang University*

BG05-D2-AM2-300-001 | BG05-A001

Contrasting Interannual Atmospheric CO2 Variabilities and Their Terrestrial Mechanisms for Two Types of El Ninos
Jun WANG[1#+], Ning ZENG[2]
[1]Nanjing University, [2]University of Maryland

BG05-D2-AM2-300-002 | BG05-A004 (Invited)

Impacts of Climate Change and Socio-economic Development on Future Nitrogen Export: A Comparative Study of Three Large River Basins
Ting TANG[1#+], Mengru WANG[2], Maryna STROKAL[2], Peter BUREK[1], David LECLERE[1], Tamas KRISZTIN[1], Barbara WILLAARTS[1], Carolien KROEZE[2], Simon LANGAN[1], Yoshihide WADA[1]
[1]International Institute for Applied Systems Analysis (IIASA), [2]Wageningen University & Research

BG05-D2-AM2-300-003 | BG05-A007

Contributions of Coralline Macroalgae to Sediment Production in a Disturbed Mixed-macrophyte Habitat
Natasha ARINA[1+], Mohammad ROZAIMI[1#], Nur HIDAYAH[1], Chandran RAYNUSHA[1]
[1]Universiti Kebangsaan Malaysia

BG05-D2-AM2-300-004 | BG05-A009

Sources, Transport and Distribution of DIC, DOC and POC in the Nandu River Estuary, China
Yaying LIN[1#+]
[1]Tsinghua University

AS17 / Atmospheric Chemistry in Highly Polluted Environments: Emissions, Fates, and Impacts

Tue - 30 Jul | MR309

Time 11:00-12:30
Chair(s) Sri KOTA, *Indian Institute of Technology Delhi*
Hao GUO, *Louisiana State University*

AS17-D2-AM2-309-001 | AS17-A005 (Invited)

Atmospheric Chemistry Processes During the Pollution Episodes in the Fall and Winter of North China
Min HU[1#+], Dongjie SHANG[1], Xin FANG[1], Yao XIAO[1], Limin ZENG[1], Song GUO[1], Zhijun WU[1], Sihua LU[1], Shiyi CHEN[1], Keding LU[1], Yuanhang ZHANG[1]
[1]Peking University

AS17-D2-AM2-309-002 | AS17-A025

Snow Chemistry and Deposition Flux of Reactive Nitrogen Species Through Precipitation in Western Himalayas (India)
Anshu SHARMA[1#+], U.C. KULSHRESTHA[1]
[1]Jawaharlal Nehru University

AS17-D2-AM2-309-003 | AS17-A035

Comparison of Chemical Fingerprint and Source Apportionment of PM2.5 at Two Harbors in the Philippines and Taiwan
Chung-Shin YUAN[1#+], Gerry BAGTASA[2], Jian-Xing WU[1], Po-Hung CHENG[1], Bo-Xuan YAN[1]
[1]National Sun Yat-sen University, [2]University of the Philippines

AS17-D2-AM2-309-004 | AS17-A036

Characteristics of PAHs and n-Alkanes in PM2.5 at Urban and Residential Sites in Mongolia
SangHee HAN[1], Natsagdorj AMGALAN[2#], Kia KIM[3], Yong Pyo KIM[3], Jiyi LEE[3+]
[1]University of Florida, [2]National University of Mongolia, [3]Ewha Womans University

AS17-D2-AM2-309-005 | AS17-A022

Identification of Possible Sources of PM2.5 Using PM2.5 Growth Process and Hysplit for Developing a Preliminary Early Warning System for Air Quality in Indian Cities
Shovan Kumar SAHU[1], Shubham SHARMA[2], Jianlin HU[3], Sri KOTA[2#+]
[1]Tsinghua University, [2]Indian Institute of Technology Delhi, [3]Nanjing University of Information Science & Technology

IG04 / Natural Hazards and Disaster Risk: Current and Historical Perspectives

Tue - 30 Jul | MR323

Time 11:00-12:30
Chair(s) Vena Pearl BONGOLAN, *University of the Philippines Diliman*
Bachtiar MUTAQIN, *Universitas Gadjah Mada*

IG04-D2-AM2-323-001 | IG04-A010

Global Major Weather and Climate Events in 2017 and the Possible Causes
Shao SUN[1#+]
[1]National Climate Center

IG04-D2-AM2-323-002 | IG04-A025 (Invited)

An Improved Drought-fire Assessment for Tropical Peatlands
Muh TAUFIK[1#+], Marliana Tri WIDYASTUTI[2], I Putu SANTIKAYASA[1], Albertus SULAIMAN[3], Haris GUNAWAN[4], Daniel MURDIYARSO[5], Awaluddin AWALUDDIN[3]
[1]IPB University, [2]Bogor Agricultural University, [3]Technology Assessment and Application Agency, [4]Badan Restorasi Gambut, [5]Center for International Forestry Research

IG04-D2-AM2-323-003 | IG04-A027

Lessons Learned from 2017/2018 California Wildfires
Yue-Jun YIN[1#+], Luxi ZHOU[1], Tammy VIGGATO[1]
[1]AIR Worldwide

IG04-D2-AM2-323-004 | IG04-A045

Science and Policy Interacted for Combating Desertification Land Degradation - Case Summary from China
Tao WANG[1#+]
[1]Chinese Academy of Sciences

IG04-D2-AM2-323-005 | IG04-A043

Radon Regulation and Research in Europe: Is it Relevant for the Asian-pacific Region?
Peter BOSSEW[1#+], Miroslaw JANIK[2], Giorgia CINELLI[3], Tore TOLLEFSEN[3], Marc DE CORT[3]
[1]German Federal Office for Radiatiion Protection (BfS), [2]National Institute of Radiological Sciences, [3]European Commission

AS06 / Convection and Its Effects on Weather and Climate

Tue - 30 Jul | MR308

Time 13:30-15:30
Chair(s) Chunsong LU, *Nanjing University of Information Science & Technology*

AS06-D2-PM1-308-001 | AS06-A002 (Invited)

Vertical Transport of Pollutants in Deep Convective Clouds and its Impacts on the Acidity of Cloud and Rain Drops
Yan YIN[1#+], Jiaying HU[2], Qian CHEN[2]
[1]Nanjing University of Information Science & Technology (NUIST), [2]Nanjing University of Information Science & Technology

AS06-D2-PM1-308-002 | AS06-A003 (Invited)

Improvement of Cumulus Parameterization in the CWB Global Model and Evaluation of Simulated MJO Convection During 2011 Dynamo Campaign
Ming-Jen YANG[1#+], Chang-Hung LIN[1], Jen-Her CHEN[2]
[1]National Taiwan University, [2]Central Weather Bureau

AS06-D2-PM1-308-003 | AS06-A026 (Invited)

On the Use of Chemical Tracers to Develop an Observation-based Diagnostic for Quantifying Convective Transport Time Scales and Pathways
Z. Johnny LUO[1#+], Laura L. PAN[2], Elliot ATLAS[3], Sofia CHELPON[1], Shawn HONOMICHL[2], Eric APEL[2], Rebecca HORNBROOK[2], Samuel HALL[2]
[1]The City University of New York, [2]National Center for Atmospheric Research, [3]University of Miami

AS06-D2-PM1-308-004 | AS06-A007

Aircraft Observations of Convective Transport of Sulfur and Reactive Nitrogen Species in the Asian Summer Monsoon Region
Hans SCHLAGER[1#+], Greta STRATMANN[1], Heinfried AUFMHOFF[1]
[1]German Aerospace Center (DLR)

AS06-D2-PM1-308-005 | AS06-A004

Factors Affecting Entrainment Rate in Cumulus Clouds and Parameterizations
Chunsong LU[1#+], Yangang LIU[2], Cheng SUN[1], Guang ZHANG[3], Yanluan LIN[3], Wenhua GAO[4], Shengjie NIU[1], Yan YIN[1], Yujun QIU[1], Lianji JIN[1]
[1]Nanjing University of Information Science & Technology, [2]Brookhaven National Laboratory, [3]Tsinghua University, [4]Chinese Academy of Meteorological Sciences

AS06-D2-PM1-308-006 | AS06-A001

Characteristics of Deep-developed Boundary Layer in Northwest China and Optimization of Parameterization Schemes in Numerical Simulation
Minjin MA[1#+]
[1]Lanzhou University

AS06-D2-PM1-308-007 | AS06-A024

Main Detrainment Height of Deep Convection Systems over the Tibetan Plateau and its Southern Slope
Quan-Liang CHEN[1#+]
[1]Chengdu University of Information Technology

AS30 / Extreme Weather Resiliency: Prediction and Response Strategies

Tue - 30 Jul | MR304

Time 13:30-15:30
Chair(s) Pay-Liam LIN, *National Central University*

AS30-D2-PM1-304-001 | AS30-A023

US-Taiwan Partnership for International Research and Education on Extreme Weather and Decision-making
Everette JOSEPH[1#+], Pay-Liam LIN[2]
[1]University at Albany - State University of New York, [2]National Central University

AS30-D2-PM1-304-002 | AS30-A005 (Invited)

Goddard Microphysics: Status and Evaluation
Wei-Kuo TAO[1#+]
[1]NASA Goddard Space Flight Center

AS30-D2-PM1-304-003 | AS30-A002 (Invited)

A Modeling Study of the Severe Afternoon Thunderstorm Event at Taipei on 14 June 2015: The Roles of Sea Breeze, Microphysics, and Terrain
Ming-Jen YANG[1#+], Jyong-En MIAO[1]
[1]National Taiwan University

AS30-D2-PM1-304-004 | AS30-A022

The Microphysical Characteristics of Heavy Precipitation Systems Revealed by Observational Data During SoWMEX/TiMREX
Wei-Yu CHANG[1#+], Ke-Xin LU[1], Tai-Chi CHEN WANG[1]
[1]National Central University

AS30-D2-PM1-304-005 | AS30-A004 (Invited)

The Heavy Rainfall Process Revealed by Surface Station Observations and a 4DVar Radar Data Assimilation System - A Case Study in Northern Taiwan
Yu-Chieng LIOU[1#+]
[1]National Central University

AS30-D2-PM1-304-006 | AS30-A029

Impact of Doppler Radar Network in Taiwan on the Convective-scale Data Assimilation and Precipitation Prediction: The Extreme Precipitation Event During 1-3 June 2017
Hsiang-Wen CHENG[1#+], Shu-Chih YANG[1], Ching-Sen CHEN[1]
[1]National Central University

AS30-D2-PM1-304-007 | AS30-A019 (Invited)

Impacts of Dynamic Vortex Initialization of a Global Variable-resolution Model on Simulations of Westbound Typhoons
Ching-Yuang HUANG[1#+], Lin CHIA-YANG[1]
[1]National Central University

AS30-D2-PM1-304-008 | AS30-A014

Evaluating the Performance of Very Short-term Forecast by Dual-polarimetric Radar Observations: A Case Study of SoWMEX-IOP 8
Kaoshen CHUNG[1#+], Cheng-Rong YOU[1], Chih-Chien TSAI[2]
[1]National Central University, [2]Taiwan Typhoon and Flood Research Institute

AS30-D2-PM1-304-009 | AS30-A016

Seasonal and Spatial Characteristics of Raindrop Size Distribution over South Taiwan
Balaji Kumar SEELA[1,2+], Jayalakshmi JANAPATI[1], Pay-Liam LIN[1#], Pao WANG[2,3], Chi-Huei TSENG[4], Lei FENG[4]
[1]National Central University, [2]Academia Sinica, [3]University of Wisconsin-Madison, [4]Taiwan Typhoon Flood Research Institute

AS44 / Advances in Remote Sensing and Modeling of Fires and Tropospheric Composition in Asia

Tue - 30 Jul | MR303

Time 13:30-15:30
Chair(s) Rokjin J. PARK, *Seoul National University*

AS44-D2-PM1-303-001 | AS44-A021 (Invited)

New Era of Air Quality Monitoring over Asia from Space: Geostationary Environment Monitoring Spectrometer (GEMS)
Jhoon KIM[1#+], Myoung Hwan AHN[2], Rokjin J. PARK[3], Jae KIM[4], Hanlim LEE[5], Chul Han SONG[6], Yong-Sang CHOI[2], Kwon-Ho LEE[7], Jung-Moon YOO[2], Seon Ki PARK[2], Kwang-Mog LEE[8], Chang-Keun SONG[9], Sang-Woo KIM[3], Si-Wan KIM[1], Sujung GO[1], Ukkyo JEONG[10], Heesung CHONG[1], Hana LEE[1], Sang Seo PARK[3], Won-Jun CHOI[11], Kyung-Jung MOON[11], Hyunkee HONG[11], Ara CHO[11], Jongmin YOON[11], Sang-Kyun KIM[11], Xiong LIU[12], Kelly CHANCE[13], Jassim AL-SAADI[10], Ben VEIHEMLANN[14]
[1]Yonsei University, [2]Ewha Womans University, [3]Seoul National University, [4]Pusan National University, [5]Pukyong National University, [6]Gwangju Institute of Science and Technology, [7]Gangneung-Wonju National University, [8]Kyungpook National University, [9]Ulsan National Institute of Science and Technology, [10]NASA Goddard Space Flight Center, [11]National Institute of Environmental Research, [12]Harvard University, [13]Harvard-Smithsonian Center for Astrophysics, [14]European Space Research and Technology Centre

AS44-D2-PM1-303-002 | AS44-A007 (Invited)

Advanced Validation of TROPOMI Satellite Observations of NO2 Column Densities Using Co-located Direct and Scattered Sunlight Measuring Spectrometers (Pandora and MAX-DOAS) at Yokosuka, Japan
Yugo KANAYA[1#+], Hisahiro TAKASHIMA[1,2], Masato NODZU[3], Takashi SEKIYA[1], Kazuyuki MIYAZAKI[1], Henk ESKES[4], Gaia PINARDI[5], Daniel SANTANA DIAZ[6], Moritz MUELLER[6], AC CEDE[6,7]
[1]Japan Agency for Marine-Earth Science and Technology, [2]Fukuoka University , [3]Tokyo Metropolitan University, [4]Royal Dutch Meteorological Institute, [5]Royal Belgian Institute for Space Aeronomy, [6]LuftBlick, [7]NASA Goddard Space Flight Center

AS44-D2-PM1-303-003 | AS44-A012 (Invited)

Development of Hybrid Algorithm Based on DOAS and PCA for PBL SO2 Column Retrieval from UV Hyperspectral Satellite Sensor
Jiwon YANG[1], Hanlim LEE[1#+], Jhoon KIM[2], Can LI[3], Nickolay KROTKOV [3]
[1]Pukyong National University, [2]Yonsei University, [3]NASA Goddard Space Flight Center

AS44-D2-PM1-303-004 | AS44-A028

Portable Multichannel Near-infrared Heterodyne Spectroradiometer for Simultaneous CO2 and CH4 Precision Column Measurements
Sergei ZENEVICH[1#+], Alexander RODIN[1], Dmitriy CHURBANOV[1], Maxim SPIRIDONOV[1], Iskander GAZIZOV[1]
[1]Moscow Institute of Physics and Technology

AS44-D2-PM1-303-005 | AS44-A013

Aerosol Chemical Component: Simulations with WRF-Chem and Comparison with Measurements in Nanjing
Tong SHA[1#+], Xiaoyan MA[1]
[1]Nanjing University of Information Science & Technology

AS44-D2-PM1-303-006 | AS44-A032 (Invited)

From Enhanced Lofting to Increased Suppression, the Vertical Distribution and Ultimate Long-range or Local-transport of Different Fire Sources Across Asia
Jason COHEN[1#+]
[1]Sun Yat-sen University

AS44-D2-PM1-303-007 | AS44-A002

Recent Advances in Remote Sensing of Fire Emission from Space
Jun WANG[1#+], Sepehr ROUDINI[1]
[1]The University of Iowa

SE01 / Paleomagnetism and Rock Magnetism Applied to Solving Geological, Geophysical, and Environmental Problems

Tue - 30 Jul | MR330

Time 13:30-15:30

Chair(s) Andrew ROBERTS, *Australian National University*
Yuhji YAMAMOTO, *Kochi University*

SE01-D2-PM1-330-001 | SE01-A011 (Invited)

Stalagmite-based Paleomagnetic Record of the Multidecadally-resolved Post-Blake Geomagnetic Excursion
Yu-Min CHOU[1#+], Xiuyang JIANG[2], Qingsong LIU[1], Hsunming HU[3], Chung-Che WU[3], Jianxing LIU[4], Zhaoxia JIANG[5], Teh-Quei LEE[6], Chun-Chieh WANG[7], Yen-Fang SONG[7], Cheng-Cheng CHIANG[7], Liangcheng TAN[8], Mahjoor Ahmad LONE[3], Yongxin PAN[8], Rixiang ZHU[8], Yaoqi HE[9], An-Hung TAN[10], Andrew ROBERTS[11], Xiang ZHAO[11], Chuan-Chou SHEN[3]
[1]Southern University of Science and Technology, [2]Fujian Normal University, [3]National Taiwan University, [4]State Oceanic Administration, [5]Ocean University of China, [6]Academia Sinica, [7]National Synchrotron Radiation Research Center, [8]Chinese Academy of Sciences, [9]Guizhou Minzu University, [10]Chien Hsin University of Science and Technology, [11]Australian National University

SE01-D2-PM1-330-002 | SE01-A003

Magnetostratigraphic Study of the Potash-bearing Strata from Drilling Core ZK2893 in the Sakhon Nakhon Basin, Eastern Khorat Plateau
Maodu YAN[1#+], Dawen ZHANG[1]
[1]Chinese Academy of Sciences

SE01-D2-PM1-330-003 | SE01-A019

From Extreme Geomagnetic Reversal Frequency to Superchron. The Case of the Early Paleozoic
Vladimir PAVLOV[1#+], Yves GALLET[2]
[1]Institute of Physics of the Earth of Russian Academy of Sciences, [2]Institut de Physique du Globe de Paris

SE01-D2-PM1-330-004 | SE01-A014 (Invited)

Aeolian Dust in Sediments from the North Pacific Ocean and its Paleoclimatic Significance
Qingsong LIU[1#+], Qiang ZHANG[2], Jianxing LI[3], Ting CHEN[1], Andrew ROBERTS[4]
[1]Southern University of Science and Technology, [2]Chinese Academy of Sciences, [3]China Geological Survey, [4]Australian National University

SE01-D2-PM1-330-005 | SE01-A007

Nano-sized Magnetite and Hematite Inclusions in Muscovite Significantly Contribute to the Magnetic Enhancement of Loess–paleosol Deposits
Masayuki HYODO[1#+], Takuro SANO[1], Megumi MATSUMOTO[2], Yusuke SETO[1], Kota SUZUKI[1], Tianshui YANG[3]
[1]Kobe University, [2]Tohoku University, [3]China University of Geosciences

SE01-D2-PM1-330-006 | SE01-A021

Out-of-phase Susceptibility and Viscous Magnetization: Alternative Tools for Magnetic Granulometry of Loess and Paleosols
Martin CHADIMA[1,2#+], Jaroslav KADLEC[3], Vadim KRAVCHINSKY[4], Rui ZHANG[5], Michaela ZATECKA[6], Sherry JING[5]
[1]Advanced Geoscience Instruments Company, [2]Czech Academy of Sciences, [3]Geophysical Institute, [4]University of Alberta, [5]Northwest University, [6]Charles University

SE01-D2-PM1-330-007 | SE01-A012

Magnetic Mineral Tracing of Sediment Provenance in the Middle Bengal Fan
Pengfei XUE[1#+], Liao CHANG[1], Shishun WANG[1], Shengfa LIU[2], Jinhua LI[3], Xuefa SHI[2]
[1]Peking University, [2]State Oceanic Administration, [3]Chinese Academy of Sciences

SE12 / From Earthquakes and Fault Ruptures to Seismic Hazards of Southeast and East Asia
SE16 / Integrating Our Understanding of the 2018 Mw 7.5 Palu Earthquakes and Its Tsunami

Tue - 30 Jul | MR329

Time 13:30-15:30

Chair(s) Qiu QIANG, *Nanyang Technological University*
Yu WANG, *National Taiwan University*

SE12-D2-PM1-329-002 | SE12-A013

Tectono-geomorphic Signatures of Faults in Central Cebu Island, Philippines, Derived from Morphometric Analysis
Lyndon NAWANAO JR.[1#+], Noelynna RAMOS[1], Raul Benjamin MENDOZA[1], Carla DIMALANTA[1]
[1]University of the Philippines Diliman

SE12-D2-PM1-329-003 | SE12-A015

Fault Geometry and Seismic Hazard of the Central Cebu Fault, Philippines
Raul Benjamin MENDOZA[1#+], Noelynna RAMOS[1], Carla DIMALANTA[1]
[1]University of the Philippines Diliman

SE12-D2-PM1-329-004 | SE12-A019 (Invited)

Evaluating Variability in Co-seismic Slip at a Point from Incomplete Paleoseismic Records: An Example from the Kamishiro Fault, Itoigawa-Shizuoka Tectonic Line Active Fault System, Central Japan
Naoya TAKAHASHI[1#+], Shinji TODA[1]
[1]Tohoku University

SE16-D2-PM1-329-001 | SE16-A008 (Invited)

Large Shallow Slip During the 2018 M7.6 Palu Earthquake
Eric LINDSEY[1#+], Rishav MALLICK[1], Yu-Ting KUO[2], Guangcai FENG[3], Teng WANG[4], Yu WANG[2], Emma HILL[1]
[1]Nanyang Technological University, [2]National Taiwan University, [3]Central South University, [4]Peking University

SE16-D2-PM1-329-005 | SE16-A006 (Invited)

Field Observations and LIDAR Mapping of the 2018 Mw7.5 Surface Deformations Along the Palukoro Left-lateral Fault in Central Sulawesi, Indonesia
Danny NATAWIDJAJA[1#+], Mudrik DARYONO[2], Astyka PAMUMPUNI[3], Endra GUNAWAN[3], Sri HIDAYATI[4]
[1]Indonesian Institute of Sciences, [2]Indonesian Institute of Sciences - LIPI, [3]Institute of Technology Bandung, [4]Geological Agency of Indonesia

SE16-D2-PM1-329-006 | SE16-A007

Active Deformation in Palu Bay and Makassar Strait as Inferred from Newly Acquired Bathymetry Data
Nugroho D. HANANTO[1#+], Safri BURHANUDDIN[2], Marina FREDERIK[3], Udrekh UDREKH[3], Ramadhan ADHITAMA[4], Asrafil ASRAFIL[5], Sahab SAHABUDDIN[6], Omar MOEFTI[3], Bondan RIYALDA[3], Muhammad IRFAN[3], Dimas PUTRA[3]
[1]Indonesian Institute of Sciences, [2]University of Hassanuddin, [3]Agency for the Assessement and Application of Technology (BPPT), [4]University of Trisakti, [5]University Tadulako, [6]University of Hassannuddin

SE06 / Tectonics, Minerals, Metals and Gems Resources of Asia Oceania Region

Tue - 30 Jul | MR328

Time 13:30-15:30
Chair(s) Khin ZAW, *University of Tasmania*

SE06-D2-PM1-328-001 | SE06-A026 (Invited)

Geochemical Constraints on Scandium and REE Enrichment During Nickel Laterite Formation in the Infanta Deposit, South Palawan, Philippines
Jillian Aira GABO-RATIO[1#+], Kosei NODA[2], Kotaro YONEZU[2], Rogel SANTOS[3]
[1]University of the Philippines Diliman, [2]Kyushu University, [3]MacroAsia Mining Corporation

SE06-D2-PM1-328-002 | SE06-A011

Ore Mineralogy, Ore Textures and Genesis of Phaungdaw Lead Skarn Deposit, Pyawbwe Township, Mandalay Region, Myanmar
Yin Yin AYE[1#+]
[1]Mawlamyine University

SE06-D2-PM1-328-003 | SE06-A019

Geology and Geochemistry of Gold Mineralizations in Tachileik-Tar Lay Area, Tachileik and Tar Lay Townships, Shan State (East), Myanmar
Zaw MYO HTET[1#+]
[1]University of Yangon

SE06-D2-PM1-328-004 | SE06-A029

Scapolite Occurrences in the Meta-sediments and Meta-volcanics of Proterozoic Delhi Supergroup: A Link to Base Metal Mineralization
Prabodha SAHOO[1#+], Janmejaya SAHOO[2], Jyoti Priyam SHARMA[3], Israil KHAN[2], Venkatesh AKELLA[3]
[1]Indian Institute of Technology (Indian School of Mines) Dhanbad, [2]Geological Survey of India, [3]Indian School of Mines

SE06-D2-PM1-328-005 | SE06-A008

Mineralization Characteristics of Shangalon-Kyungalon Porphyry Related Copper-molydenum-gold Deposit, Kawlin Township, Sagaing Region, Myanmar
Kyaw Zin OO[1], Khin ZAW[2#+]
[1]1206, Goldsmith Rd, Kyaunggyi ward, Pyay, Myanmar, [2]University of Tasmania

SE06-D2-PM1-328-006 | SE06-A023

Incremental Emplacement of the Late Jurassic Mid-crustal, Lopolith-like Qitianling Pluton and Implication for Mesozoic Tectonic Setting in South China
Bo WANG[1#+], Hongsheng LIU[2], Yan CHEN[3], Guillaume MARTELET[4], Michel FAURE[3], Bruno SCAILLET[3]
[1]Nanjing University, [2]Central-South University, [3]University of Orleans, [4]Bureau of Geological and Mining Research

SE06-D2-PM1-328-007 | SE06-A021

The Discovery of Mesoproterozoic Magmatic Generation in East Central Indochina Block and its Significance to the Regional Tectonic Evolution
Hai Thanh TRAN[1#+], Hau Vinh BUI[1], Hiep Huu NGUYEN[1], Thanh Xuan NGO[1], Khin ZAW[2]
[1]Hanoi University of Mining and Geology, [2]University of Tasmania

SE06-D2-PM1-328-008 | SE06-A018

Inhomogeneous Thinning of Cratonic Lithosphere Keel by Tectonic Extension: The Early Cretaceous Jiaodong-liaodong Peninsula Extensional Provinces, Eastern North China Craton
Junlai LIU[1#+]
[1]China University of Geosciences (Beijing)

PS18 / Science and Exploration of Mars and Venus

Tue - 30 Jul | MR310

Time 13:30-15:30
Chair(s) Varun SHEEL, *Physical Research Laboratory*

PS18-D2-PM1-310-001 | PS18-A004 (Invited)

Oxidants on Mars: Role of Radiolysis, Photochemistry and Surface-atmosphere Interaction
Sushil ATREYA[1#+], Paul MAHAFFY[2], Therese ENCRENAZ[3], Ralf KAISER[4], Eric WILSON[5]
[1]University of Michigan, [2]NASA Goddard Space Flight Center, [3]Paris Observatory, [4]University of Hawaii, [5]University of Michigan Alumnus

PS18-D2-PM1-310-002 | PS18-A005 (Invited)

Martian Aurora and its Causative Mechanisms: Maven Observations

S.A. HAIDER[1#+], Masoom P JETHWA[1], David A. BRAIN[2], Robert LILLIS[3]

[1]Physical Research Laboratory, [2]University of Colorado Boulder, [3]University of California, Berkeley

PS18-D2-PM1-310-003 | PS18-A025

The Evolution of the Mars Ionosphere over Consecutive MEX Orbits from Radio Occultation

Martin PATZOLD[1#+], Silvia TELLMANN[2], Kerstin PETER[2], Bernd HAEUSLER[3], Tom ANDERT[3], Matthias HAHN[1], David P. HINSON[4]

[1]University of Cologne, [2]Rhenish Institute for Environmental Research, [3]Universität der Bundeswehr München, [4]Stanford University

PS18-D2-PM1-310-004 | PS18-A001

Martian Upper Atmospheric Wave Activities from Multi-satellite Accelerometers Observations and GCM Model

Shuanggen JIN[1,2#+], Jiandong LIU[3], Yawen LI[1]

[1]Nanjing University of Information Science & Technology, [2]Shanghai Astronomical Observatory, Chinese Academy of Sciences, [3]Chinese Academy of Sciences

PS18-D2-PM1-310-005 | PS18-A023

The Influence of Atmospheric Dust on the Atmosphere and Ionosphere of Mars as Seen by the Radio Science Experiment Mars on Mars Express

Silvia TELLMANN[1#+], Kerstin PETER[2], Martin PÄTZOLD[1], Bernd HÄUSLER[3], David P. HINSON[4]

[1]Rhenish Institute for Environmental Research, [2]University of Cologne, [3]Universität der Bundeswehr München, [4]Stanford University

PS18-D2-PM1-310-006 | PS18-A018

Recent Improvements of the LMD GCM to Better Model the Martian Water and Dust Cycles

Ehouarn MILLOUR[1#+], Francois FORGET[2], Margaux VALS[3], Aymeric SPIGA[1], Chao WANG[2]

[1]Sorbonne Universite, [2]University Pierre et Marie Curie, [3]Laboratoire de Meteorologie Dynamique

PS18-D2-PM1-310-007 | PS18-A032

Mars Dust Storm Dynamics and Convective Earth Analogs

Scot RAFKIN[1#+], Jorge PLA-GARCIA[2], Cecilia LEUNG[3]

[1]Southwest Research Institute, [2]Centro de Astrobiología (CSIC-INTA), [3]The University of Arizona

PS18-D2-PM1-310-008 | PS18-A030

Effect of Dust on Martian Ozone

Varun SHEEL[1#+], Ashimananda MODAK[1]

[1]Physical Research Laboratory

PS02 / Plasma - Surface Interactions with Airless Bodies in the Solar System

Tue - 30 Jul | MR311

Time 13:30-15:30

Chair(s) Jan DECA, *University of Colorado Boulder*
Charles LUE, *Swedish Institute of Space Physics*

PS02-D2-PM1-311-001 | PS02-A003

Plasma Observation at Very Low Altitude Around Lunar Magnetic Anomalies

Yoshifumi SAITO[1#+], Masaki N. NISHINO[1], Shoichiro YOKOTA[2], Hideo TSUNAKAWA[3]

[1]Japan Aerospace Exploration Agency, [2]Osaka University, [3]Tokyo Institute of Technology

PS02-D2-PM1-311-002 | PS02-A011

Numerical Simulation of Solar Wind Scattering by Lunar Crustal Magnetic Field

Andrey DIVIN[1#+], Jan DECA[2], V. OLSHEVSKY[3], Tara AHMADI[1,4], Stefano MARKIDIS[3], Vladimir SEMENOV[1], Roman BELIAEV[1]

[1]Saint Petersburg State University, [2]University of Colorado Boulder, [3]KTH Royal Institute of Technology, [4]The University of Tokyo

PS02-D2-PM1-311-003 | PS02-A007

Mapping the Lunar Wake Potential Structure with Artemis Data

Shaosui XU[1#+], Andrew POPPE[1], Jasper HALEKAS[2], James MCFADDEN[1], David MITCHELL[1], Yuki HARADA[3]

[1]University of California, Berkeley, [2]The University of Iowa, [3]Kyoto University

PS02-D2-PM1-311-004 | PS02-A006 (Invited)

Interactions Between Reflected Ions and Ultra Low Frequency Plasma Waves at the Moon

Stephanie HOWARD[1#+], Jasper HALEKAS[1], William M. FARRELL[2], Karl-Heinz GLASSMEIER[3]

[1]The University of Iowa, [2]NASA Goddard Space Flight Center, [3]Technische Universitat Braunschweig

PS02-D2-PM1-311-005 | PS02-A009 (Invited)

Particle-in-cell Simulation Study on the Dayside Magnetopause in a Small-scale Magnetosphere

Hideyuki USUI[1#+], Satoki OKI[1], Yohei MIYAKE[1]

[1]Kobe University

PS02-D2-PM1-311-006 | PS02-A012

A New Perspective on Moon - Solar Wind Interaction After Chandrayaan-1 Mission

Anil BHARDWAJ[1#+]

[1]Physical Research Laboratory

PS02-D2-PM1-311-007 | PS02-A008

Solar Wind Interaction with the Lunar Surface: Observations by the Advanced Small Analyzer for Neutrals on the Rover of Chang'E-4

Martin WIESER[1#+], Stas BARABASH[1], Xiao-Dong WANG[1], Aibing ZHANG[2,3], Chi WANG[2], Wenjing WANG[2]

[1]Swedish Institute of Space Physics, [2]Chinese Academy of Sciences, [3]University of Chinese Academy of Sciences

AS12 / 12th Sasaki Symposium on Data Assimilation for Atmospheric, Oceanic, and Hydrologic Applications

Tue - 30 Jul | MR327

Time 13:30-15:30

Chair(s) Wei KANG, *Naval Postgraduate School*
Xiang-Yu HUANG, *Centre for Climate Research Singapore*

AS12-D2-PM1-327-001 | AS12-A011 (Invited)

Assimilation of GOES-R GLM Flash Extent Density in GSI EnKF for the Analysis and Forecast of the 13 July 2018 Mesoscale Convective System
Rong KONG[1], Ming XUE[1,2#+], Alex FIERRO[3], Chengsi LIU[1], Youngsun JUNG[1], Edward MANSELL[3], Donald MACGORMAN[3]
[1]The University of Oklahoma, [2]Nanjing University, [3]NOAA National Severe Storms Laboratory

AS12-D2-PM1-327-002 | AS12-A018

Development of a Mobile Water Vapor Raman Lidar and its Application for Data Assimilation
Satoru YOSHIDA[1#+], Tetsu SAKAI[1], Tomohiro NAGAI[1], Sho YOKOTA[1], Hiromu SEKO[1], Yoshinori SHOJI[1], Koichi SHIRAISHI[2]
[1]Japan Meteorological Agency, [2]Fukuoka University

AS12-D2-PM1-327-003 | AS12-A004

Research on GRAPES-3DVAR Multigrid Assimilation Scheme
Weiyu DING[1#+]
[1]Guangzhou Institute of Tropical and Marine Meteorology, CMA,CHINA

AS12-D2-PM1-327-004 | AS12-A016

Optimization of Multiple Parameters in Physics Schemes Using the Micro-genetic Algorithm in WRF for Quantitative Precipitation Forecast in the Eastern Coastal Region of Korea
Sojung PARK[1+], Seon Ki PARK[1#]
[1]Ewha Womans University

AS12-D2-PM1-327-005 | AS12-A022

Using Orthogonal Vector to Improve the Ensemble Space of the ENKF and its Effect on Data Assimilation and Forecasting
Shu-Chih YANG[1#+], Yung-Yun CHENG[1]
[1]National Central University

AS12-D2-PM1-327-006 | AS12-A023

Ensemble Transform Kalman Incremental Smoother and its Potentiality on Severe Weather Prediction
Zhe-Hui LIN[1#+], Shu-Chih YANG[1]
[1]National Central University

AS12-D2-PM1-327-007 | AS12-A019

Efficient Dynamical Downscaling of General Circulation Models Using Continuous Data Assimilation
Srinivas DESAMSETTI[1], Hariprasad DASARI[1], Sabique LANGODAN[1], Edriss TITI[2], Omar KNIO[1], Ibrahim HOTEIT[1#+]
[1]King Abdullah University of Science and Technology, [2]Texas A&M University

OS15 / Regional Oceanic Numerical Modeling and Observations

Tue - 30 Jul | MR302

Time 13:30-15:30

Chair(s) Yusuke UCHIYAMA, *Kobe University*

OS15-D2-PM1-302-001 | OS15-A025 (Invited)

Building the Kuroshio Extension Observational Network
Zhaohui CHEN[1,2#+], Lixin WU[1], Xiaopei LIN[1], Xin MA[1], Chun ZHOU[1]
[1]Ocean University of China, [2]Qingdao National Laboratory for Marine Science and Technology

OS15-D2-PM1-302-002 | OS15-A010

Deep Submesoscales: Elephant Seal and Satellite Unravel a Major Pathway Connecting the Ocean Interior to the Surface
Lia SIEGELMAN[1#+], Patrice KLEIN[2], Andrew THOMPSON[1]
[1]California Institute of Technology, [2]The French Research Institute for the Exploitation of the Sea (IFREMER)

OS15-D2-PM1-302-003 | OS15-A032

Numerical Study of Multiple-scale Temporal Variations in 2016 Wind-wave and Wind in the Coastal Area Along the Northern Jiangsu Province, China
Xu JIN[1#+]
[1]Nanjing University of Information Science & Technology

OS15-D2-PM1-302-004 | OS15-A012

Global Navigational Satellite System Phase Altimetry of the Sea Level: Systematic Bias Effect Caused by Sea Surface Waves
Yaroslaw ILYSHIN[1,2#+], Artem PADOKHIN[3], Vladimir SMOLOV[4]
[1]Moscow State University, [2]Kotlenikov Radio Engineering Institute, Moscow, Russia, [3]Lomonosov Moscow State University, [4]Marine Hydrophysical Institute

OS15-D2-PM1-302-005 | OS15-A035

SAM Effects on Zonally Asymmetric Response of Ocean Mixing, Nutrients and Production in the Southern Ocean
Hui GAO[1#+], Changming DONG[1,2], Meibin JIN[1], Hui ZHAO[3]
[1]Nanjing University of Information Science & Technology, [2]University of California, Los Angeles, [3]Guangdong Ocean University

OS15-D2-PM1-302-006 | OS15-A011

Mass and Heat Transport Generated by the Kuroshio and Tides Investigated with a High Resolution Downscaled Regional Oceanic Model
Eiji MASUNAGA[1#+], Waku KIMURA[1], Taichi KOSAKO[2], Yusuke UCHIYAMA[3]
[1]Ibaraki University, [2]Port and Airport Research Institute, [3]Kobe University

OS15-D2-PM1-302-007 | OS15-A034

SST Anomalies in the Mozambique Channel
Guoqing HAN[1#+], Changming DONG[1,2], Junde LI[3], Jingsong YANG[3], Yu LIU[1]
[1]Nanjing University of Information Science & Technology, [2]University of California, Los Angeles, [3]State Oceanic Administration

OS05 / Coastal and Estuarine Processes

Tue - 30 Jul | Nicoll 1

Time 13:30-15:30

Chair(s) Atsushi FUJIMURA, *University of Guam*
Sung Yong KIM, *Korea Advanced Institute of Science and Technology*

OS05-D2-PM1-Nicoll 1-001 | OS05-A011

Monitoring and Modeling Pago Bay, Guam
Atsushi FUJIMURA[1#+], Christina COMFORT[2], Gordon WALKER[2], Margaret MCMANUS[2], Chris OSTRANDER[3], Terry DONALDSON[1]
[1]University of Guam, [2]University of Hawaii, [3]University of Utah

OS05-D2-PM1-Nicoll 1-002 | OS05-A015

Eddy-current Interaction in the Leeuwin Current off the Lower-west Coast of Australia
Qin-Yan LIU[1#+]
[1]Chinese Academy of Sciences

OS05-D2-PM1-Nicoll 1-003 | OS05-A008

Submesoscale Surface Tidal, Vortical, and Residual Circulations in a Semi-enclosed Bay
Sung Yong KIM[1#+], Kyeong Ok KIM[2]
[1]Korea Advanced Institute of Science and Technology, [2]Korea Institute of Ocean Science and Technology

OS05-D2-PM1-Nicoll 1-004 | OS05-A001

Seasonal Behaviour of Tidal Damping and Residual Water Level Slope in the Yangtze River Estuary: Identifying the Critical Position and River Discharge for Maximum Tidal Damping
Huayang CAI[1#+]
[1]Sun Yat-sen University

OS05-D2-PM1-Nicoll 1-005 | OS05-A002

Temporally Variable Trace Metal Speciation Discharged into Coastal Waters Surrounding Taiwan
Kuo-Tung JIANN[1#+]
[1]National Sun Yat-sen University

OS05-D2-PM1-Nicoll 1-006 | OS05-A004

Pelagic Community Respiration and its Response to Environmental Factors in a Subtropical Estuary of China
Biyan HE[1#+], Guangnan OU[1]
[1]Jimei University

AS17 / Atmospheric Chemistry in Highly Polluted Environments: Emissions, Fates, and Impacts

Tue - 30 Jul | MR309

Time 13:30-15:30

Chair(s) Meng GAO, *Hong Kong Baptist University*
Huan LIU, *Tsinghua University*
Hongliang ZHANG, *Louisiana State University*

AS17-D2-PM1-309-001 | AS17-A034 (Invited)

Seasonal Prediction of Indian Wintertime Aerosol Pollution Using the Ocean Memory Effect
Meng GAO[1#+]
[1]Hong Kong Baptist University

AS17-D2-PM1-309-002 | AS17-A001

A Numerical Simulation Study on the Impact of Smoke Aerosols from Russian Forest Fires on the Air Pollution over Asia
Qingzhe ZHU[1#+]
[1]Lanzhou University

AS17-D2-PM1-309-003 | AS17-A004

Effectiveness of Regional Emission Control Measures on Submicron Aerosol Pollution During 2016 G20 Summit in Hangzhou
Jun HE[1#+]
[1]University of Nottingham Ningbo China

AS17-D2-PM1-309-004 | AS17-A006 (Invited)

Optimizing Temporal-spatial Distribution of Truck Emission Inventories Using Big Data Analysis
Huan LIU[1#+]
[1]Tsinghua University

AS17-D2-PM1-309-005 | AS17-A021

Long-range Transport of Atmospheric Speciated Mercury in South China Sea
Ming-Jie YEH[1#+], Chung-Shin YUAN[1], Hung KUO-NING[1], Chen TING-SHUO[1]
[1]National Sun Yat-sen University

AS17-D2-PM1-309-006 | AS17-A007

Temporal Characteristics and Vertical Distribution of Atmospheric Ammonia and Ammonium in Winter in Beijing
Qingqing WANG[1#+], Qi ZHANG[2], Zhiqiang MA[3], Baozhu GE[4], Conghui XIE[4], Wei ZHOU[4], Jian ZHAO[4], Weiqi XU[4], Wei DU[4], Pingqing FU[5], James LEE[6], Eiko NEMITZ[7], Nicholas COWAN[7], Neil MULLINGER[7], Xueling CHENG[4], Libo ZHOU[4], Siyao YUE[4], Zifa WANG[4], Yele SUN[4]
[1]Institute of Atmospheric Physics, Chinese Academy of Sciences, [2]University of California, Davis, [3]China Meteorological Administration, [4]Chinese Academy of Sciences, [5]Tianjin University, [6]University of York, [7]Centre for Ecology & Hydrology

AS17-D2-PM1-309-007 | AS17-A028

Changes in Atmospheric Carbon Dioxide Concentration and its Delta 13carbon Values of Beijing City Prior to and After Heating in Autumn 2018
Xingkai XU[1,2#+], Aiguo LI[1]
[1]Chinese Academy of Sciences, [2]University of Chinese Academy of Sciences

IG04 / Natural Hazards and Disaster Risk: Current and Historical Perspectives

Tue - 30 Jul | MR323

Time 13:30-15:30

Chair(s) James TERRY, *Zayed University*
Fiona WILLIAMSON, *Singapore Management University*

IG04-D2-PM1-323-001 | IG04-A038

The Sichuan Hard Road, A Documentary Film About the Wenchuan 2008 Earthquake
Isaac KERLOW[1#+]
[1]Earth Observatory of Sinagpore

IG04-D2-PM1-323-002 | IG04-A039

Factors That Influence the Behavioral Intention of Residents of Barangay Pembo, Makati City, Philippines to Relocate from the West Valley Fault

Charmaine VILLAMIL[1#+], Edmund CENTENO[2]
[1]*Department of Science and Technology - Philippine Institute of Volcanology and Seismology (DOST-PHIVOLCS),* [2]*University of the Philippines Los Baños*

IG04-D2-PM1-323-003 | IG04-A044

Second Oldest Description of Surfing Pyroclastic Surges During the Common Era Unveiled in Forgotten Written Sources in Indonesia

Bachtiar MUTAQIN[1,2#+], Franck LAVIGNE[2], Sunarto SUNARTO[1]
[1]*Universitas Gadjah Mada,* [2]*Université Paris 1 Panthéon Sorbonne*

IG04-D2-PM1-323-004 | IG04-A033

Distribution of Tsunami Interevent Times in the Indian Ocean

Sumanta PASARI[1#+]
[1]*BITS Pilani*

IG04-D2-PM1-323-005 | IG04-A002 (Invited)

Records and Damage from Recent and Historical Trans-oceanic Tsunamis

Kenji SATAKE[1#+]
[1]*The University of Tokyo*

IG04-D2-PM1-323-006 | IG04-A017

What is the Best Way to Model a Landslide? Or a Tsunami?

Vena Pearl BONGOLAN[1,2#+], Joshua Frankie RAYO[1], Jose Marie Antonio MIÑOZA[1]
[1]*University of the Philippines Diliman,* [2]*ICSU Regional Office for Asia and the Pacific*

IG04-D2-PM1-323-007 | IG04-A011

Perceptions of Tsunami Risk and Efficacy and Evacuation Intentions in Java, Bali, Lombok, and Sumba Indonesia

Sarah HALL[1#+], Ron HARRIS[2], Carolus PRASETYADI[3], Gilang SETIADI[4], Chad EMMETT[2], Amelia COPE[1], William MESERVY[5], Irina RAFLIANA[6], Arif AHMAD[7]
[1]*Utah Valley University,* [2]*Brigham Young University,* [3]*University Pembangan National,* [4]*UPN Veteran Yogyakarta,* [5]*Institut de Ciències del Mar (ICM-CSIC),* [6]*Indonesian Institute of Sciences,* [7]*Kompas*

SS01 / Satellite Observations for Tropical Cyclone Research

Tue - 30 Jul | Nicoll 3

Time 13:30-15:30
Chair(s) Tsengdar LEE, *NASA*

SS01-D2-PM1-Nicoll 3-001 | SS01-A002 (Invited)

Assimilation of TC Inner Core Surface Winds by CYGNSS into Forecast Models

Christopher RUF[1,2#+]
[1]*University of Michigan,* [2]*National Aeronautics and Space Administration*

SS01-D2-PM1-Nicoll 3-002 | SS01-A001 (Invited)

Assimilation of Passive and Active Sensors on Satellite to Improve Tropical Cyclone Forecasts

Kozo OKAMOTO[1#+]
[1]*Japan Meteorological Agency*

SS01-D2-PM1-Nicoll 3-003 | SS01-A003 (Invited)

Raindrop Size Distribution Characteristics of Typhoon and Non-typhoon Precipitations Observed over North Taiwan

Jayalakshmi JANAPATI[1], Balaji Kumar SEELA[1,2], Pay-Liam LIN[1#+], Pao WANG[2,3]
[1]*National Central University,* [2]*Academia Sinica,* [3]*University of Wisconsin-Madison*

SS01-D2-PM1-Nicoll 3-004 | SS01-A004 (Invited)

Future Challenges in Tropical Cyclone Models and the Emphasis on Integrated Digital Systems

Ben EVANS[1#+]
[1]*Australian National University*

AS06 / Convection and Its Effects on Weather and Climate

Tue - 30 Jul | MR308

Time 16:00-18:00
Chair(s) Ji NIE, *Peking University*

AS06-D2-PM2-308-001 | AS06-A008 (Invited)

A Model for the Relationship Between Humidity, Instability and Precipitation in the Tropics

Martin SINGH[1#+], Robert WARREN[1], Christian JAKOB[1]
[1]*Monash University*

AS06-D2-PM2-308-002 | AS06-A019 (Invited)

Towards Robust Computation of Convective Clouds: Developing Advanced Turbulence Parameterizations

Xiaoming SHI[1#+]
[1]*Hong Kong University of Science and Technology*

AS06-D2-PM2-308-003 | AS06-A009

Modes of Tropical Convection and Their Roles in Transporting Energy and Moisture

Jia-Yuh YU[1#], Yi-Chien CHEN[1+]
[1]*National Central University*

AS06-D2-PM2-308-004 | AS06-A005

Similarity Among Atmospheric Thermal Stratifications over Elevated Surfaces Under Radiative-convective Equilibrium

Ji NIE[1#+], Yan XIA[1], Shineng HU[2], Jun YANG[1], Ding MA[3]
[1]*Peking University,* [2]*University of California San Diego,* [3]*Columbia University*

AS06-D2-PM2-308-005 | AS06-A014

On the Formation Mechanism for Wintertime Extreme Precipitation Events over the Southeastern Tibetan Plateau

Wenyu HUANG[1#+], Tianpei QIU[1]
[1]*Tsinghua University*

AS06-D2-PM2-308-006 | AS06-A020

Quasi-2-day Convective Disturbances over the Equatorial Indian Ocean and Western Pacific

Hungjui YU[1#+], Hung-Chi KUO[1], Richard JOHNSON[2], Paul CIESIELSKI[2]
[1]*National Taiwan University,* [2]*Colorado State University*

AS06-D2-PM2-308-007 | AS06-A015

Interannual Variation and Regime Shift of the Evaporative Moisture Sources for Wintertime Precipitation over Southern China

Zifan YANG[1+], Wenyu HUANG[1#]
[1]*Tsinghua University*

AS30 / Extreme Weather Resiliency: Prediction and Response Strategies

Tue - 30 Jul | MR304

Time 16:00-18:00
Chair(s) Pay-Liam LIN, *National Central University*

AS30-D2-PM2-304-001 | AS30-A006 (Invited)

Simulation and Projection of Atmospheric River Activity and Circulation Along the North American Northeast Coast Using GFDL HiRAM
Huang-Hsiung HSU[1#+], Ying-Ting CHEN[1]
[1]Academia Sinica

AS30-D2-PM2-304-002 | AS30-A028 (Invited)

Impacts of Changing Climate on Wildfire Activity and Carbonaceous Aerosol Loading
Sarah LU[1#+], Huang-Hsiung HSU[2], Chin-An LIN[1]
[1]University at Albany - State University of New York, [2]Academia Sinica

AS30-D2-PM2-304-003 | AS30-A007

Impacts of Cumulus Schemes on the Propagation of MJO
Mei-Yu CHANG[1#+], Pay LIAM[2], Tim LI[3], Ming-Dah CHOU[2]
[1]Central Weather Bureau, [2]National Central University, [3]University of Hawaii

AS30-D2-PM2-304-004 | AS30-A003

Warming Trends in Summer Heatwaves Seen in the Central England Temperature Timeseries
David STAINFORTH[1#], Sandra CHAPMAN[2+], Nicholas WATKINS[2]
[1]London School of Economics, [2]University of Warwick

AS30-D2-PM2-304-005 | AS30-A020

An Application of Multi-centre Grand Ensemble for Hazard Risk Assessment of Land-impacting Typhoon in the Western North Pacific
Kelvin NG[1#+], Gregor C. LECKEBUSCH[1]
[1]University of Birmingham

AS30-D2-PM2-304-006 | AS30-A001

A Spatial Assessment of Typhoon Vulnerability Across Vietnam, Based on Hazard Exposure and Adaptive Capacity
Kim-Anh NGUYEN[1,2#+], James TERRY[3], Yuei-An LIOU[1]
[1]National Central University, [2]Vietnam Academy of Science and Technology, [3]Zayed University

AS30-D2-PM2-304-007 | AS30-A013

The Characteristics and Application of Radar Refractivity During 2008 SoWMEX
Hsiu-Wei HSU[1+], Ya-Chien FENG[2], Pay-Liam LIN[1#], Yu-Chieng LIOU[1]
[1]National Central University, [2]Colorado State University

AS30-D2-PM2-304-008 | AS30-A010

Dynamic Downscaling Studies on Diurnal Variation of Mesoscale Circulation and Precipitation During Mei-Yu Season
Pay-Liam LIN[1#+], Chung-Yin WANG[1], Chuan-Chi TU[1]
[1]National Central University

AS44 / Advances in Remote Sensing and Modeling of Fires and Tropospheric Composition in Asia

Tue - 30 Jul | MR303

Time 16:00-18:00
Chair(s) Jun WANG, *The University of Iowa*
Richard ECKMAN, *National Aeronautics and Space Administration*

AS44-D2-PM2-303-001 | AS44-A019

A Simulation of Acetonitrile to Quantify Effects of Siberian Forest Fires on PM2.5 Concentrations in Korea During the KORUS-AQ Campaign
Rokjin J. PARK[1#+], Hyeonmin KIM[1], Seungun LEE[1], Yujin OK[1], Chang-Keun SONG[2]
[1]Seoul National University, [2]Ulsan National Institute of Science and Technology

AS44-D2-PM2-303-002 | AS44-A009 (Invited)

Aerosol Optical Characteristics and its Vertical Distribution Under Enhanced Haze Pollution Events Affected by Different Aerosol Transportation over Yangtze River Delta Region in Eastern China
Huizheng CHE[1#+]
[1]Chinese Academy of Meteorological Sciences

AS44-D2-PM2-303-003 | AS44-A015 (Invited)

Long-term Variation of Satellite-based PM2.5 and Influence Factors over East China
Qianshan HE[1#+]
[1]Shanghai Meteorological Service

AS44-D2-PM2-303-004 | AS44-A029

Satellite Remote Sensing of Aerosols over East Asia: Characterization and Limitation
Minghui TAO[1#+]
[1]China University of Geosciences

AS44-D2-PM2-303-005 | AS44-A014

Satellite-based Estimation of Surface PM/NO2/O3 Concentrations in Eastern China
Kai QIN[1#+]
[1]China University of Mining and Technology

AS44-D2-PM2-303-006 | AS44-A027

The GaoFen-5 Satellite for Air Quality Monitoring in China: General Performance and Preliminary Results
Liangfu CHEN[1#+]
[1]Chinese Academy of Sciences

SE01 / Paleomagnetism and Rock Magnetism Applied to Solving Geological, Geophysical, and Environmental Problems

Tue - 30 Jul | MR330

Time 16:00-18:00

Chair(s) Martin CHADIMA, *Advanced Geoscience Instruments Company*

SE01-D2-PM2-330-001 | SE01-A008 (Invited)

Paleomagnetic Directions from Fuji Volcano, Japan : Contributions to Secular Variation

Akira BABA[1#+], Hidetoshi SHIBUYA[2]

[1]Mount Fuji Research Institute Yamanashi Prefectural Government, [2]Kumamoto University

SE01-D2-PM2-330-002 | SE01-A004

Paleomagnetic Secular Variations During the Past 40,000 Years from the Bay of Bengal

Shishun WANG[1#+], Liao CHANG[1], Pengfei XUE[1], Shengfa LIU[2], Xuefa SHI[2], Jianxing LIU[2], Jinhua LI[3]

[1]Peking University, [2]State Oceanic Administration, [3]Chinese Academy of Sciences

SE01-D2-PM2-330-003 | SE01-A017

Domain State Diagnosis in Rock Magnetism: Evaluation of Potential Alternatives to the Day Diagram

Andrew ROBERTS[1#+], Pengxiang HU[1], Richard HARRISON[2], David HESLOP[1], Adrian MUXWORTHY[3], Hirokuni ODA[4], Tetsuro SATO[5], Lisa TAUXE[6], Xiang ZHAO[1]

[1]Australian National University, [2]University of Cambridge, [3]Imperial College London, [4]National Institute of Advanced Industrial Science and Technology, [5]Tohoku University, [6]University of California, San Diego

SE01-D2-PM2-330-004 | SE01-A006

Paleomagnetic Study of the IODP Site U1335 Sediments in the Eastern Equatorial Pacific - Relative Paleointensity and Inclination Anomaly over the Last 8 Myr

Toshitsugu YAMAZAKI[1#], Yuhji YAMAMOTO[2+]

[1]The University of Tokyo, [2]Kochi University

SE01-D2-PM2-330-005 | SE01-A015

Detrital Remanent Magnetization of Sedimentary Magnetic Inclusions: Implications for Relative Paleointensity Determinations

Liao CHANG[1#+], Hoabin HONG[1]

[1]Peking University

SE01-D2-PM2-330-006 | SE01-A009

Reductive Chemical Demagnetization: A New Method for Magnetic Cleaning

Hidetoshi SHIBUYA[1#+], Chisato ANAI[1], Nobutatsu MOCHIZUKI[1]

[1]Kumamoto University

SE01-D2-PM2-330-007 | SE01-A018

FORCsensei: A Machine Learning Framework to Estimate Optimized First-order Reversal Curve Distributions

Andrew ROBERTS[1#+], David HESLOP[1], Hirokuni ODA[2], Xiang ZHAO[1], Richard HARRISON[3], Adrian MUXWORTHY[4], Pengxiang HU[1], Tetsuro SATO[5]

[1]Australian National University, [2]National Institute of Advanced Industrial Science and Technology, [3]University of Cambridge, [4]Imperial College London, [5]Tohoku University

SE16 / Integrating Our Understanding of the 2018 Mw 7.5 Palu Earthquakes and Its Tsunami

Tue - 30 Jul | MR329

Time 16:00-18:00

Chair(s) Shengji WEI, *Nanyang Technological University*
Mudrik DARYONO, *Indonesian Institute of Sciences - LIPI*

SE16-D2-PM2-329-001 | SE16-A001 (Invited)

Repetition of the Twin 1907-1909 and the Recent Mw6.2 2012-Mw7.4 2018 Earthquakes on the Palukoro Fault, Central Sulawesi, Indonesia

Mudrik DARYONO[1#+], Danny NATAWIDJAJA[2]

[1]Indonesian Institute of Sciences - LIPI, [2]Indonesian Institute of Sciences

SE16-D2-PM2-329-002 | SE16-A012

Seismic Tomography of the Source Area of the 2018 Mw 7.5 Palu Earthquake

Ping TONG[1#+], Muzli MUZLI[1,2], Shaolin LIU[1], Shengji WEI[1], Rahmat TRIYONO[2]

[1]Nanyang Technological University, [2]Meteorological, Climatological, and Geophysical Agency

SE16-D2-PM2-329-003 | SE16-A009

A Ray Theory Based Travel Time Calibration Procedure and its Application to the 2018 Mw 7.5 Sulawesi, Indonesia Earthquake

Hongyu ZENG[1#+], Shengji WEI[1]

[1]Nanyang Technological University

SE16-D2-PM2-329-004 | SE16-A010

Complex Super-shear Rupture Process of the 2018 Mw7.5 Palu Earthquake Revealed by the Multiple Point Source Inversions on Teleseismic Waveform

Qibin SHI[1+], Shengji WEI[1#], Hongyu ZENG[1]

[1]Nanyang Technological University

SE16-D2-PM2-329-005 | SE16-A011 (Invited)

The 2018 Mw7.5 Palu Earthquake, a Gradually Accelerating Super-shear Rupture Stopped by Stress Shadows in a Complex Fault System

Shengji WEI[1#+], Guangcai FENG[2], Hongyu ZENG[1], Stacey MARTIN[1], Qibin SHI[1], Muzli MUZLI[1,3], Teng WANG[4], Eric LINDSEY[1], Rahmat TRIYONO[3], Judith HUBBARD[1], Paul TAPPONNIER[5], Kerry SIEH[1]

[1]Nanyang Technological University, [2]Central South University, [3]Meteorological, Climatological, and Geophysical Agency, [4]Peking University, [5]China Earthquake Administration

SE16-D2-PM2-329-006 | SE16-A004

Hypocenter Relocation of the Aftershocks of the Palu Earthquake, Sulawesi, (Mw 7.5, September 28, 2018) Using Regional Seismic Station

Pepen SUPENDI[1+], Andri Dian NUGRAHA[1#], Sri WIDIYANTORO[1], Nanang T PUSPITO[1], Daryono DARYONO[2], Samsul H WIYONO[2], Shindy ROSALIA[1], Kadek PALGUNADI[3], Hasbi Ash SHIDDIQI[4]

[1]Bandung Institute of Technology, [2]Agency for Meteorology, Climatology, and Geophysics (BMKG), [3]King Abdullah University of Science and Technology, [4]University of Bergen

PS18 / Science and Exploration of Mars and Venus

Tue - 30 Jul | MR310

Time 16:00-18:00
Chair(s) Shuanggen JIN, *Nanjing University of Information Science & Technology*

PS18-D2-PM2-310-001 | PS18-A002

A Study on Martian Atmospheric Dust and Water Ice Contributions and Their Inter-relations Using MCC, MCS and MARCI Observations
Bijay GUHA[1+], Jagabandhu PANDA[1#]
[1]National Institute of Technology, Rourkela

PS18-D2-PM2-310-002 | PS18-A028

Localtime-dependent Structures in the Venusian Atmosphere Revealed by Akatsuki Radio Occultation Measurements
Takeshi IMAMURA[1#+], Hiroki ANDO[2], Katsuyuki NOGUCHI[3], Raj CHOUDHARY[4], Bernd HÄUSLER[5], Martin PÄTZOLD[6], Silvia TELLMANN[6]
[1]The University of Tokyo, [2]Kyoto Sangyo University, [3]Nara Women's University, [4]Vikram Sarabhai Space Centre, [5]Universität der Bundeswehr München, [6]Rhenish Institute for Environmental Research

PS18-D2-PM2-310-003 | PS18-A017

Spatial and Temporal Variability of Venus Cloud Opacity as Viewed with Akatsuki IR2
Takehiko SATOH[1#+], Takao SATO[2], Choon Wei VUN[3], Takeshi HORINOUCHI[4], Javier PERALTA[1]
[1]Japan Aerospace Exploration Agency, [2]Hokkaido Information University, [3]SOKENDAI, [4]Hokkaido University

PS18-D2-PM2-310-004 | PS18-A014

The VenSpec Suite on the ESA Envision Mission to Venus
Jorn HELBERT[1#+], AnnCarine VANDAELE[2], Emmanuel MARCQ[3], Thomas WIDEMANN[4], Colin WILSON[5], Richard GHAIL[6]
[1]German Aerospace Center, [2]Belgian Institute for Space Aeronomy, [3]National Center for Scientific Research (CNRS)/ Institut Pierre Simon Laplace (IPSL)/ Université de Versailles Saint-Quentin-en-Yvelines (UVSQ) / University Pierre et Marie Curie (UPMC), [4]Paris Observatory, [5]Oxford University, [6]University of London

PS18-D2-PM2-310-005 | PS18-A024

Ion Escape at Venus: Past, Present and Future Observations
Shannon CURRY[1#+], Janet LUHMANN[1], Y.J. MA[2], Stuart BALE[1], Jacob GRUESBECK[3], Trevor BOWEN[1], Phyllis WHITTLESEY[1], Roberto LIVI[1], Davin LARSON[1]
[1]University of California, Berkeley, [2]University of California, Los Angeles, [3]NASA Goddard Space Flight Center

PS18-D2-PM2-310-006 | PS18-A026

The Venus Ionosphere as Seen by the Akatsuki Radio Science Experiment
Martin PATZOLD[1#+], Takeshi IMAMURA[2], Hiroki ANDO[3], Bernd HAEUSLER[4], Silvia TELLMANN[5], Michael K. BIRD[6], Janusz OSCHLISNIOK[5], Kerstin PETER[5]
[1]University of Cologne, [2]The University of Tokyo, [3]Kyoto Sangyo University, [4]Universität der Bundeswehr München, [5]Rhenish Institute for Environmental Research, [6]University of Bonn

PS18-D2-PM2-310-007 | PS18-A013

Comparison of Horizontal Distributions of Temperature and UV Absorbers at the Venus Cloud-tops
Shinichiro KAWASE[1#+], Makoto TAGUCHI[1], Tetsuya FUKUHARA[1], Yeon Joo LEE[2], Atsushi YAMAZAKI[3]
[1]Rikkyo University, [2]The University of Tokyo, [3]Japan Aerospace Exploration Agency

PS11 / Exoplanets: Observations, Theories, and Modeling

Tue - 30 Jul | MR311

Time 16:00-18:00
Chair(s) Jun YANG, *Peking University*

PS11-D2-PM2-311-001 | PS11-A001 (Invited)

UVSPEX Onboard WSO-UV for Earth-like Upper Atmosphere Observation
Shingo KAMEDA[1#+], Takanori KODAMA[2], Yui KAWASHIMA[3], Masaki KUWABARA[4], Go MURAKAMI[4], Keigo ENYA[4], Masahiro IKOMA[5], Norio NARITA[6], Alexander TAVROV[7], Oleg KORABLEV[7,8], Mikhail SACHKOV[9], Naoki TERADA[10], Hitoshi FUJIWARA[11], Motohide TAMURA[5,6], Jun NISHIKAWA[6]
[1]Rikkyo University, [2]Université de Bordeaux, [3]SRON Netherlands Institute for Space Research, [4]Japan Aerospace Exploration Agency, [5]The University of Tokyo, [6]National Astronomical Observatory of Japan, [7]Space Research Institute of Russian Academy of Sciences, [8]Moscow Institute of Physics and Technology, [9]Institute of Astronomy of the Russian Academy of Sciences, [10]Tohoku University, [11]Seikei University

PS11-D2-PM2-311-002 | PS11-A009

The Ozone Layer over Tidal-locking Exoplanets Around M Dwarfs
Yongyun HU[1#+], Jun YANG[1], Yangcheng LUO[1]
[1]Peking University

PS11-D2-PM2-311-003 | PS11-A005 (Invited)

Formation of Super-earths by Tidally Forced Turbulence
Cong YU[1#+]
[1]Sun Yat-sen University

PS11-D2-PM2-311-004 | PS11-A008 (Invited)

The Evolution of Planetary System After the Death of the Sun
Di-Chang CHEN[1], Ji-Lin ZHOU[1#], Ji-Wei XIE[1+]
[1]Nanjing University

PS11-D2-PM2-311-005 | PS11-A010

Oscillatory Re-orientation of a Slowly Rotating Planet Due to Continental Glaciation
Yonggang LIU[1#+]
[1]Peking University

PS11-D2-PM2-311-006 | PS11-A002

Planetary Climate Dynamics over a Wide Range of Orbital and Atmospheric Characteristics
Yohai KASPI[1#+], Ilai GUENDELMAN[1]
[1]Weizmann Institute of Science

PS11-D2-PM2-311-007 | PS11-A003

Transition from Eyeball to Snowball Driven by Sea-ice Drift on Tidally Locked Terrestrial Planets
Jun YANG[1#+]
[1]Peking University

AS18 / Organic Aerosols in the Atmosphere

Tue - 30 Jul | MR327

Time 16:00-18:00

Chair(s) Xiang DING, *Guangzhou Institute of Geochemistry, Chinese Academy of Sciences*
Kin Fai HO, *The Chinese University of Hong Kong*

AS18-D2-PM2-327-001 | AS18-A012 (Invited)

Amines in PM2.5 in Shanghai: Concentrations and Seasonal Variation
Jialiang FENG[1#+]
[1]Shanghai University

AS18-D2-PM2-327-002 | AS18-A002

Size-segregated Characteristics of OC, EC and Organic Matters in PM Emitted from Different Types of Ships in China
Fan ZHANG[1#+], Hai GUO[1]
[1]The Hong Kong Polytechnic University

AS18-D2-PM2-327-003 | AS18-A011

Observation of SOA Tracers at a Mountainous Site in Hong Kong: Chemical Characteristics, Origins and Implication on Particle Growth
Xiaopu LYU[1#+], Hai GUO[1]
[1]The Hong Kong Polytechnic University

AS18-D2-PM2-327-004 | AS18-A005

Characteristics and Sources of Organic Aerosols in Hong Kong: Insights from the Measurement of High-resolution Time-of-flight Aerosol Mass Spectrometer
Dawen YAO[1+], Xiaopu LYU[1], Hai GUO[1#], Tao WANG[1], Allen GOLDSTEIN[2]
[1]The Hong Kong Polytechnic University, [2]University of California at Berkeley

AS18-D2-PM2-327-005 | AS18-A008 (Invited)

Isoprene SOA over China: Observation and Implication
Xiang DING[1#+]
[1]Guangzhou Institute of Geochemistry, Chinese Academy of Sciences

AS18-D2-PM2-327-006 | AS18-A010

High-resolution Analysis of Vehicle-related Organic Aerosols Observed at a Roadside Site in Hong Kong with the Application of TAG-ToF-MS
Hai GUO[1#+]
[1]The Hong Kong Polytechnic University

AS18-D2-PM2-327-007 | AS18-A007

1-octanol Water Partition Coefficient as a Predictor of Liquid-liquid Phase Separation in Mixed Organic/Inorganic Particles
Liudongqing YANG[1+], Mikinori KUWATA[1#]
[1]Nanyang Technological University

AS18-D2-PM2-327-008 | AS18-A003

Characterisation of SVOCs from Fuel, Lubricant and Diesel Engine Emissions Utilizing GC×GC-ToF-MS
Zhirong LIANG[1#+], Hai GUO[1]
[1]The Hong Kong Polytechnic University

OS15 / Regional Oceanic Numerical Modeling and Observations

Tue - 30 Jul | MR302

Time 16:00-18:00

Chair(s) Yusuke UCHIYAMA, *Kobe University*
Changming DONG, *Nanjing University of Information Science & Technology*

OS15-D2-PM2-302-001 | OS15-A038

Submesoscale Instability in Idealized Mesoscale Eddies
Changming DONG[1,2#+], Xingliang JIANG[1]
[1]Nanjing University of Information Science & Technology, [2]University of California, Los Angeles

OS15-D2-PM2-302-002 | OS15-A017

Joint Effects of Physical and Biogeochemical Processes on the Formation of Hypoxia in the Pearl River Estuary
Zhongren ZHANG[1#+], Jia-Tang HU[1], Shiyu LI[1], Bin WANG[2]
[1]Sun Yat-sen University, [2]Dalhousie University

OS15-D2-PM2-302-003 | OS15-A021

Submesoscale-resolving Observations in South China Sea by Fast-sampling Underwater Gliders
Ke MA[1+], Zhaohui CHEN[1,2#], Yanhui WANG[3], Zhao JING[1], Shuxin WANG[3], Lixin WU[1]
[1]Ocean University of China, [2]Qingdao National Laboratory for Marine Science and Technology, [3]Tianjin University

OS15-D2-PM2-302-004 | OS15-A024

Observational Study on Turbulent Heat Flux Within a Warm Eddy in the Kuroshio Extension
Yueqi ZHANG[1,2+], Zhaohui CHEN[1,2#], Bin WANG[3]
[1]Ocean University of China, [2]Qingdao National Laboratory for Marine Science and Technology, [3]National Ocean Technology Center

OS15-D2-PM2-302-005 | OS15-A026

Mapping of Sea Ice Leads and Melt Ponds from Multi-angle Imaging Spectro-radiometer Using Super-resolution Restoration
Yu TAO[1#+], Jan-Peter MULLER[1], Jennifer SUTHERLAND[1]
[1]University College London

OS15-D2-PM2-302-006 | OS15-A027

Numerical Study of Coupled Air-sea Interaction During Typhoon Kalmaegi in the South China Sea
Kenny T.C. LIM KAM SIAN[1#+], Changming DONG[1,2], Hailong LIU[3]
[1]Nanjing University of Information Science & Technology, [2]University of California, Los Angeles, [3]Shanghai Jiao Tong University

OS15-D2-PM2-302-007 | OS15-A015

An Atmosphere-wave Regional Coupled Model over the East China Sea
Delei LI[1#+], Joanna STANEVA[2], Sebastian GRAYEK [2], Arno BEHRENS[2], Baoshu YIN[1]
[1]Chinese Academy of Sciences, [2]Helmholtz Zentrum Geesthacht

OS05 / Coastal and Estuarine Processes
OS12 / Dynamic Coasts, Past, Present, Future

Tue - 30 Jul | Nicoll 1

Time 16:00-18:00

Chair(s) Atsushi FUJIMURA, *University of Guam*
Serena LEE, *Griffith University*

OS05-D2-PM2-Nicoll 1-001 | OS05-A013

Experimental Study of Periodic Waves Passing Through Floating Vegetation Domain
Xiaochun TANG[1+], Pengzhi LIN[2], Philip Li-Fan LIU[1#]
[1]National University of Singapore, [2]Sichuan University

OS05-D2-PM2-Nicoll 1-002 | OS05-A017

Recent Development in Coastal Oceanography
Xiao Hua WANG[1#+]
[1]University of New South Wales

OS05-D2-PM2-Nicoll 1-003 | OS05-A018 (Invited)

Distribution and Source Estimation of Polycyclic Aromatic Hydrocarbons in the Coastal Sediment Cores from Seto Inland Sea, Japan
Hiroaki TSUJI[1+], Waqar JADOON[1,2], Yoko NUNOME[1], Hideo YAMAZAKI[3], Kazuhiko TAKEDA[1], Hiroshi SAKUGAWA[1#]
[1]Hiroshima University, [2]Hazara University, [3]Kindai University

OS12-D2-PM2-Nicoll 1-004 | OS12-A001

Rock Oyster 14C Chronologies for Comparing Relative Sea Levels in Thailand Since the Mid-Holocene
James TERRY[1#+], Grahame OLIVER[2]
[1]Zayed University, [2]Nanyang Technological University

OS12-D2-PM2-Nicoll 1-005 | OS12-A010

Tidal Responses to Future Sea-level Trend on the Shelf of the South Yellow Sea
Xi FENG[1#+]
[1]Hohai University

OS12-D2-PM2-Nicoll 1-006 | OS12-A006

Extending Instrumental Sea-level Records in Southeast Asia Using Coral Microatolls
Jedrzej MAJEWSKI[1#+], Aron MELTZNER[1], Adam SWITZER[1], Danny NATAWIDJAJA[2], Bambang SUWARGADI[2], Benjamin HORTON[1,3]
[1]Nanyang Technological University, [2]Indonesian Institute of Sciences, [3]Rutgers University

AS17 / Atmospheric Chemistry in Highly Polluted Environments: Emissions, Fates, and Impacts

Tue - 30 Jul | MR309

Time 16:00-18:00

Chair(s) Lin ZHANG, *Peking University*
Jianlin HU, *Nanjing University of Information Science & Technology*
Shovan Kumar SAHU, *Tsinghua University*

AS17-D2-PM2-309-001 | AS17-A037 (Invited)

Background and Anthropogenic Source Contributions to 2016-2017 Surface Ozone Pollution over China
Lin ZHANG[1#+], Xiao LU[1]
[1]Peking University

AS17-D2-PM2-309-002 | AS17-A020

Top-down NOx Estimation from OMI Sensor over East Asia
Kyung Man HAN[1+], Chul Han SONG[1#]
[1]Gwangju Institute of Science and Technology

AS17-D2-PM2-309-003 | AS17-A018

Surface Ozone Pollution and the Meteorological Influences in the Yangtze River Delta Region, China
Min XIE[1#+], Tijian WANG[1], Gao DA[1], Lei SHU[1]
[1]Nanjing University

AS17-D2-PM2-309-004 | AS17-A023

Behavior of Ground Level Ozone and its Association with Precursors and Meteorology in Delhi, India
Komal SHUKLA[1#+], Mukesh kumar KHARE[2]
[1]Indian Institute of Technology Delhi, India, [2]Indian Institute of Technology Delhi

AS17-D2-PM2-309-005 | AS17-A012

Modeling Analysis of O3–precursor Relationships in the Nanjing Metropolitan Area of China
Jianlin HU[1#+], Jingyi LI[1], Lin LI[1]
[1]Nanjing University of Information Science & Technology

AS17-D2-PM2-309-006 | AS17-A029

Effects of Climate Change and Emission Scenarios on Air Pollution in India
Hao GUO[1+], Kaiyu CHEN[1], Sri KOTA[2], Hongliang ZHANG[1#]
[1]Louisiana State University, [2]Indian Institute of Technology Delhi

AS17-D2-PM2-309-007 | AS17-A027

Source-apportionment of Black Carbon (BC) and Carbon Monoxide (CO) over South Asia Using Isotopic Constraints
Sanjeev DASARI[1#+], Orjan GUSTAFSSON[1], August ANDERSSON[1], Henry HOLMSTRAND[1], Elena POPA[2], Thomas ROCKMANN[2], Krishnakant BUDHAVANT[1]
[1]Stockholm University, [2]Utrecht University

AS17-D2-PM2-309-008 | AS17-A010

Aerosol Radiative Effects on Tropospheric Photochemistry with GEOS-Chem Simulations
Rong TIAN[1+], Xiaoyan MA[1#]
[1]Nanjing University of Information Science & Technology

IG04 / Natural Hazards and Disaster Risk: Current and Historical Perspectives

Tue - 30 Jul | MR323

Time 16:00-18:00

Chair(s) Yolanda LIN, *Nanyang Technological University*
Vena Pearl BONGOLAN, *University of the Philippines Diliman*

IG04-D2-PM2-323-001 | IG04-A012

The Kabu-ido System: Climate Change and a Pioneering Collective Action in Groundwater Commons in Japan
Takahiro ENDO[1#+], Kaoru KAMATANI[2], Masaki SANO[3]
[1]Osaka Prefecture University, [2]Ritsumeikan University, [3]Waseda University

IG04-D2-PM2-323-002 | IG04-A003

Approaching Disaster and Long-term Climate Records from a Humanities Perspective

Fiona WILLIAMSON[1#+]

[1]*Singapore Management University*

IG04-D2-PM2-323-003 | IG04-A041

Integrated Threshold Development for Parametric Insurance Solutions (INPAIS) for Guangdong Province China

Gregor C. LECKEBUSCH[1#], Kelvin NG[1+], Qian YE[2], Gary WEI[3]

[1]*University of Birmingham,* [2]*Beijing Normal University,* [3]*Swiss Reinsurance Company Ltd Beijing Branch*

IG04-D2-PM2-323-004 | IG04-A009

Research on 3D Simulation of Sea Level Rise Based on Digital Earth

Jian LIU[1#+], Xiangtao FAN[1], Hongdeng JIAN[1], Qingwen JIN[1]

[1]*Chinese Academy of Sciences*

IG04-D2-PM2-323-005 | IG04-A028

DEM-based Morphometric Analysis of Sinkholes in Cebu City, Philippines

Regina Martha LUMONGSOD[1#+], Noelynna RAMOS[1], Carla DIMALANTA[1]

[1]*University of the Philippines Diliman*

IG04-D2-PM2-323-006 | IG04-A026

Advance Catastrophe Risk Modelling Using the Innovative Numerical Algorithms

Shuangcai LI[1#+], Arno HILBERTS[1], Christian MORTGAT[1]

[1]*Risk Management Solutions*

IG04-D2-PM2-323-007 | IG04-A030

Seismic Risk in Singapore: An Extreme Disaster Scenario Study

Tao LAI[1+], Yizhong QU[1], Yue-Jun YIN[1#], Bingming SHEN-TUE[1]

[1]*AIR Worldwide*

IG04-D2-PM2-323-008 | IG04-A029

Consequence-Driven Risk Framework for Uncovering Black Swans: Seismic Risk Assessment of Buildings in Singapore

Yolanda LIN[1#+], David LALLEMANT[1], Susanna JENKINS[1]

[1]*Nanyang Technological University*

HS Poster Presentations

Tue - 30 Jul, 13:30 - 15:30 | EXHIBITION HALL

HS01-D2-PM1-P-001 | HS01-A001

Flood Risk Assessment Based on Flood Damage Data for the Korean Peninsula
Hyun Il CHOI[1#+], Jong Seok LEE[1], Yu Rim LEE[1], Yun Taek LIM[1], Yongwon SEO[1]
[1]Yeungnam University

HS01-D2-PM1-P-002 | HS01-A002

Application of AHP and GIS Model for Delineation of Groundwater Protection Area Near a Saline-fresh Water Mixed Waterway
Gyoo-Bum KIM[1#+]
[1]Daejeon University

HS01-D2-PM1-P-003 | HS01-A004

Floodgates Effectiveness on the Alleviation of Flood Risk in Urban Areas
Jia-Yu WANG[1#+], Chia-Ho WANG[1], Tsang-Jung CHANG[1]
[1]National Taiwan University

HS01-D2-PM1-P-004 | HS01-A005

Estimation and Comparative Analysis of Probability Rainfall Using the AWS Rain Data in Seoul
, Heeseong PARK[1], Gunhui CHUNG[2], Jung Hoon HYUN[2#+]
[1]Korea Institute of Civil Engineering and Building Technology, [2]Hoseo University

HS01-D2-PM1-P-005 | HS01-A007

Snow Vulnerability Index in Jeolla-do, South Korea Using Entropy Theory
Gunhui CHUNG[1#], Joonhyeok HA[1+]
[1]Hoseo University

HS01-D2-PM1-P-006 | HS01-A010

Flood Risk Assessment on Life Casualties - A Case Study Through a Real Event in Taiwan
Tsang-Jung CHANG[1#+], Albert S. CHEN[2]
[1]National Taiwan University, [2]University of Exeter

HS01-D2-PM1-P-008 | HS01-A012

The Study of Water Quality Influenced by Flow Rate Changes Due to Dam Discharge
Bomin YEOM[1+], Hye Won LEE[1], Yongseok LEE[2], Nakyoung KIM[3], Jung Hyun CHOI[1#]
[1]Ewha Womans University, [2]Hallym Polytechnic University, [3]National Institute of Environmental Research

HS01-D2-PM1-P-009 | HS01-A013

Long-term Trend Analyses of Water Qualities of the River Influenced by Dam Discharge
Jiwon KIM[1+], Hye Won LEE[1], Yongseok LEE[2], Jung Hyun CHOI[1#]
[1]Ewha Womans University, [2]Hallym Polytechnic University

HS01-D2-PM1-P-012 | HS01-A020

Development of a Vehicle Loss Assessment Method for Flood Damage Model
Gilho KIM[1#+], Cheonkyu CHOI[2], Seungjin HONG[2], Kyung Tak KIM[1]
[1]Korea Institute of Construction Technology, [2]Korea Institute of Civil Engineering and Building Technology

HS01-D2-PM1-P-013 | HS01-A021

Development of the Probability of Occurrence of Disaster Victim Damage
Seungjin HONG[1#+], Gilho KIM[2], Cheonkyu CHOI[1], Kyung Tak KIM[2]
[1]Korea Institute of Civil Engineering and Building Technology, [2]Korea Institute of Construction Technology

HS01-D2-PM1-P-014 | HS01-A022

Water Environment Around Kusatsu-Shirane Volcano, Japan and Consideration of the Effect of Eruption in January 2018
Yoshihiro IGARI[1#+], Koji KODERA[1], Kazuki ASAMI[1], Go YAMAKI[1], Masaki HORIUCHI[1]
[1]Hosei University

HS01-D2-PM1-P-015 | HS01-A024

Water Environment After the Eruption of Hakone Volcano (150629)
Masaki HORIUCHI[1#+], Koji KODERA[1], Kazuki ASAMI[1], Yoshihiro IGARI[1], Go YAMAKI[1]
[1]Hosei University

HS02-D2-PM1-P-016 | HS02-A003

Representing Reservoir Storage Dynamics and Operations in the Variable Infiltration Capacity (VIC) Model
Thanh Duc DANG[1#+], Stefano GALELLI[1], A.F.M. Kamal CHOWDHURY[1]
[1]Singapore University of Technology and Design

HS02-D2-PM1-P-018 | HS02-A008

Reservoir Regulation Could Significantly Influence Flooding Dynamics in the Chao Phraya Delta
Dung VU TRUNG[1#+], Stefano GALELLI[1], Thanh Duc DANG[1]
[1]Singapore University of Technology and Design

HS02-D2-PM1-P-019 | HS02-A012

On the Change of River Water Quality in Japan Viewed from the Nationwide Observation Record
Koji KODERA[1#+]
[1]Hosei University

HS03-D2-PM1-P-020 | HS03-A004

A Unified Framework Toward Robust and Efficient Ensemble Flood Forecasting
Vinh TRAN[1], Jongho KIM[1#+]
[1]University of Ulsan

HS03-D2-PM1-P-022 | HS03-A006

A Comparative Study of Short-term Streamflow Forecasting Models
Yuqing SUN[1+], Jun NIU[1#], Bellie SIVAKUMAR[2,3]
[1]China Agricultural University, [2]University of New South Wales, [3]Indian Institute of Technology Bombay

HS03-D2-PM1-P-023 | HS03-A011

Global High-resolution River Discharge Based on the Algorithms of Drainage Network Extraction
Jiaye LI[1,2+], Tiejian LI[2], Suning LIU[3], Haiyun SHI[3#]
[1]The University of Hong Kong, [2]Tsinghua University, [3]Southern University of Science and Technology

HS03-D2-PM1-P-026 | HS03-A017

Usage of Machine Learning for Precipitation Forecast
Daniel Hui Loong NG[1,2#+], Srivatsan VIJAYARAGHAVAN[1], Ngoc Son NGUYEN[1], Shie-Yui LIONG[1]
[1]National University of Singapore, [2]Tropical Marine Science Institute

HS03-D2-PM1-P-027 | HS03-A021

Comparison of Short Term Runoff Simulation Based on Consecutive Rainfall Events Using CAT and ConSEB Model
Deokhwan KIM[1+], Hyeonjun KIM[1#], Cheol Hee JANG[1]
[1]Korea Institute of Civil Engineering and Building Technology

HS03-D2-PM1-P-028 | HS03-A029

Investigation of Influences of Point Source and Non-point Source Pollution on the Pearl River Basin in South China
Xiao FENG[1#+], Ji CHEN[1]
[1]The University of Hong Kong

HS03-D2-PM1-P-029 | HS03-A032

Quantifying Uncertainty Sources on Main and Interaction Effect in an Ensemble of Hydrological Climate-impact Projections
Lin TIAN[1+], Aizhong YE[1#], Qingyun DUAN[1,2]
[1]Beijing Normal University, [2]Hohai University

HS03-D2-PM1-P-030 | HS03-A034

Evaluation of Parameter Interaction Effect of a Hydrological Model Using the Sparse Polynomial Chaos Method
Heng WANG[1#+], Qingyun DUAN[1,2], Wei GONG[1]
[1]Beijing Normal University, [2]Hohai University

HS03-D2-PM1-P-031 | HS03-A035

Quantitative Attribution of Natural and Human Factors for Dramatic Reduction in Streamflow and Sediment in a Representative Watershed in the Loess Plateau
Pengcheng SUN[1#+], Yiping WU[1]
[1]Xi'an Jiaotong University

HS04-D2-PM1-P-032 | HS04-A002

Recurrence Intervals of Landslides Triggered by Simulated Typhoon Events in Northern Taiwan Under Climate Change
Jun-Jih LIOU[1#+], Chi-Wen CHEN[1], Fang-Yi CHU[1]
[1]National Science and Technology Center for Disaster Reduction

HS04-D2-PM1-P-033 | HS04-A003

Spatiotemporal Analysis of Standardized Precipitation Index in Jianan Irrigation District, Taiwan
Ke-Sheng CHENG[1#+]
[1]National Taiwan University

HS04-D2-PM1-P-034 | HS04-A004

The Relationship Between Precipitation Extremes of Different Temporal Scales and Temperature
Zhiyong YANG[1#+], Xichao GAO[1], Jiahong LIU[1], Weiwei SHAO[1]
[1]China Institute of Water Resources and Hydropower Research

HS04-D2-PM1-P-036 | HS04-A006

Assessment of Weather Generators at Fine Spatiotemporal Scales
Yan-Cheng CHEN[1#+], Chia-Jeng CHEN[1]
[1]National Chung Hsing University

HS05-D2-PM1-P-037 | HS05-A006

The Impact Assessment of Agricultural Non-point Source Pollution on Water Quality in Saemangeum Reservoir
Chansung OH[1#+], Woohan RYU[1], Hanyong UM[1]
[1]Korea Rural Community Corporation

HS05-D2-PM1-P-038 | HS05-A008

The Relationship Between Soil Moisture and Vegetation with Severe Droughts in California
Linghua QIU[1+], Ji CHEN[1#], Haiyun SHI[2], Liqun SUN[3], Jun NIU[4]
[1]The University of Hong Kong, [2]Southern University of Science and Technology, [3]Chinese Academy of Sciences, [4]China Agricultural University

HS05-D2-PM1-P-039 | HS05-A010

Comparison of Maize Water Consumption at Different Scales Between Mulched and Non-mulched Croplands
Yu FENG[1#+], Daozhi GONG[2], Ji CHEN[1]
[1]The University of Hong Kong, [2]Chinese Academy of Agricultural Sciences

HS05-D2-PM1-P-040 | HS05-A012

Study on the Discharge Characteristics of Pollutant Load from Upland in Reclaimed Saemangeum Area
Chansung OH[1#+], Donguk SEO[1], Hanyong UM[1]
[1]Korea Rural Community Corporation

HS05-D2-PM1-P-041 | HS05-A013

Underestimation of Soil Respiration in a Desert Ecosystem
Keyu FA[1#+]
[1]China Agricultural University

HS06-D2-PM1-P-044 | HS06-A005

Development of Sediment Caution Zone Risk Map Due to Climate Change
Hiromichi SUZUKI[1], Yosuke SAITO[1], Thi Thanh Thuy LE[1], Seiki KAWAGOE[1#+]
[1]Fukushima University

HS06-D2-PM1-P-045 | HS06-A008

Assessment of Extreme Rainfall-induced Landslide Susceptibility by Using the Modified Logistic Regression and the Following Annual Landslide Susceptibility Based on Annual Landslide Evolution: A Case Study in Southwestern Taiwan
Chunhung WU[1#+]
[1]Feng Chia University

HS06-D2-PM1-P-047 | HS06-A011

Comparison of Extreme Rainfall-induced Landslides in Taiwan
Chunhung WU[1#+]
[1]Feng Chia University

HS06-D2-PM1-P-048 | HS06-A013

Frequency Analysis of Probable Precipitation for Hydraulic Structures Design Under Changing Climate in Seoul
Sunkwon YOON[1#+]
[1]Seoul Institute of Technology

HS06-D2-PM1-P-049 | HS06-A014

Generation of Regional Maximum Flood Using Spatial Runoff Data Extension Concept
Kim KI HYEON[1+], Ga-Young CHOI[1], Jung YONG[1#]
[1]Wonkwang University

HS06-D2-PM1-P-050 | HS06-A015

Accuracy Evaluation of Quadratic Resistance Model for Spread of Debris-flow
Dong Hyun KIM[1+], Seok Il JEONG[1], Chang Geun SONG[2], Seung Oh LEE[1#]
[1]Hongik University, [2]Incheon National University

HS06-D2-PM1-P-051 | HS06-A016

Real-time Correct of Ensemble Numerical Weather Predictions Using Machine Learning
Chia-Yen CHOU[1#+], Gwo-Fong LIN[1], Ming-Jui CHANG[1], I-Hang HUANG[1]
[1]National Taiwan University

HS06-D2-PM1-P-052 | HS06-A017

Development of Rainfall-induced Shallow Landslide Warning System for Human Settlement in the Mountainous Area

Jui-Yi HO[1#+], Xiu-Man HUANG[1], Chih-Hsin CHANG[1], Kwan Tun LEE[2], Gwo-Fong LIN[3]

[1]National Science and Technology Center for Disaster Reduction, [2]National Taiwan Ocean University, [3]National Taiwan University

HS06-D2-PM1-P-053 | HS06-A018

A Study on the Establishment of Rainfall Criteria Using Probable Rainfall and Flood Damage Data

Cheonkyu CHOI[1#+], Seungjin HONG[1], Gilho KIM[2], Kyung Tak KIM[2]

[1]Korea Institute of Civil Engineering and Building Technology, [2]Korea Institute of Construction Technology

HS07-D2-PM1-P-054 | HS07-A009

The Runoff and Sediment Processes Affected by Soil Freezing and Thawing Along Alpine Meadow Hillslope

Xiaonan SHI[1#+], Fan ZHANG[1], Li WANG[1]

[1]Chinese Academy of Sciences

HS07-D2-PM1-P-055 | HS07-A011

Soil Erosion Risk Assessment and Climatic Impacts on it in the Mid-Yarlung Tsangpo River Region

Li WANG[1+], Fan ZHANG[1#], Xiaonan SHI[1], Xiong XIAO[1]

[1]Chinese Academy of Sciences

HS07-D2-PM1-P-056 | HS07-A016

Analysis on Surface Heating Field by Using Different Methods over the Tibetan Plateau

Weiqiang MA[1#+], Yaoming MA[1], Yizhe HAN[1], Lei ZHONG[2]

[1]Chinese Academy of Sciences, [2]University of Science and Technology of China

HS07-D2-PM1-P-057 | HS07-A017

Development and Progress of High Resolution CMA Land Surface Data Assimilation System

Shuai HAN[1+], Chunxiang SHI[1#], Bin XU[1], Lipeng JIANG[1], Shuai SUN[1], Tao ZHANG[1]

[1]China Meteorological Administration

HS07-D2-PM1-P-058 | HS07-A018

A Land Data Assimilation Study Based on LIS with FY3C Land Surface Temperature and Microwave Brightness Temperature

Chunxiang SHI[1#+], Binghao JIA[2], Shuai SUN[1], Shuai ZHANG[3], Xiao LIANG[1], Lipeng JIANG[1]

[1]China Meteorological Administration, [2]Chinese Academy of Sciences, [3]Nanjing University of Information Science & Technology

HS07-D2-PM1-P-061 | HS07-A026

Variation of Carbon Dioxide and Heat Fluxes over the Southern Side of Central Himalayas, Nepal

Madan SIGDEL[1#+], Ram Hari ACHARYA[1], Yaoming MA[2]

[1]Tribhuvan University, [2]Chinese Academy of Sciences

HS08-D2-PM1-P-063 | HS08-A006

A Study of Snowmelt Runoff Pollutions in Urban Catchment in Semi-arid Area of China

Jingshu WANG[1], Jeanne Jinhui HUANG[1#+]

[1]Nankai University

HS08-D2-PM1-P-064 | HS08-A007

Characteristics of Heavy Metals and Nutrients Build-up with Road Sediments in Semi-arid Area of China

Jingshu WANG[1], Jeanne Jinhui HUANG[1#+]

[1]Nankai University

HS08-D2-PM1-P-065 | HS08-A008

An Assessment of Vegetation Stability in Saudi Arabia with Observation and Modeling Approach

Hesham EL-ASKARY[1#+], Wenzhao LI[1], Mohamed QURBAN[2], Mohammad H. Makkawi ASHRI[2]

[1]Chapman University, [2]King Fahd University of Petroleum and Minerals (KFUPM)

HS09-D2-PM1-P-067 | HS09-A003

Analysing Spatiotemporal Changes of Terrestrial Water Storage in Three Parallel Rivers Basin Based on Grace Data

Yu ZHU[1+], Shiyin LIU[1#], Sidou ZHANG[1], Muhammad SAIFULLAH[1], Ying YI[1], Haijuan LI[1]

[1]Yunnan University

HS09-D2-PM1-P-068 | HS09-A004

Geostatistical Models for Merging Radar and Gauge Data

Sanghoo YOON[1#+]

[1]Daegu University

HS09-D2-PM1-P-069 | HS09-A006

Pumping Pattern Recognition from Hot Spring Monitoring Data in Taiwan

Hung-Jen LIU[1#+], Nien-Sheng HSU[1]

[1]National Taiwan University

HS09-D2-PM1-P-070 | HS09-A008

Develop the Calibration Method for Radar Surface Velocimeter

Yi-Jun HUANG[1#+], Po-Hsu TSAI[1]

[1]National Taiwan University

HS09-D2-PM1-P-071 | HS09-A010

The Impact of Tipping-bucket Mechanical Errors on Rainfall Measurements During Extreme Events in Taiwan

Chen-Ho CHIEN[1#], Li-Hui HSIEH[1+]

[1]National Taiwan University

HS09-D2-PM1-P-072 | HS09-A012

Development and Evaluation of Quality Control Techniques for Global Climate Observations

Jaeseung LEE[1+], Seon-Ho KIM[1], Deg-Hyo BAE[1#]

[1]Sejong University

HS09-D2-PM1-P-073 | HS09-A015

Comparison of Machine Learning Methodologies for Hourly Reservoir Inflow Forecasting

Kuang-Chi SHIH[1#+], Gwo-Fong LIN[1], Ming-Jui CHANG[1], Peng-An CHEN[1]

[1]National Taiwan University

HS09-D2-PM1-P-074 | HS09-A016

Evaluation of Rainfall Intensity from Measurement with Multiple Gauges

Chan Joo LEE[1#+], Dong Gu KIM[1], Bong-Joo JANG[1], Won KIM[1]

[1]Korea Institute of Civil Engineering and Building Technology

HS09-D2-PM1-P-075 | HS09-A017

The Changing Trend and its Attribution of Global and Regional Continental Discharge: Results from Ten Global Land Models

Chen WANG[1+], Qingyun DUAN[2,3#]

[1]Chinese Academy of Sciences, [2]Hohai University, [3]Beijing Normal University

HS09-D2-PM1-P-076 | HS09-A021

Establishment of Water Quality Simulation and Assimilative Capacity Assessment Technology for Irrigation System in Taiwan

Wen-Sheng LIN[1#+], Chihhao FAN[1], Hung-Jen LIU[1]

[1]National Taiwan University

HS09-D2-PM1-P-077 | HS09-A024

Prediction of Water Pollution at Okcheon Area of the Geumgang River Using RNN Model

Hee Sung LIM[1#+]

[1]Chungnam National University

HS09-D2-PM1-P-078 | HS09-A025

The Role of Soil Moisture Variations in Changes of Groundwater Levels During Rainfall Events

Ming-Hsu LI[1#+], I-Chieh TSENG[1]

[1]National Central University

HS10-D2-PM1-P-079 | HS10-A002

Extreme Hydrologic Events Response to Climate Change Scenario in Huaihe River Basin, China

Junliang JIN[1#+], Cuishan LIU[1], Guoqing WANG[1], Jianyun ZHANG[1]

[1]Nanjing Hydraulic Research Institute

HS10-D2-PM1-P-080 | HS10-A005

Assimilated Hydrological Data at NASA GES DISC with Examples of Extreme Events

Hualan RUI[1,2#+], Carlee LOESER[1], William TENG[1], Dana OSTRENGA[1,3], Bruce VOLLMER[1], Jennifer WEI[1]

[1]NASA Goddard Earth Sciences Data and Information Services Center, [2]ADNET Systems, INC., [3]Adnet Systems

HS10-D2-PM1-P-081 | HS10-A006

Physically-based Empirical Models for Forecasting Meteorological Droughts During Major Crop Growing Season of Pakistan

Najeebullah KHAN[1], Young Hoon SONG[2+], Shamsuddin SHAHID[1], Eun Sung CHUNG[2#]

[1]Universiti Teknologi Malaysia, [2]Seoul National University of Science and Technology

HS10-D2-PM1-P-082 | HS10-A008

Analysis of Daily Wet Day Rainfall Distribution Across India

Lalit PAL[1#+], Chandra Shekhar Prasad OJHA[1], Ajay GAIROLA[1]

[1]Indian Institute of Technology Roorkee

HS10-D2-PM1-P-083 | HS10-A009

Future Flood Risk Under the Climate Change Scenarios in Seomjingang River Basin, South Korea

Sunghun KIM[1+], Younghun JUNG[1], Kyungwon JOO[1], Jun-Haeng HEO[1#]

[1]Yonsei University

HS10-D2-PM1-P-084 | HS10-A011

Flood Risk Estimation Due to Climate Change Using Hybrid Downscaling Data

Yasutaka WAKAZUKI[1,2#+], Shiori ABE[3], Yousuke NAKAMURA[4]

[1]Ibaraki University, [2]Japan Agency for Marine-Earth Science and Technology, [3]Mitsui Consultants Co., Ltd., [4]Public Works Research Institute

HS10-D2-PM1-P-085 | HS10-A012

Temporal Evolution of Precipitation and Temperature Based Climate Change Indices Across India

Subhasmita DASH[1+], Rajib MAITY[1#]

[1]Indian Institute of Technology Kharagpur

HS10-D2-PM1-P-086 | HS10-A017

On Exploring Trends in Atmospheric River Induced Precipitation Extremes in the U.S. West Coast

Lifeng LUO[1#+], Leo PHAM[1]

[1]Michigan State University

HS10-D2-PM1-P-087 | HS10-A022

Assessment of the Impact of Climate Change on Omo-Gibe Streamflow Characteristics Using CORDEX Africa Data

Tewodros TESFAYE[1#+], C. T. DHANYA[1], Ashvani GOSAIN[1]

[1]Indian Institute of Technology Delhi

HS10-D2-PM1-P-088 | HS10-A023

Non-stationary Modeling of Extreme Precipitation over Monsoon Asia

Meghana NAGARAJ[1+], Roshan SRIVASTAV[2#], Srinivasan KASTURIRENGAN[1]

[1]Indian Institute of Technology Madras, [2]Indian Institute of Technology Tirupati

HS11-D2-PM1-P-090 | HS11-A003

A Real-time Flood Early Warning System Based on an Integrated Rainfall Forecasting Employing Global Datasets for Adapting Extreme Weather Events in Data-scarce Nile Delta

Chien-Nien CHEN[1#+], Dawei HAN[1], M. A. RICO-RAMIREZ[1], Khaled KHEIRELDIN[2], Mahmoud ROUSHDI[2]

[1]University of Bristol, [2]National Water Research Center

HS11-D2-PM1-P-091 | HS11-A006

Analysis of Integrated Basin Information to Relationship Between CIA and GIS Data

Yusuke HATAYA[1], Ken SUZUKI[1], Shiho YABUSAKI[2], Seiki KAWAGOE[1#+]

[1]Fukushima University, [2]Research Institute for Humanity and Nature

HS11-D2-PM1-P-093 | HS11-A010

Real-time Flood Prediction by Combining Two-dimensional Hydraulic Model with Dynamic Neural Network in Urban Area

Hyun Il KIM[1+], Kun-Yeun HAN[1#], Ho Jun KEUM[1], Jae Yeong LEE[1], Beom Jin KIM[1]

[1]Kyungpook National University

HS11-D2-PM1-P-094 | HS11-A012

Estimation of Flood Vulnerable Area by Using Watershed Runoff Mechanism

Jae Yeong LEE[1+], Kun-Yeun HAN[1#], Ho Jun KEUM[1], Beom Jin KIM[1], Hyun Il KIM[1]

[1]Kyungpook National University

HS12-D2-PM1-P-097 | HS12-A006

The Impact of Hydro-Climatic Extremes on Water Security Due to Saltwater Intrusion Through Delta Channel Networks

Xuan YU[1#+], Bingjun LIU[1], Mingzhu ZHANG[2], Tongtiegang ZHAO[1]

[1]Sun Yat-sen University, [2]Guangzhou Hydraulic Research Institute

HS12-D2-PM1-P-098 | HS12-A010

Climate Change Impact on Water Resources in Coastal Watersheds Along the Contiguous United States

Kai DUAN[1#+], Xuan YU[1]

[1]Sun Yat-sen University

HS13-D2-PM1-P-099 | HS13-A001

Parameter Uncertainty of Urban Storage Function Model by Bootstrap Approach

Akira KAWAMURA[1#+], Saritha PADIYEDATH GOPALAN[1], Hideo AMAGUCHI[1], Gubash AZHIKODAN[1]

[1]Tokyo Metropolitan University

HS13-D2-PM1-P-100 | HS13-A002

Using Environmental Auxiliary Data to Assess Fecal Pollution Sources and Impact on Water-related Recreation in the Highly Urbanized Tamsui River Watershed

Cheng-Shin JANG[1#+]

[1]Kainan University

HS13-D2-PM1-P-101 | HS13-A007

Suggesting New Compost Mixed Halophiles in and its Effect to the Salt Damaged Soil

Minori KOIZUMI[1+], Satoshi AKIBA[1#]

[1]Sendai Nika High School

HS13-D2-PM1-P-103 | HS13-A012

Evaluation of the Applicability of Inundation Risk Index for Pre-flood Response on Jungrang-cheon Watershed

Narae KANG[1#+], Seok Hwan HWANG[1], Jungsoo YOON[1]

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HS13-D2-PM1-P-105 | HS13-A015

A Study on TN and TP Runoff Characteristics in the Kinokawa River Basin Based on High-frequency Nutrient Monitoring

Hiroto TANOUCHI[1#+], Akihisa IMOTO[1], Kouichi ISHIURA[1], Nobuyuki EGUSA[1]

[1]Wakayama University

HS13-D2-PM1-P-106 | HS13-A017

Optimum Inundation Mitigation Measures for a Coastal Basin

Kwang Ik SON[1#], Won Bum KIM[1], In Jae LEE[1+]

[1]Yeungnam University

HS13-D2-PM1-P-107 | HS13-A020

Development of Rainfall-runoff Model for Myohoji River Basin Considering Rainwater Sewage Channels

Kenichiro KOBAYASHI[1], Atsushi TAMURA[1#+], Ichiro FUJITA[1], Akinobu YAMAMOTO[2], Toshikazu KAGEYAMA[2]

[1]Kobe University, [2]Kobe City

HS13-D2-PM1-P-108 | HS13-A034

Identifying Human Safe Index During Urban Flood for Vulnerability Assessment with MCDM Methods

Gyumin LEE[1#+], Kyung Soo JUN[1]

[1]Sungkyunkwan University

HS13-D2-PM1-P-109 | HS13-A035

Evaluation of Water System Connectivity Based on Flow Resistance and Hydrological Processes

Yuqin GAO[1#+], Yunping LIU[1], Xiaohua LU[2]

[1]Hohai University, [2]China North Water Survey Design and Research Co., Ltd.

HS13-D2-PM1-P-110 | HS13-A037

Occurrence of Hypoxia in a Reservoir

Konosuke YAMAMOTO[1#+], Noriko HAYASHI[1], Shino SAKAGUCHI[1], Keisuke NAKAYAMA[1], Kenichiro KOBAYASHI[1]

[1]Kobe University

HS14-D2-PM1-P-111 | HS14-A007

A GNSS-based Study of Four-dimensional Distribution of Water Vapor Fields in the Tibetan Plateau

Zhen QIAO[1+], Jiahua WEI[2#], Qiong LI[1], Shengchun WANG[1]

[1]Qinghai University, [2] Tsinghua University

HS14-D2-PM1-P-112 | HS14-A008

Estimation of Precipitation Rate Using Ka/Ku Band Radar Data: A Deep Learning Approach

Qiong LI[1+], Jiahua WEI[2#]

[1]Qinghai University, [2] Tsinghua University

HS14-D2-PM1-P-113 | HS14-A011

Research on the Cloud Liquid Water Content Inversion with Microt Rain Radar

Xiaomei ZHU[1#+]

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HS14-D2-PM1-P-114 | HS14-A013

Numerical Simulation of Precipitation Stimulation by Acoustic Wave Using COMSOL

Linhao FAN[1#+], Mengyao WANG[1], Ji CHEN[1]

[1]The University of Hong Kong

HS14-D2-PM1-P-115 | HS14-A014

Study of Features of Precipitation Change Along Global Warming in South-west China Using WRF

Xinzheng TANG[1#+], Ji CHEN[1]

[1]The University of Hong Kong

HS15-D2-PM1-P-116 | HS15-A002

Analysis of Water Quality Change and its Factors Before and After Natural Disasters in the Shimabara Springs

Makoto KAGABU[1#+], Kei FUJISHIMA[1]

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HS15-D2-PM1-P-117 | HS15-A004

The Present Situation of the Sponge City Construction in China and the Case Study of Xiamen City

Weiwei SHAO[1#+], Jiahong LIU[1], Jinjun ZHOU[1], Zhiyong YANG[1], Penggui XIE[2], Zhaohui YANG[1], Chao MEI[1], Dianyi YAN[1]

[1]China Institute of Water Resources and Hydropower Research, [2]Xiamen Urban Planning & Design Institute

HS15-D2-PM1-P-118 | HS15-A007

Ecological Risk Assessment of the Coastal Area of Yancheng, China

Huachun HE[1#+]

[1]Nanjing University

HS15-D2-PM1-P-119 | HS15-A010

Temporal and Spatial Variations in Water Discharge and Sediment Load on the Loess Plateau, China: A High-density Study

Haiyan ZHENG[1#+], Chiyuan MIAO[1], Qingyun DUAN[1,2]

[1]Beijing Normal University, [2]Hohai University

HS15-D2-PM1-P-120 | HS15-A011

Using 137Cs and 210Pbex Measurements to Estimate Soil Erosion Rates Under Different Land Use in the Dry - Hot Valley Region, Southern China

Yawen LI[1#+], Xingwu DUAN[1]

[1]Yunnan University

HS15-D2-PM1-P-121 | HS15-A013

Dispersion, Sorption and Photodegradation of Petroleum Hydrocarbons in Dispersant-seawater-sediment Systems

Xiao ZHAO[1#+]

[1]China Agricultural University

HS15-D2-PM1-P-122 | HS15-A014

Evaluation of Impacts of Land Use and Land Cover Change on Watershed Response and Crop Yield

Lichi CHIANG[1#+], Yung-Chieh WANG[2], Chih-Mei LU[1], Ci-Jyun LIAO[1]

[1]National United University, [2]National Chung Hsing University

HS16-D2-PM1-P-124 | HS16-A001

Impact Analysis of Land Use Change on Spring Water Quality in Fukuoka Area

Kei FUJISHIMA[1+], Makoto KAGABU[1#]

[1]Nagasaki University

HS16-D2-PM1-P-125 | HS16-A002

Impact of Climate Change on Water Resource - Compared Two Different Water Resource System in Taiwan

Tzu-Ming LIU[1], Tse-Yu TENG[1#+], Ming-Hsu LI[2]

[1]National Science and Technology Center for Disaster Reduction, [2]National Central University

HS16-D2-PM1-P-126 | HS16-A005

Potential of Graphical Modelling in Long-lead Seasonal Prediction of Regional Summer Monsoon Rainfall in Context of Climate Change

Riya DUTTA[1+], Rajib MAITY[1#]

[1]Indian Institute of Technology Kharagpur

HS16-D2-PM1-P-127 | HS16-A008

Separating the Impacts of Climate Change and Human Activities on Annual Streamflow Based on the Budyko Complementary Relationship at Small Scales in Southern Taiwan

Jyun TSAO[1+], Hsin-Fu YEH[1#]

[1]National Cheng Kung University

HS16-D2-PM1-P-128 | HS16-A009

Water Quality Characteristics and Factors in Islands of Nagasaki Prefecture, Japan

Go YAMAKI[1#+], Koji KODERA[1], Yoshihiro IGARI[1]

[1]Hosei University

HS16-D2-PM1-P-129 | HS16-A011

Impact of Climate Change on Groundwater in the Kurobe River Alluvial Fan, Japan

Matsuura TAKUYA[1#+], Taichi TEBAKARI[1], Tomigashi AKIRA[2], Ogata RIKU[3], Maeda YOSHIE[4], Watanabe SHIGERU[4]

[1]Toyama Prefectural University, [2]National Institute of Advanced Industrial Science and Technology, [3]Yachiyo Engineering Consulting Engineers & Architects, [4]Japan Weather Association

HS16-D2-PM1-P-130 | HS16-A013

Impact and Consequences of Climate Change on Groundwater Resources - East Coast of South India, A Case Study

Banajarani PANDA[1#+], Chidambaram SABARATHINAM[2], Ganesh NAGAPPAN[3], Thilagavathi RAJENDIRAN[4]

[1]RESEARCH SCHOLAR, [2]Research Scientist, [3]Assistant Professor, [4]Postdoctoral Research Fellow

HS17-D2-PM1-P-131 | HS17-A001

Data Assimilation to Study the Influence of Uncertainty in Land Surface Model

Akhilesh NAIR[1#+], Ankita PRADHAN[1], Sooraj KRISHNAN[1], Indu J.[1]

[1]Indian Institute of Technology Bombay

HS17-D2-PM1-P-132 | HS17-A003

Understanding Hydropower Curtailment in Laos

Rachel KOH[1#+], A.F.M. Kamal CHOWDHURY[1], Thanh Duc DANG[1], Stefano GALELLI[1]

[1]Singapore University of Technology and Design

HS18-D2-PM1-P-134 | HS18-A001

NDVI Indicated Dynamic Variations in Vegetation and Their Responses to Climatic and Anthropogenic Factors in the Yarlung Zangbo River Basin of Southeastern Qinghai-Tibet Plateau, China

Liu LIU[1#], Hao LI[1+], Zongxue XU[2], Jingxia HENG[1]

[1]China Agricultural University, [2]Beijing Normal University

HS18-D2-PM1-P-135 | HS18-A002

Representing the Macropore Flow Processes in a Watershed Hydrological Model and Evaluating the Effect of Macropore Flow on the Flood Peaks

Dengfeng LIU[1#+], Hong-Yi LI[2], Man GAO[3], L. Ruby LEUNG[4], Guenter BLOESCHL[5], Henry LIN[6]

[1]Xi'an University of Technology, [2]University of Houston, [3]Tianjin University, [4]Pacific Northwest National Laboratory, [5]Vienna University of Technology, [6]Pennsylvania State University

HS18-D2-PM1-P-136 | HS18-A004

Threshold Effect and Hysteresis of Runoff Generation Processes in Alpine Meadow Hill-slope

Xiong XIAO[1#+], Fan ZHANG[1]

[1]Chinese Academy of Sciences

HS18-D2-PM1-P-138 | HS18-A009

Identification of Dead Zone in Constructed Wetlands for Evaluating the Related Hydraulic Performance

Hung-Chih WANG[1+], Shang-Shu SHIH[1#]

[1]National Taiwan University

HS18-D2-PM1-P-139 | HS18-A014

Impacts of Recent Climate Extremes on Spring Phenology in Arid-mountain Ecosystems in China

Jun DU[1#+]

[1]Northwest Institute of Eco-Environment and Resources, Chinese Academy of Sciences

HS18-D2-PM1-P-141 | HS18-A021

Mechanisms and Feedbacks for Evapotranspiration-induced Salt Accumulation and Precipitation in an Arid Wetland of China

Bing LIU[1#+], Zijuan WEN[2]

[1]Chinese Academy of Sciences, [2]Lanzhou University

HS18-D2-PM1-P-142 | HS18-A022

Evapotranspiration Modeling and Scale Transformation in the Qinghai-Tibetan Plateau

Yu FENG[1+], Ji CHEN[1#], Chunmiao ZHENG[2]

[1]The University of Hong Kong, [2]Southern University of Science and Technology

HS18-D2-PM1-P-143 | HS18-A025

Model Groundwater Change in Ejina Oasis Based on Linear and Non-linear State Space Approach

Haiyang XI[1#+], Jianhua SI[2], Rui GUO[1]

[1]Chinese Academy of Sciences, [2]Cold and Arid Regions Environmental and Engineering Research Institute, Chinese Academy of Sciences (CAS)

HS19-D2-PM1-P-144 | HS19-A002

The Characteristics of the Surface Energy Budget Between Regions of Seasonally Frozen Ground and Permafrost on the Northern Tibetan Plateau

Lianglei GU[1#+], Jimin YAO[1], Zeyong HU[2], Lin ZHAO[2]

[1]Northwest Institute of Eco-Environment and Resources, Chinese Academy of Sciences, [2]Chinese Academy of Sciences

HS19-D2-PM1-P-145 | HS19-A006

Glacier Runoff and its Impact in the Hailuogou Catchment During 1988-2017: Observations and Simulations

Yong ZHANG[1#+], Qiao LIU[2], Xin WANG[1], Shiyin LIU[3]

[1]Hunan University of Science and Technology, [2]Chinese Academy of Sciences, [3]Yunnan University

HS19-D2-PM1-P-147 | HS19-A011

Spatiotemporal Variation of Snow Cover and its Relation to Climate Change in Upper Yarkant and Indus River Basins Since 2002

Ying YI[1+], Shiyin LIU[1#], Yu ZHU[1]

[1]Yunnan University

HS20-D2-PM1-P-149 | HS20-A001

A Recursive Approach to Long-term Prediction of Monthly Precipitation in the Three-river Headwaters Region

Haiyun SHI[1#+], Suning LIU[1]

[1]Southern University of Science and Technology

HS20-D2-PM1-P-150 | HS20-A006

Seasonal Streamflow Forecasting Based on Ensemble Streamflow Prediction Technique Using Hindcast Data

Shailesh SINGH[1#+]

[1]National Institute of Water and Atmospheric Research

HS21-D2-PM1-P-151 | HS21-A001

Analysis of Surface Flow Pattern on Road Using Large Particle Image Velocimetry

Jung Soo KIM[1#+], Sung Ho LEE[2]

[1]University of Bucheon, [2]Kumoh National Institute of Technology

HS21-D2-PM1-P-152 | HS21-A002

Correlation Analysis of Rainfall Critical Duration and Time of Concentration by Road Surface Conditions and Rainfall Intensity

Sung Ho LEE[1+], Jung Soo KIM[2#], Jae Joon LEE[1]

[1]Kumoh National Institute of Technology, [2]University of Bucheon

HS21-D2-PM1-P-153 | HS21-A004

Assessment of Drought Propagation Occurrence Probability Using Mixed Copula Functions in Soyang River Basin

Ji-Yae SHIN[1], Ji-Eun KIM[1+], Hyun-Han KWON[2], Taesuk OH[3], Tae-Woong KIM[1#]

[1]Hanyang University, [2]Sejong University, [3]Korea Meteorological Administration

HS21-D2-PM1-P-154 | HS21-A010

Development of a Livestock Weight Model and its Application to Winter Disaster Risk Assessment in Mongolia

Kaoru TACHIIRI[1#+], Hiroshi KOMIYAMA[2], Yuki MORINAGA[3], Masato SHINODA[2]

[1]Japan Agency for Marine-Earth Science and Technology, [2]Nagoya University, [3]Meiji University

HS21-D2-PM1-P-155 | HS21-A013

Comparison of WRF Simulation Results and SCS-CN Method in Surface Runoff (A Case Study on Zavkhan-Guulin Watershed, Mongolia)

Otgonsuren SHAR[1+], Jambajamts LKHAMJAV[1#], Ganbold BOLDBAATAR[1]

[1]National University of Mongolia

HS21-D2-PM1-P-156 | HS21-A014

Analysis and Compare of Agricultural, Meteorological and Hydrological Drought Characteristics in Longchuan River Basin, Yunnan Province, China

Fan YANG[1#+], Xingwu DUAN[1]

[1]Yunnan University

HS21-D2-PM1-P-157 | HS21-A015

Similiarities Between Water Surface Level and Standardized Precipitation Index for Hydrologic Drought Monitoring Using Wavelet Transform Approach

Jin-Guk KIM[1+], Minkyu JUNG[1], Jin-Young KIM[2], Hyun-Han KWON[1#]

[1]Sejong University, [2]ISAN Corporation

HS21-D2-PM1-P-158 | HS21-A016

Study on the Development of Flood Depth Damage Functions for Public Buildings

Chang Hee LEE[1+], Sang Ho KIM[2#], Shinbum HWANG[2], Junhyuk SIM[2]

[1]Jungwon University, [2]Sangji University

HS21-D2-PM1-P-159 | HS21-A017

Temporal and Spatial Variation of Seismic Activity Due to Hydrologic Cycle in South Korea

Sukhwan JANG[1#+], Kyung Doo OH[2], Jae-Kyoung LEE[1], Junwon JO[1], Junsik HWANG[3], Yoo Jung KWON[3]

[1]Daejin University, [2]Korea Military Academy, [3]Yeungnam University

HS22-D2-PM1-P-160 | HS22-A004

Ground-based and Space-borne Cases of Soil Moisture Estimation Using Navigational Reflection Signals

Songhua YAN[1#+]

[1]Wuhan University

HS22-D2-PM1-P-162 | HS22-A013

A Remote Sensing-based Assessment of Water Resources in the Arabian Peninsula

Marouane TEMIMI[1], Youssef WEHBE[1#+]

[1]Khalifa University of Science and Technology

HS23-D2-PM1-P-163 | HS23-A003

Very Short-term Typhoon Rainfall Forecasting by Post-processing Ensemble Forecasts from an Ensemble Numerical Weather Prediction System

Ming-Chang WU[1#+]

[1]National Applied Research Laboratories

HS23-D2-PM1-P-164 | HS23-A005

A Method to Predict Water Level Based on Analogical Reasoning Algorithm

Sheng-Chi YANG[1#+]

[1]National Applied Research Laboratories

HS23-D2-PM1-P-165 | HS23-A007

Evaluation of the ECMWF System 4 Climate Forecasts for Streamflow Forecasting in the Upper Hanjiang River Basin

Fuqiang TIAN[1#+]

[1]Tsinghua University

HS23-D2-PM1-P-166 | HS23-A008

Comparison of Statistical Post-processing Methods for Short-to-medium Term Precipitation Forecasts

Wentao LI[1+], Qingyun DUAN[1,2#]

[1]Beijing Normal University, [2]Hohai University

HS24-D2-PM1-P-167 | HS24-A002

Assisting Decision Making on Water Management by Hydrological Simulation with Consideration of Future Climate Change: A Catchment Example from Eastern Taiwan

Li-Chun PENG[1#+], Yu-Pin LIN[1], Wan-Yu LIEN[1], Wei-Chih LIN[1]
[1]National Taiwan University

HS24-D2-PM1-P-168 | HS24-A006

Improving Watershed Water Cycle Under Future Climate Change Using Catchment Hydrologic Cycle Assessment Tool

Cheol Hee JANG[1#+]
[1]Korea Institute of Civil Engineering and Building Technology

HS24-D2-PM1-P-169 | HS24-A010

A Bayesian Framework for the Spatial Downscaling Based on Kriging and Quantile Delta Mapping Approach

Yong-Tak KIM[1+], Hojun KIM[1], Tae-Woong KIM[2], Hyun-Han KWON[1#]
[1]Sejong University, [2]Hanyang University

HS26-D2-PM1-P-170 | HS26-A003

The Winter Baseflow Variations and Causes in Eurasia over the Past 100 Years

Jia QIN[1#+], Yongjian DING[1,2], Tianding HAN[3]
[1]Northwest Institute of Eco-Environment and Resources, Chinese Academy of Sciences, [2]University of Chinese Academy of Sciences, [3]Chinese Academy of Sciences

HS26-D2-PM1-P-171 | HS26-A010

A Comprehensive Evaluation of 4-parameter Diurnal Temperature Cycle Models with In-situ and MODIS LST over Alpine Meadow in the Tibetan Plateau

Yaping CHANG[1+], Yongjian DING[2,3], Qiudong ZHAO[1], Zhang SHIQIANG[4#]
[1]Chinese Academy of Sciences, [2]Northwest Institute of Eco-Environment and Resources, Chinese Academy of Sciences, [3]University of Chinese Academy of Sciences, [4]Northwest University

HS26-D2-PM1-P-175 | HS26-A018

Acceleration of Glacier Mass Loss on Global and Regional Scales During 1960-2015

Yaojun LI[1#+], Yongjian DING[2,3], Donghui SHANGGUAN[2]
[1]Chinese Academy of Sciences, [2]Northwest Institute of Eco-Environment and Resources, Chinese Academy of Sciences, [3]University of Chinese Academy of Sciences

HS26-D2-PM1-P-176 | HS26-A019

Improved Modeling of Snow and Glacier Melting by Stepwise Calibration with Multisource Data: A Case Study in the Yigong Tsangpo River Basin

Hongkai GAO[1#+], Zhihao JIN[2]
[1]East China Normal University, [2]Wuhan University

HS26-D2-PM1-P-177 | HS26-A020

Spatial and Temporal Characteristics of Permafrost Changes over the Qinghai-Tibet Plateau from 1980 to 2010

Zhuotong NAN[1#+], Shuping ZHAO[1]
[1]Nanjing Normal University

HS27-D2-PM1-P-178 | HS27-A010

Testing the Maximum Entropy Production Approach for Estimating Evapotranspiration from Closed Canopy Shrubland in a Low - energy Humid Environment

Hailong WANG[1#+]
[1]Sun Yat-sen University

HS27-D2-PM1-P-180 | HS27-A015

Assessment of Evapotranspiration in the Haihe Plain of China Using Hydrological Model

Chen SUN[1#+], Songcai YOU[2], Li REN[3]
[1]Institute of Environment and Sustainable Development in Agriculture, Chinese Academy of Agricultural Sciences, [2]Chinese Academy of Agricultural Sciences, [3]China Agricultural University

HS28-D2-PM1-P-181 | HS28-A001

Using GSFLOW Model to Evaluate Spatio-temporal Patterns of Groundwater-surface Water Interactions Under Scenarios of Climate Change in Northeastern Taiwan

Yung-Chia CHIU[1#+], Chun-Kuo YEH[1]
[1]National Taiwan Ocean University

HS28-D2-PM1-P-182 | HS28-A005

Long-term Monitoring of Impacts of Winds on a Hinoki Cypress Plantation, Japan

Yoshiyuki INAGAKI[1#+], Atsushi SAKAI[1]
[1]Forestry and Forest Products Research Institute

HS28-D2-PM1-P-183 | HS28-A007

The Effects of Typhoon-induced River Fragmentation on the Downstream Water Chemistry

Tsung-Yu LEE[1#+], Yung-Chia CHIU[2], Shao-Yiu HSU[1]
[1]National Taiwan Normal University, [2]National Taiwan Ocean University

HS28-D2-PM1-P-184 | HS28-A009

Quantifying the Impacts of Typhoon Rainfall on the Sediment Supply and Removal for Kaoping Watershed

Yichin CHEN[1#+], En-Ru LIU[1], Hsin-Hung WU[1]
[1]National Changhua University of Education

HS28-D2-PM1-P-186 | HS28-A012

Rainfall-runoff Characteristics in a Tropical Forest Watershed, Puchong, Selangor, Malaysia

Mariko SAITO[1#+], Maki TSUJIMURA[1], Siti NURHADAYU[2], Siti FATIMAH[2], Faizal HAKIM[2]
[1]University of Tsukuba, [2]Universiti Putra Malaysia

HS32-D2-PM1-P-187 | HS32-A001

Using the Image of Unmanned Aerial Vehicle to Estimating the Soil Water Content with the Color Calibration Method

Hong-Yi LI[1#+], Hong Ru LIN[1], Jyun-Lin CHEN[1], Shao-Yang HUANG[1], Jet-Chau WEN[1]
[1]National Yunlin University of Science and Technology

HS32-D2-PM1-P-188 | HS32-A003

Improvement of Mean Areal Rainfall Accuracy Using Radar Rainfall Estimation Method by Considering Orographic Effects in Dam Basin

Seongsim YOON[1#+]
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HS32-D2-PM1-P-189 | HS32-A006

Measurement of Snow Distribution Using RTK-UAV

Hiroyuki OBANAWA[1#+]
[1]National Agriculture and Food Research Organization

HS32-D2-PM1-P-190 | HS32-A007

Application of LSPIV Technology for Discharge Measurement During the Flooding Season

Hyeonseok CHOI[1#+]
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HS32-D2-PM1-P-191 | HS32-A008

Development of High Resolution Multipurpose Precipitation Gauge for Measuring Spatial Distribution of Precipitation
Jeongho CHOI[1#+], Sanghun LIM[2], Myoungsun HAN[2], Bong-Joo JANG[2]
[1]Chosun College of Science & Technology, [2]Korea Institute of Civil Engineering and Building Technology

HS32-D2-PM1-P-193 | HS32-A011

Influence of Precipitation Seasonality on Radar Reflectivity and Rain Rate Relationship over South Korea
Tae Jeong KIM[1+], Hyun-Han KWON[2#]
[1]Korea Institute of Hydrological Survey, [2]Sejong University

HS32-D2-PM1-P-194 | HS32-A014

The Influence of Climate Change on Distribution of Soil Erosion and Deposition in Kaoping River Watershed
Ching-Nuo CHEN[1#+], Chih-Heng TSAI[2], Samkele TFWALA[3]
[1]National Pingtung University of Science and Technology, [2]Chia Nan University of Pharmacy and Science, [3]University of Swaziland

HS32-D2-PM1-P-195 | HS32-A015

Scour Depth Forecasting Around Bridge Pier Using Numerical Simulation and Artificial Neural Network
Siang-Ying CHEN[1#+], Peng-An CHEN[1], Fong-Zuo LEE[1], Ming-Jui CHANG[1], Jihn-Sung LAI[1], Yih-Chi TAN[1], Ming-Daw SU[1]
[1]National Taiwan University

HS33-D2-PM1-P-196 | HS33-A003

Assessment of Hydrological Application of X-band Dual-polarization Radar in Seoul City
Jungsoo YOON[1#+], Seok Hwan HWANG[1], Narae KANG[1], Byung-Hwa OH[1,2], Jeongha LEE[2]
[1]Korea Institute of Civil Engineering and Building Technology, [2]University of Science and Technology

HS33-D2-PM1-P-197 | HS33-A005

Analysis of Spatial Distribution Characteristics in Small Area by dense Precipitation Observation
Hyunjung KIM[1#+], Dong Gu KIM[1], Chan Joo LEE[1], Bong-Joo JANG[1], Won KIM[1]
[1]Korea Institute of Civil Engineering and Building Technology

HS33-D2-PM1-P-198 | HS33-A006

Forecast of Local Precipitation Using Radar Data and Deep Learning for Flash Flood Prediction
Hui-Seong NOH[1#+], Dong-Ryul LEE[1], Seok Hwan HWANG[1], Narae KANG[1]
[1]Korea Institute of Civil Engineering and Building Technology

HS33-D2-PM1-P-199 | HS33-A009

Prediction of Rainfall Erosivity in Ungauged Regions in South Korea
Joon-Hak LEE[1#], Hong-Hyun KIM[1+]
[1]Korea Military Academy

HS33-D2-PM1-P-200 | HS33-A010

A Prediction Technique of Stream Discharge at Tide Affected Zone
Seok Hwan HWANG[1#+], Byung-Hwa OH[1,2], Jeongha LEE[1,2], Jungsoo YOON[1], Narae KANG[1], Hui-Seong NOH[1]
[1]Korea Institute of Civil Engineering and Building Technology, [2]University of Science and Technology

ST Poster Presentations

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ST02-D2-PM1-P-201 | ST02-A002

Topside Ionospheric Conditions During the 7-8 September 2017 Geomagnetic Storm
Oluwaseyi JIMOH[1#+], Jiuhou LEI[1], Jiahao ZHONG[1]
[1]University of Science and Technology of China

ST02-D2-PM1-P-203 | ST02-A010

Simulation of Geomagnetically Induced Current (GIC) Flowing in 500 kV Power Grid in Japan Including a Three-dimensional Ground Inhomogeneity
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ST02-D2-PM1-P-204 | ST02-A011

Magnetospheric Responses to Interplanetary Phenomena
Yuri YERMOLAEV[1#+], Irina LODKINA[1], Michael YERMOLAEV[1], Natalia BORODKOVA[1], Maria RIAZANTSEVA[1], Liudmila RAKHMANOVA[1]
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ST02-D2-PM1-P-206 | ST02-A015

Relationship Between the Temperatures of Solar Corona and Planetary Magnetosheaths
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ST02-D2-PM1-P-207 | ST02-A016

Anomaly Distribution of Ionospheric Responses to Solar Flares
Huijun LE[1#+], Libo LIU[1], Yiding CHEN[1], Hui ZHANG[1]
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ST02-D2-PM1-P-208 | ST02-A018

Asymmetric Deformation of the Earth's Magnetosphere Under Low-density Solar Wind
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ST02-D2-PM1-P-209 | ST02-A021

Dependence of the Intensity of Major Geomagnetic Storms on the Associated Solar Wind Parameters
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ST03-D2-PM1-P-213 | ST03-A009

Field-aligned Structures of the Poloidal-mode ULF Wave Electric Field: Phase Relationship Implications
Jie REN[1#+], Qiugang ZONG[1], Yifan ZHU[1], Xuzhi ZHOU[1]
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ST03-D2-PM1-P-214 | ST03-A010

The Effect of the Birkeland Current System on Intermediate-scale Plasma Characteristics in the High-latitude Ionosphere
Magnus IVARSEN[1#+], Lasse CLAUSEN[1], Andres SPICHER[1], Yaqi JIN[1]
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ST03-D2-PM1-P-215 | ST03-A013

Ion Flux Modulations Associated with Poloidal Mode ULF Waves in a Dawnside Plasmaspheric Plume

Shuai ZHANG[1#+], Anmin TIAN[1], Alexander DEGELING[1], Quanqi SHI[1], Yixin HAO[2], Jie REN[2], Wenlong LIU[3], Qiugang ZONG[2], Xuzhi ZHOU[2], Wei-Jie SUN[4], Xiaochen SHEN[1], Shichen BAI[1]

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ST03-D2-PM1-P-217 | ST03-A016

Ionospheric Response to Solar Wind Dynamic Pressure Increases: Event Analysis and Statistical Results

Jinyan ZHAO[1#+], Quanqi SHI[1], Anmin TIAN[1]

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ST03-D2-PM1-P-218 | ST03-A017

Earth's Polar Cap Auroral Arc Growing from Dayside and Nightside

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ST03-D2-PM1-P-219 | ST03-A018

Pressure Characteristics and Their Roles of Spontaneous Hot Flow Anomalies: MMS Observations

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ST04-D2-PM1-P-221 | ST04-A001

Solar Wind Suprathermal Electrons

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ST04-D2-PM1-P-222 | ST04-A002

PKU Energetic Particle Instrument

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ST04-D2-PM1-P-223 | ST04-A008

Solar Energetic Electrons Associated with Extreme Ultraviolet Jets

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ST04-D2-PM1-P-224 | ST04-A009

A High Temporal, Spatial and Energy Resolution Grid-based Energetic Neutral Atom (ENA) Imager: The Physical Design

Yongfu WANG[1#+], Qiugang ZONG[1], Linghua WANG[1], Hongfei CHEN[1], Zou HONG[1]

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ST04-D2-PM1-P-225 | ST04-A012

Shock Acceleration of ~1-100 Kev Electrons at Earth Bow Shock

Zixuan LIU[1+], Linghua WANG[1#], Liu YANG[1], Jiansen HE[1], Quanqi SHI[2], Hui TIAN[1], Chuanyi TU[1]

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ST04-D2-PM1-P-226 | ST04-A014

Microwave Turn-over Frequencies, Emission Temperatures, and Impulsivity for White-light Solar Flares

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ST04-D2-PM1-P-227 | ST04-A016

How Meandering are Interplanetary Magnetic Field Lines?

Gang LI[1#+], Lulu ZHAO[2], Linghua WANG[3], Ashraf MORADI[4]

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ST05-D2-PM1-P-228 | ST05-A004

The Monte Carlo Simulation of PKU Energetic Particle Instrument

Xiangqian YU[1#], Linghua WANG[1], Zixuan LIU[1+], Huang XIN[1], Qiugang ZONG[1], Yongfu WANG[1], Weihong SHI[1], Hongfei CHEN[1], Zou HONG[1], Fu HAOBO[1]

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ST05-D2-PM1-P-229 | ST05-A005

The Deflection Magnet Design for PKU Energetic Particle Instrument

Xiangqian YU[1#], Linghua WANG[1], Fu HAOBO[1], Zixuan LIU[1+], Qiugang ZONG[1], Weihong SHI[1], Yongfu WANG[1], Hongfei CHEN[1], Zou HONG[1], Huang XIN[1]

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ST06-D2-PM1-P-231 | ST06-A004

Damping of Slow Surface Sausage Modes in Photospheric Waveguides

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ST06-D2-PM1-P-232 | ST06-A014

Magnetic Structure of a Solar Dark Filament

Yukio KATSUKAWA[1], Takaaki YOKOYAMA[2#+], Masumi SHIMOJO[1]

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ST06-D2-PM1-P-233 | ST06-A015

Physical Origin of Spiraling Wave Patterns in a Pore

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ST06-D2-PM1-P-234 | ST06-A019

A New Approach to Identifying MHD Wave Modes in Sunspots and Pores

Gary VERTH[1#+], Viktor FEDUN[1], David JESS[2], Anwar ALDHAFEERI[1], Marco STANGALINI[3], Wernher BREVIS[4], Cristian ESCAURIAZA[4]

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ST06-D2-PM1-P-235 | ST06-A020

A New Shock-based Mechanism for Transferring Energy Between the Chromosphere and Corona

Viktor FEDUN[1#+], Ben SNOW[2], Frederick GENT[3], David JESS[4], Samuel GRANT[4], Samuel SKIRVIN[1], Gary VERTH[1]

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ST06-D2-PM1-P-236 | ST06-A022

Magnetic Loops Above a Small Flux-emerging Region Observed by Iris, Hinode and SDO

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ST08-D2-PM1-P-238 | ST08-A001

Relativistic HPIC-LBM and its Application in Large Temporal-spatial Turbulent Magnetic Reconnection
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ST08-D2-PM1-P-240 | ST08-A008

MMS Study of the Structure and Evolution of Ion-scale Flux Ropes in Earth's Magnetotail Plasma Sheet
Wei-Jie SUN[1#+], James SLAVIN[1], Gangkai POH[2,3]
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ST08-D2-PM1-P-241 | ST08-A009

Low-twisted Interplanetary Flux Ropes
Marek VANDAS[1#+]
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ST08-D2-PM1-P-242 | ST08-A011

Contribution of Helium Ions in Electric Current of Magnetic Cloud
Yuri YERMOLAEV[1#+], Irina LODKINA[1], Michael YERMOLAEV[1], Natalia BORODKOVA[1], Maria RIAZANTSEVA[1], Liudmila RAKHMANOVA[1]
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ST08-D2-PM1-P-243 | ST08-A013

Dissipation of Earthward Propagating Flux Rope Through Re-reconnection with Geomagnetic Field: A MMS Case Study
Gangkai POH[1,2#+], James SLAVIN[3], San LU[4], Guan LE[5], Doga OZTURK[3], Wei-Jie SUN[3], Shasha ZOU[3], Jonathan EASTWOOD[6], Rumi NAKAMURA[7], Wolfgang BAUMJOHANN[7], Chris RUSSELL[4], Daniel GERSHMAN[1], Barbara GILES[1], Craig POLLOCK[8], Thomas MOORE[1], James BURCH[9], Roy TORBERT[10]
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ST08-D2-PM1-P-247 | ST08-A023

Numerical Simulations of Stealth CMEs: How Are They Different From "Usual" CMEs?
Dana-Camelia TALPEANU[1,2#], Emmanuel CHANÉ[1], Stefaan POEDTS[1], Elke D'HUYS[2], Ilia ROUSSEV[3+], Marilena MIERLA[2]
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ST09-D2-PM1-P-248 | ST09-A008

Dynamics and Structures of the Alfven Transition Layer: 3D PIC Global Simulation of the Solar Wind – Terrestrial Magnetosphere Interaction
Dongsheng CAI[1#+], Bertrand LEMBEGE[2]
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ST09-D2-PM1-P-249 | ST09-A009

Magnetic Dissipation Due to Electromagnetic Turbulence in Reconnection Current Layer
Keizo FUJIMOTO[1#+], Richard SYDORA[2]
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ST09-D2-PM1-P-250 | ST09-A010

2D PIC Simulation of Wave Emissions Excited within the Front of a Quasi-perpendicular Shock: From the Lower-hybrid to the Electron Cyclotron Frequency
Bertrand LEMBEGE[1#+], Laurent MUSCHIETTI[2], Viktor DECYK[3]
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ST10-D2-PM1-P-251 | ST10-A001

Application of Homogeneous Bernoulli Integral to Calculating the Polytropic Index of Ion in the Magnetosphere and the Solar Wind Near the Earth
Xuexia PANG[1#+], Jinbin CAO[2], Zhan Guo LIU[1], Feida WANG[1]
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ST11-D2-PM1-P-253 | ST11-A006

Energetic Electron Detector Onboard Chinese MEO Navigation Satellite
Yuguang YE[1#+], Zou HONG[1], Qiugang ZONG[1]
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ST11-D2-PM1-P-254 | ST11-A010

Parametric Sensitivity of the Formation of Reversed Energy Spectrum Caused by Plasmaspheric Hiss
Wenxun ZHANG[1+], Binbin NI[1#], He HUANG[1], Xudong GU[1], Hong ZHAO[2], Xinlin LI[2], Dan BAKER[2], Fu SONG[1]
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ST11-D2-PM1-P-255 | ST11-A011

Global Morphology of Low-band Chorus Wave Intensity Reconstructed Using 5-year POES Electron Measurements
Yang ZHANG[1+], Binbin NI[1#], Xudong GU[1], Fu SONG[1], Xing CAO[1], Zheng XIANG[1]
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ST11-D2-PM1-P-256 | ST11-A012

Global Distribution of Dayside ECH Waves Observed by MMS
Xudong GU[1#+], Lou YUEQUN[1], Binbin NI[1], Fu SONG[1], Zheng XIANG[1], Xing CAO[1]
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ST11-D2-PM1-P-257 | ST11-A013

Transient Three-belt Structure Below 1 MeV in the Earth's Radiation Belt: Energy Dependence and its Evolutions
Yixin HAO[1#+], Qiugang ZONG[1], Xuzhi ZHOU[1], Alexander DEGELING[2], Robert RANKIN[2], Seth CLAUDEPIERRE[3], Geoffrey REEVES[4]
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ST11-D2-PM1-P-259 | ST11-A017

The Impressive Correlation Between Substorm Activity and the Rebuilding of Earth's Radiation Belts
Allison JAYNES[1#+], David MALASPINA[2], Veronica DIKE[3]
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ST12-D2-PM1-P-261 | ST12-A005

Modulation of Whistler Mode Waves
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ST12-D2-PM1-P-262 | ST12-A007

Examining Minimum Cyclotron Resonant Electron Energy of EMIC Waves with MMS
Si LIU[1#+], Qinghua ZHOU[1], Chang YANG[1]
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ST12-D2-PM1-P-263 | ST12-A008

Precipitation of Relativistic Electrons Under Resonant Interaction with Electromagnetic Ion-cyclotron Wave Packets
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ST12-D2-PM1-P-264 | ST12-A010

Study on Interactions Between Electrons and Observed Whistler-mode Waves at Dipolarization Sites in the Inner Plasma Sheet
Kaiti WANG[1#+], Fumiko OTSUKA[2], Tohru HADA[3], Ching-Huei LIN[4]
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ST12-D2-PM1-P-265 | ST12-A012

Nonlinear Drift Resonance Between Charged Particles and ULF Waves
Xuzhi ZHOU[1#+], Li LI[1], Yoshiharu OMURA[2], Qiugang ZONG[1], Yixin HAO[1], Seth CLAUDEPIERRE[3]
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ST12-D2-PM1-P-266 | ST12-A013

The Effect of Poloidal Mode Field Line Resonance Structure on Drift Resonant Electron Dynamics
Alexander DEGELING[1#], Robert RANKIN[2], Yongfu WANG[3+], Quanqi SHI[1], Anmin TIAN[1]
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ST12-D2-PM1-P-268 | ST12-A015

Two-dimensional Simulation of Whistler Mode Wave Packets Interacting with Energetic Electrons
Takeshi NOGI[1#+], Yoshiharu OMURA[1]
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ST12-D2-PM1-P-269 | ST12-A016

Cross-reference Simulations by Scalable Communication Library for the Study of Wave-particle Interactions in Planetary Magnetospheres
Yuto KATOH[1#+], Keiichiro FUKAZAWA[2], Takeshi NANRI[3], Yohei MIYAKE[4]
[1]Tohoku University, [2]Kyoto University, [3]Kyushu University, [4]Kobe University

ST13-D2-PM1-P-270 | ST13-A004

The Current Sheet Flapping Motions Induced by Non-adiabatic Ions: Case Study
Xinhua WEI[1#+], Chunlin CAI[1]
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ST13-D2-PM1-P-271 | ST13-A008

Study on Radial Diffusion of Protons in the Inner Magnetosphere
Lv XINGZHI[1], Wenlong LIU[1#+]
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ST13-D2-PM1-P-272 | ST13-A010

An Optimal Algebraic Approach to Multi-spacecraft Field Analysis
Gerard CHANTEUR[1#+]
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ST13-D2-PM1-P-273 | ST13-A011

Source, Loss, and Solar Cycle Variations of Inner Belt Electrons and Protons
Xinlin LI[1#+], Kun ZHANG[1], Zheng XIANG[2]
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ST14-D2-PM1-P-274 | ST14-A004

Low Thermosphere Temperature Variations Observed by TIMED/GUVI
Yongliang ZHANG[1#+], Larry PAXTON[1], Robert SCHAEFER[1]
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ST14-D2-PM1-P-275 | ST14-A006

Dst Index Prediction Model Combining Empirical Model and Neural Network Algorithm
Jaejin LEE[1#+], Wooyeon PARK[1]
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ST14-D2-PM1-P-276 | ST14-A017

In-orbit Test Result for Korea Space Environment Monitor (KSEM) on GEO-KOMPSAT-2A
Go Woon NA[1#+], Jongho SEON[1], Kyu-Sung CHAE[1], Yuchul SHIN[1], Ju WOO[1], Woohyeong SEOL[1], Chanhaeng LEE[1], Sungmin PAK[1], Seung-hyuk SHIN[1], Hans-Ulrich AUSTER[2], Christian STRAUCH[3], Werner MAGNES[4], David FISCHER[4]
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ST14-D2-PM1-P-277 | ST14-A018

A Statistical Analysis of the Swarm Satellites Orbit Decay Caused by Geomagnetic Storms
Yonghui MA[1#+], Ziqi ZHAO[2]
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ST14-D2-PM1-P-278 | ST14-A020

Model Development for the Thermosphere and Ionosphere Weather Forecasting
Tzu-Wei FANG[1#+], Naomi MARUYAMA[1], Tim FULLER-ROWELL[1], Joe SCHOONOVER[1], Zhuxiao LI[1], George MILLWARD[1], Houjun WANG[2]
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ST14-D2-PM1-P-279 | ST14-A021

Monitoring the Global Evolution of the Storm-ring Current and the Storm Indices from Confined Ground Geomagnetic Observatories
Gang ZENG[1#+], Chao SHEN[2], Zhaojin RONG[3], Xinlin LI[4], Tao CHEN[3], Zhiqing CHEN[3], Yonghui MA[1]
[1]Harbin Institute of Technology, Shenzhen, [2]Harbin Institute of Technology, [3]Chinese Academy of Sciences, [4]University of Colorado Boulder

ST15-D2-PM1-P-280 | ST15-A004

A New Localised Tornado Model for a Magnetised Plasma
Oleg ONISHCHENKO[1], Viktor FEDUN[2#+], Gary VERTH[2], Oleg POKHOTELOV[1]
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ST15-D2-PM1-P-281 | ST15-A005

New Code for Identification of Curvilinear Structures in the Solar Atmosphere
Yuyang YUAN[1#+], Gary VERTH[1], Viktor FEDUN[1]
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ST15-D2-PM1-P-282 | ST15-A008

Do Flux Pile-up Models of Solar Photospheric Reconnection Work?
Sergiy SHELYAG[1#+], Yuri LITVINENKO[2], Viktor FEDUN[3], Gary VERTH[3], José Juan GONZÁLEZ[4], Francisco GUZMÁN[5]
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ST16-D2-PM1-P-283 | ST16-A001

Diamagnetic Plasmoids as a Part of Diamagnetic Structures of the Slow Solar Wind and Their Impact on the Earth's Magnetosphere

Vladimir PARKHOMOV[1#], Alexei DMITRIEV[2+], Eselevich VICTOR[3], Eselevich MAKSIM[3], Vedernikova TATYANA[1]

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ST16-D2-PM1-P-284 | ST16-A002

Collisionless Plasmas' Processes at Magnetospheric Boundaries: Strong Nonlinear Interactions

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ST16-D2-PM1-P-286 | ST16-A007

Geosynchronous Magnetopause Crossings in the 24 Solar Cycle

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ST17-D2-PM1-P-287 | ST17-A005

Rapid Precipitation by EMIC Rising-tone Emissions of Relativistic Electrons Observed by the Van Allen Probes Mission

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ST18-D2-PM1-P-288 | ST18-A002

On the Energy Conversion Rate During Collisionless Magnetic Reconnection

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ST18-D2-PM1-P-289 | ST18-A004

MMS Observations of a Kinetic-scale Electron Vortex Magnetic Hole in a Reconnection Diffusion Region

Zhihong ZHONG[1+], Meng ZHOU[1,2#], Shiyong HUANG[3], Rongxin TANG[1,4], Xiaohua DENG[3], Ye PANG[1], Haotian CHEN[1]

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ST18-D2-PM1-P-290 | ST18-A005

The Anisotropic Electron Distributions and Associated Whistler Waves in a Series of the Flux Transfer Events at the Magnetopause

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ST18-D2-PM1-P-291 | ST18-A006

Energy Release During Several M and X Class Flares

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ST18-D2-PM1-P-292 | ST18-A008

Electron Magnetohydrodynamics Magnetic Reconnection Experiment on Keda Linear Magnetized Plasma Device

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ST18-D2-PM1-P-293 | ST18-A010

Super-efficient Electron Acceleration by an Isolated Magnetic Reconnection

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ST18-D2-PM1-P-294 | ST18-A014

Extending the FOTE Method to Three-dimensional Flow Fields

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ST18-D2-PM1-P-295 | ST18-A016

Statistical Study of the Interaction Regions Between Earthward Propagating Flux Ropes and the Geomagnetic Field

Hengyan MAN[1+], Meng ZHOU[1,2#], Xiaohua DENG[3], Zhihong ZHONG[1], Christopher RUSSELL[2], William PATERSON[4], Barbara GILES[5], Per-Arne LINDQVIST[6], James BURCH[7], Huishan FU[8]

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ST18-D2-PM1-P-296 | ST18-A017

SOTE: A Nonlinear Method for Magnetic Topology Reconstruction in Space Plasmas

Yangyang LIU[1#+], Huishan FU[1], V. OLSHEVSKY[2], D. PONTIN[3], Chengming LIU[1], Zhe WANG[1]

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ST18-D2-PM1-P-297 | ST18-A021

Electron-scale Vertical Current Sheets in a Bursty Bulk Flow in the Terrestrial Magnetotail

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ST18-D2-PM1-P-298 | ST18-A022

Electron Acceleration and Formation of Power-law Spectra of Energetic Electrons During the Merging Process of Multiple Magnetic Islands: Particle-in-cell Simulations

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ST18-D2-PM1-P-299 | ST18-A023

Formation of Power Law Spectra of Energetic Electrons During Multiple X Line Magnetic Reconnection with a Guide Field

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ST19-D2-PM1-P-301 | ST19-A004

The Hemispheric Asymmetry of Thermospheric Density Responses to Solar Activity

Huijun LE[1#+], Libo LIU[1], Yiding CHEN[1], Hui ZHANG[1]

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ST19-D2-PM1-P-302 | ST19-A005

Hemispheric Asymmetry in the Postnoon and Premidnight Auroral Intensity: An Interplanetary by Effect

Kan LIOU[1#], Elizabeth MITCHELL[1+]

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ST20-D2-PM1-P-303 | ST20-A002

Detect CME from Solar Disk (SDO/AIA) Using Deep Learning

Long XU[1#+], Yihua YAN[1,2], Sixuan LIU[1]

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ST20-D2-PM1-P-304 | ST20-A003 (Invited)

Solar Flares and Magnetic Flux in Active Regions

Huaning WANG[1]

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ST20-D2-PM1-P-305 | ST20-A004

Visual Attention on the Sun: What Do Existing Models Actually Predict?

Jia LI[1#+], Daowei LI[1], Kui FU[1], Long XU[2]

[1]Beihang University, [2]Chinese Academy of Sciences

ST21-D2-PM1-P-306 | ST21-A002

High Performance Ionosphere Plasma Probe, TeNeP

Koichiro OYAMA[1,2#+]

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ST21-D2-PM1-P-307 | ST21-A007

Solar Extreme Ultraviolet Intensity and Plasma Density Measurements Onboard the Cubesat Phoenix

Hui-Kuan FANG[1#+], Alfred CHEN[1], Tsu-Wei TSAU[1], Wen-Hao CHEN[1], Ming-Yang HONG[1], Jyh-Ching JUANG[1], Jiun-Jih MIAU[1]

[1]National Cheng Kung University

ST21-D2-PM1-P-308 | ST21-A008

INSPIRESat-1 and IDEASSat - Small Satellites for Ionospheric Science and Capacity Building

Loren CHANG[1#], Tzu-Ya TAI[1+]

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ST21-D2-PM1-P-309 | ST21-A009

Mission Design of Cubesat Constellation for Studying Atmospheric and Ionospheric Coupling : Impendence Probe for Plasma Measurement

K. RYU[1#+], Eojin KIM[1], Goohwan SHIN[2], Sun Mie PARK[1], Koichiro OYAMA[3,4], Hui Kwan FANG[3]

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ST21-D2-PM1-P-310 | ST21-A011

Analysis of Radiation Penetration and Shielding of Charged Particle Detector

Seung-hyuk SHIN[1+], Jongho SEON[1#], Sungmin PAK[1], Yuchul SHIN[1]

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ST21-D2-PM1-P-311 | ST21-A012

Operation Concept and Initial Results of instruments for the Study of Space Storms(ISSS) Onboard the Next Generation Small Satellite-1 (NEXTSat-1)

Eojin KIM[1#+], K. RYU[1], Kyoung Wook MIN[1], Junchan LEE[2], Young-Soo JO[3], Hoonkyu SEO[1], Jongdae SOHN[3], Gowoon NA[4]

[1]Korea Advanced Institute of Science and Technology, [2]York University, [3]Korea Astronomy and Space Science Institute, [4]Kyung Hee University

ST21-D2-PM1-P-312 | ST21-A014

Discrimination of Electrons and Protons by Pulse Shaping in the Energy Range of 100 to 200 KeV in Silicon Detectors

Woohyeong SEOL[1+], Jongho SEON[1#], Chanhaeng LEE[1]

[1]Kyung Hee University

ST21-D2-PM1-P-313 | ST21-A016

Inter-coupling Mechanism Between Space Weather and Earthquake: Nano Satellites Observations a Step in Framing of Predictive Model

Devi MINAKSHI[1#+], Samiran PATGIRI[1], Ananda BARBARA[1], Anna DEPUEVA[2], Victor DEPUEV[2], Ya Yu RUZHIN[2]

[1]Gauhati University, [2]Institute of Terrestrial Magnetism, Ionosphere and Radio Wave Propagation

ST21-D2-PM1-P-314 | ST21-A017

Virtual Reconfiguration of Integrated Satellite Systems

Oleg BREKHOV[1#+], Pavel ZHDANOV[1]

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ST22-D2-PM1-P-316 | ST22-A006

Update of Japanese Space Weather Research and Operation Activities

Mamoru ISHII[1#+]

[1]National Institute of Information and Communications Technology

ST22-D2-PM1-P-317 | ST22-A008

On Application of Geostationary BeiDou Satellites in Ionospheric TID Interferometry for Near-Equatorial Ionosphere

Ekaterina KOZLOVTSEVA[1#+], Nikita TERESHIN[1]

[1]Lomonosov Moscow State University

ST22-D2-PM1-P-318 | ST22-A010

Ionospheric Space Weather Data Product of FORMOSAT-7/COSMIC-2

Charles LIN[1#+], P. K. RAJESH[1], Chi-Yen LIN[2], Chia-Hung CHEN[1], Jia-Ting LIN[1]

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ST22-D2-PM1-P-319 | ST22-A012

Real-time Solar Flare Prediction by Deep Flare Net

Naoto NISHIZUKA[1#+], Yuki KUBO[1], Komei SUGIURA[1], Mitsue DEN[1], Mamoru ISHII[1]

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ST23-D2-PM1-P-320 | ST23-A002

A New Analytical Chorus Wave Model Derived from Van Allen Probe Observations

Dedong WANG[1#+], Yuri SHPRITS[1], Irina ZHELAVSKAYA[1]

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ST23-D2-PM1-P-321 | ST23-A006

DyFK Model Simulations of Plasma Transport Between SED Plume and Plasmaspheric Plume

Zheng QIAO[1#+]

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ST23-D2-PM1-P-322 | ST23-A007

Properties of Whistler Mode Waves in Earth's Plasmasphere and Plumes

Run SHI[1#+], Wen LI[2,3]

[1]Wuhan University, [2]Boston University, [3]University of California, Los Angeles

ST23-D2-PM1-P-324 | ST23-A010

Statistic Analysis of Fast Magnetosonic Waves with Observations of the Van Allen Probes

Fei YAO[1#+]

[1]Wuhan University

ST23-D2-PM1-P-325 | ST23-A013

Energetic Ions Scattered into the Loss Cone with Observations of the Cluster Satellite

Ying XIONG[1#+], Zhigang YUAN[2]

[1]Hubei University of Technology, [2]Wuhan University

ST24-D2-PM1-P-326 | ST24-A003

Magnetosphere-ionosphere Coupling Through Ionospheric Conductivity

Mei-Ching FOK[1#+], Suk-Bin KANG[2], Natalia BUZULUKOVA[1,3], Alex GLOCER[1]

[1]NASA Goddard Space Flight Center, [2]NASA/GSFC, [3]University of Maryland, College Park

ST24-D2-PM1-P-327 | ST24-A005

Warm Plasma Cloak and Wave-particle Interaction in the Inner Magnetosphere

Natalia BUZULUKOVA[1,2#+], Shannon HILL[2], Mei-Ching FOK[1], Scott BOARDSEN[3]

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ST24-D2-PM1-P-328 | ST24-A007

Quantifying an Impact of the Cross-energy Coupling in the Inner Magnetosphere on Plasmaspheric Composition

Naomi MARUYAMA[1#], Mei-Ching FOK[2+], Phil RICHARDS[3], Dmytro KOTOV[4], Yuki OBANA[5], Yoshizumi MIYOSHI[6], George KHAZANOV[2]

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ST25-D2-PM1-P-329 | ST25-A003

Difference of Intermittency Between Electric Field and Magnetic Field Fluctuations from Ion Scale Down to Sub-electron Scale in the Magnetosheath Turbulence

Xingyu ZHU[1+], Jiansen HE[1#], Ying WANG[1], Luca SORRISO-VALVO[2]

[1]Peking University, [2]Italian Research Council

ST25-D2-PM1-P-330 | ST25-A005

Unified Quantitative Description of Solar Wind Turbulence Intermittency in Both Inertial and Kinetic Ranges

Jiansen HE[1#+], Ying WANG[1], Luca SORRISO-VALVO[2]

[1]Peking University, [2]Italian Research Council

ST25-D2-PM1-P-331 | ST25-A008

Observations of Coherent Structures in the Turbulent Magnetosheath Plasma

Kui JIANG[1#+], Shiyong HUANG[1]

[1]Wuhan University

ST25-D2-PM1-P-332 | ST25-A011 (Invited)

The Peculiar Properties of Plasma Turbulence in Fast Solar Wind Streams of Different Nature

Maria RIAZANTSEVA[1#+], Liudmila RAKHMANOVA[1], Georgy ZASTENKER[1], Yuri YERMOLAEV[1], Irina LODKINA[1], Vyacheslav BUDAEV[2], Jana SAFRANKOVA[3], Zdenek NEMECEK[3], Lubomir PRECH[3]

[1]Russian Academy of Sciences, [2]National Research Centre Kurchatov Institute, [3]Charles University

ST26-PS17-D2-PM1-P-334 | ST26-PS17-A008

Design of Visible and Ultraviolet Imagers for FACTORS - A Future Satellite Mission for Understanding the Coupling and Transportation Processes in the Upper Atmosphere

Takeshi SAKANOI[1#+], Masafumi HIRAHARA[2], Kazushi ASAMURA[3], Yoshizumi MIYOSHI[2], Tomohiko WATANABE[2], Takanori NISHIYAMA[4], Shin-Ichiro OYAMA[5], Yoshifumi SAITO[3], Keisuke HOSOKAWA[6], Masatoshi YAMAUCHI[7], Hirotsugu KOJIMA[8], Naritoshi KITAMURA[9], Yasunobu OGAWA[4], Ayako MATSUOKA[3]

[1]Tohoku University, [2]Nagoya University, [3]Japan Aerospace Exploration Agency, [4]National Institute of Polar Research, [5]Institute for Space-Earth Environmental Research, [6]University of Electro-Communications, [7]IRF Kiruna, [8]Kyoto University, [9]The University of Tokyo

ST26-PS17-D2-PM1-P-335 | ST26-PS17-A009

An All-sky Heliospheric Imager (ASHI) for Viewing Thomson-scattered Light: Status and Near-future Plans

Mario BISI[1#+], Bernard JACKSON[2], Andrew BUFFINGTON[2], Philippe LEBLANC[2], Hsiu-Shan YU[2], Paul HICK[2], William GRAINGER[1]

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ST26-PS17-D2-PM1-P-336 | ST26-PS17-A010

Development of Telescopic Camera (TENGOO) Performance Evaluation Device for MMX

Hiroki KATO[1#+], Shingo KAMEDA[1], Masanobu OZAKI[2], Takeshi TAKASHIMA[2], Keigo ENYA[2], Ko ISHIBASHI[3], Takahiro ISHIMARRU[2], Naoya OSADA[1]

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ST26-PS17-D2-PM1-P-337 | ST26-PS17-A011

Interpretation on Slight Asymmetry of Analyzer Characteristics of MIA On-board the Mio by Means of a Model Calculation of 3-D Potential Distribution

Wataru MIYAKE[1#+], Yoshifumi SAITO[2], Shoichiro YOKOTA[3]

[1]Tokai University, [2]Japan Aerospace Exploration Agency, [3]Osaka University

ST26-PS17-D2-PM1-P-338 | ST26-PS17-A014

High-resolution Ground Penetrating Radar for Mapping Structures of Putative Ice Deposits on the Moon

Hideaki MIYAMOTO[1#+], Atsushi KUMAMOTO[2], Toshiyuki NISHIBORI[3], Takafumi NIIHARA[1], Motoyuki SATO[2], Hiroki SENSHU[4], Takahiro IWATA[3], Makito KOBAYASHI[1], Fuminori TSUCHIYA[2], Takeshi TSUJI[5]

[1]The University of Tokyo, [2]Tohoku University, [3]Japan Aerospace Exploration Agency, [4]Chiba Institute of Technology, [5]Kyushu University

ST26-PS17-D2-PM1-P-339 | ST26-PS17-A015

Alpha Particle X-ray Spectrometer On-board Chandrayaan-2 Rover

M. SHANMUGAM[1#+], Santosh VADAWALE[1], Arpit PATEL[1], Mithun N.P.S.[1], Hitesh ADALJA[1], Tinkal LADIYA[1], Shiv Kumar GOYAL[1], Neeraj Kumar TIWARI[1], Arup Kumar HAIT[2], Nishant SINGH[1], Sushil KUMAR[1], Amit Basu SARBADHIKARI[1], Garima ARORA[1], Saleem Basha M[3], Anil BHARDWAJ[1]

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ST26-PS17-D2-PM1-P-341 | ST26-PS17-A017

Observation Plans in the Cruising Phase of the Solar Power Sail: OKEANOS

Takahiro IWATA[1#+], Tatsuaki OKADA[1], Shuji MATSUURA[2], Kohji TSUMURA[3], Hajime YANO[1,4], Takayuki HIRAI[5], Ayako MATSUOKA[1], Daisuke YONETOKU[6], Tatehiro MIHARA[7], Toshihiro CHUJO[1], Osamu MORI[1]

[1]Japan Aerospace Exploration Agency, [2]Kwansei Gakuin University, [3]Tohoku University, [4]Massachusetts Institute of Technology, [5]Chiba Institute of Technology, [6]Kanazawa University, [7]RIKEN Advanced Institute for Computational Science

ST27-D2-PM1-P-343 | ST27-A001

Electromagnetic Linear Dispersion Relation for Plasma with a Drift Across Magnetic Field

Takayuki UMEDA[1#+], Takuma NAKAMURA[2]

[1]Nagoya University, [2]Austrian Academy of Sciences

ST27-D2-PM1-P-344 | ST27-A002

Modeling of Magnetic Field in the Magnetosheath Using Elliptic Coordinates
Marek VANDAS[1#+]
[1]*Czech Academy of Sciences*

ST27-D2-PM1-P-345 | ST27-A005

Time-variable Magnetic Field Responses at Ceres and the Moon
Yingdong JIA[1#+], Julie CASTILLO-ROGEZ[2], Carol RAYMOND[2], Michaela VILLARREAL[1], Christopher RUSSELL[1]
[1]*University of California, Los Angeles,* [2]*Jet Propulsion Laboratory, California Institute of Technology*

ST27-D2-PM1-P-346 | ST27-A006

Interaction of Sun-grazing Comets and the Solar Coronal Plasma and Magnetic Field
Yingdong JIA[1#+], William PESNELL[2], Wei LIU[3,4], Cooper DOWNS[5], Paul BRYANS[6]
[1]*University of California, Los Angeles,* [2]*NASA Goddard Space Flight Center,* [3]*Lockheed Martin Solar and Astrophysics Laboratory,* [4]*Stanford University,* [5]*Predictive Science Inc.,* [6]*University Corporation for Atmospheric Research*

ST27-D2-PM1-P-347 | ST27-A011

Development of Coupling Framework for Macro and Micro Scale Simulations of the Magnetosphere
Keiichiro FUKAZAWA[1#+], Yuto KATOH[2], Takeshi NANRI[3], Yohei MIYAKE[4]
[1]*Kyoto University,* [2]*Tohoku University,* [3]*Kyushu University,* [4]*Kobe University*

ST28-D2-PM1-P-348 | ST28-A003

Pre-flare Radio Signatures and Their Solar Associations
Ya-Hui YANG[1#+], Yung-Chi YANG[1], Shao-Fu HSIEH[1], Baolin TAN[2], Chengming TAN[2], Yihua YAN[2,3]
[1]*National Central University,* [2]*Chinese Academy of Sciences,* [3]*University of Chinese Academy of Sciences*

ST28-D2-PM1-P-349 | ST28-A004

Observations of Interplanetary Scintillation (IPS) of the 13 May 2005 Eruption: Numerical Models
Oyuki CHANG[1#+], Ricardo F. GONZALEZ[2], Mario BISI[1], Richard FALLOWS[3]
[1]*United Kingdom Research and Innovation - Science & Technology Facilities Council,* [2]*Universidad Nacional Autónoma de México,* [3]*ASTRON - The Netherlands Institute for Radio Astronomy*

ST28-D2-PM1-P-350 | ST28-A005

The Array for MUSER in Lower Frequency
Cang SU[1#+], Yihua YAN[1,2], Wei WANG[1]
[1]*Chinese Academy of Sciences,* [2]*University of Chinese Academy of Sciences*

ST28-D2-PM1-P-351 | ST28-A006

Complex Electromagnetic Environment and RFI Mitigation Measures at Mingantu Observing Station
Lihong GENG[1#+], Donghao LIU[1], Cang SU[1], Sha LI[1], Zhijun CHEN[1], Yihua YAN[1,2]
[1]*Chinese Academy of Sciences,* [2]*University of Chinese Academy of Sciences*

ST28-D2-PM1-P-352 | ST28-A008

The Electromagnetic Compability of MUSER
Zhijun CHEN[1#+], Yihua YAN[1,2], Sha LI[1], Wei WANG[1]
[1]*Chinese Academy of Sciences,* [2]*University of Chinese Academy of Sciences*

ST29-D2-PM1-P-353 | ST29-A002

Geant4 Model Calculation and Energetic Particle Observation with HEP/Arase in the Inner Radiation Belt
Honoka TODA[1#+], Wataru MIYAKE[1], Takefumi MITANI[2], Takeshi TAKASHIMA[2], Yoshizumi MIYOSHI[3], Inchun PARK[3], Tomoaki HORI[3]
[1]*Tokai University,* [2]*Japan Aerospace Exploration Agency,* [3]*Nagoya University*

ST29-D2-PM1-P-354 | ST29-A004

Observations of Very Narrow Band Structures of Ions with Energies from ~0.1 to ~20 KeV in the Plasmaspheric Region
Junhyun LEE[1#+], Ensang LEE[1], Khan-Hyuk KIM[1]
[1]*Kyung Hee University*

ST29-D2-PM1-P-355 | ST29-A008

Chorus Element Properties: Statistics from Automated Detection
Craig KLETZING[1#+], Ananya SEN GUPTA[1]
[1]*The University of Iowa*

ST30-D2-PM1-P-356 | ST30-A001

Global Plasma Density Irregularity Distributions Observed by Advanced Ionospheric Probe Onboard FORMOSAT-5 Satellite
Chi-Kuang CHAO[1#+]
[1]*National Central University*

ST30-D2-PM1-P-357 | ST30-A002

Automatic Identification of Spread F Using Decision Tree
Ting LAN[1#+], Chunhua JIANG[1], Guobin YANG[1], Zhao ZHENGYU[1]
[1]*Wuhan University*

ST30-D2-PM1-P-358 | ST30-A003

A Novel Ionospheric Sounding Network Based on Complete Complementary Code
Tongxin LIU[1#+], Guobin YANG[1], Chunhua JIANG[1], Zhao ZHENGYU[1]
[1]*Wuhan University*

ST30-D2-PM1-P-359 | ST30-A005

The Polar Ionospheric Large-scale Structures and Dynamics Revealed by the TEC Keogram Extracted from TEC Maps
Yong WANG[1+], Qing-He ZHANG[1#], Yu-Zhang MA[1], P. T. JAYACHANDRAN[2], Zanyang XING[1], Shunrong ZHANG[3]
[1]*Shandong University,* [2]*University of New Brunswick,* [3]*Massachusetts Institute of Technology*

ST30-D2-PM1-P-360 | ST30-A011

Interhemispheric Conjugate Effect in Longitude Variations of Mid-latitude Ion Density
Yiding CHEN[1#+], Libo LIU[1], Huijun LE[1], Hui ZHANG[1]
[1]*Chinese Academy of Sciences*

ST31-D2-PM1-P-361 | ST31-A004

Dynamical Network Quantification of the Spatio-temporal Pattern of Substorm Ground Magnetic Perturbations Using SuperMAG
Lauren ORR[1#], Sandra CHAPMAN[1+], Jesper GJERLOEV[2]
[1]*University of Warwick,* [2]*The Johns Hopkins University Applied Physics Laboratory*

ST31-D2-PM1-P-362 | ST31-A006

The Ion/Electron Temperature Characteristics of Polar Cap Classical and Hot Patches and Their Influence on Ion Upflow
Yu-Zhang MA[1+], Qing-He ZHANG[1#], Zanyang XING[1], Roderick HELLIS[2], Kjellmar OKSAVIK[3], Yong WANG[1]
[1]*Shandong University,* [2]*The University of Texas at Dallas,* [3]*University of Bergen*

ST31-D2-PM1-P-363 | ST31-A008

Transient Ionospheric Convection Response to Negative Dynamic Pressure Pulse

Jianjun LIU[1#+]

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ST31-D2-PM1-P-364 | ST31-A011

Direct Evidence for the Dissipation of Small-scale Ionospheric Plasma Structures by a Conductive E-region

Magnus IVARSEN[1#+], Yaqi JIN[1], Andres SPICHER[1], Lasse CLAUSEN[1]

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ST31-D2-PM1-P-365 | ST31-A012

Conjugate Observations of the Evolution of Polar Cap Arcs in Both Hemispheres

Zanyang XING[1#+], Qing-He ZHANG[1], Desheng HAN[2], Yongliang ZHANG[3], Natsuo SATO[4], Shunrong ZHANG[5], Zejun HU[6], Yong WANG[1], Yu-Zhang MA[1]

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ST31-D2-PM1-P-366 | ST31-A013

Statistical Study of the Relationship Between Ion Upflow and Field-aligned Current in the Topside Ionosphere for Both Hemispheres During Disturbed and Quiet Times

Shanyu ZHOU[1], Qing-He ZHANG[1#], Kjellmar OKSAVIK[2], Larry LYONS[3], Zanyang XING[1+], Yu-Zhang MA[1], Marc HAIRSTON[4], Yong WANG[1]

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ST31-D2-PM1-P-367 | ST31-A015

Polar Wind Outflow Modulated by Geomagnetic Dipole Tilt Through Magnetosphere-ionosphere Coupling

Kun LI[1#+]

[1]*Sun Yat-sen University*

ST32-D2-PM1-P-368 | ST32-A001

Acoustic Resonant Oscillations Following Large Earthquakes Observed by Cosmic Data

Xiangxiang YAN[1#+], Tao YU[1], Yang-Yi SUN[2], Yifan QI[1]

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ST32-D2-PM1-P-369 | ST32-A002

Analysis of Ionospheric Changes Caused by Thunderstorm Effects

Yu Cheng LIN[1#+], Alfred CHEN[1], Chia wen CHUANG[1]

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ST32-D2-PM1-P-370 | ST32-A003

Ionospheric and Thermospheric Disturbances Triggered Rocket Launches

Charles LIN[1#+], Min-Yang CHOU[1], Ming Hsueh SHEN[1], Jia YUE[2], Chia-Hung CHEN[1], Mitsuru MATSUMURA[3]

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ST32-D2-PM1-P-371 | ST32-A004

Comparison of Global Morphologies of Vertical Ion Convergence and Sporadic E Occurrence Rate

Lihui QIU[1+], Xiaomin ZUO[1#], Tao YU[1], Y. SUN[1], Yifan QI[1]

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ST32-D2-PM1-P-372 | ST32-A005

Spacial Correlation of the Day-to-day Variability from Ground-based GPS

Tao YU[1#], Shuo LIU[1+]

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ST33-D2-PM1-P-373 | ST33-A002

Comparisons of Co-incident Ionospheric Plasma Observations Between FORMOSAT-5 and Millstone Hill Incoherent Scatter Radar

Chi-Kuang CHAO[1#+], Yi-Wun CHEN[1], Jann-Yenq (Tiger) LIU[1]

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ST33-D2-PM1-P-374 | ST33-A005

Unusual Electromagnetic Observations by the Search Coil Magnetometer Onboard CSES Prior to M>7.0 Earthquakes

Qiao WANG[1#+], Rui YAN[1], Jianping HUANG[1], Xuhui SHEN[1]

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ST33-D2-PM1-P-375 | ST33-A007

Validation of Geospheres Interaction During Large-scale Natural Disasters Utilizing Space-borne Multi-parameter Observations. The LAIMC Concept

Dimitar OUZOUNOV[1#+], Sergey PULINETS[2], Michel PARROT[3], Xuhui SHEN[4], Xuemin ZHANG[4], Valerio TRAMUTOLI[5], Francesco MARCHESE[6], Nicola GENZANO[5], Jann-Yenq (Tiger) LIU[7], Katsumi HATTORI[8]

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ST33-D2-PM1-P-376 | ST33-A010

Temporal and Spatial Correlation Analyses Between Precursory Ionospheric Parameters and Earthquake Energy by Using Global Ionosphere Maps

Yung-Chih SU[1#+], Jann-Yenq LIU[2], Jinming SHA[1]

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ST33-D2-PM1-P-377 | ST33-A011

Seismo-ionospheric Precursors Associated with the 5 August 2018 M6.9 Loloan Earthquake Observed by China Seismo-electromagnetic Satellite

Jann-Yenq (Tiger) LIU[1#+], F.Y. CHANG[1], Dimitar OUZOUNOV[2], Katsumi HATTORI[3], Valerio TRAMUTOLI[4], Xuhui SHEN[5], Sergey PULINETS[6], Da-Peng LIU[5], Rui YAN[5]

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Day 03

31 Jul, Wed

Day 03 - 31 Jul 2019, Wednesday
Program Overview

Time / Room	AM1	AM2	PM1	PM2
	08:30 - 10:30	**11:00 - 12:30**	**13:30 - 15:30**	**16:00 - 18:00**
MR308	ST08 *p.M95*	ST08 *p.M102*	ST18 *p.M107*	ST18 *p.M113*
MR304	ST06 *p.M96*	ST06 *p.M103*	ST29 *p.M108*	ST11 *p.M114*
MR303	SE21 *p.M96*	SE20 *p.M103*	SE22 *p.M108*	SE22 *p.M114*
MR330	HS13 *p.M96*	HS08 *p.M103*	HS13 *p.M109*	HS13 *p.M115*
MR329	HS09 *p.M97*	HS09; HS11 *p.M104*	HS11 *p.M109*	HS23 *p.M115*
MR328	HS22 *p.M97*	HS22; HS27 *p.M104*	HS27 *p.M110*	HS24 *p.M116*
MR310	PS12 *p.M98*	PS12 *p.M105*	PS16 *p.M110*	PS16 *p.M116*
MR311	SE13 *p.M99*		AS07 *p.M111*	AS07 *p.M117*
MR327	SE09 *p.M99*	SE23 *p.M105*	SE09 *p.M111*	IG19 *p.M117*
MR302	OS14; OS17 *p.M100*	OS17 *p.M106*	OS02 *p.M111*	OS02 *p.M118*
MR301	OS08 *p.M100*	OS08 *p.M106*	OS09; OS19 *p.M112*	OS07 *p.M118*
MR300	BG06; BG10 *p.M101*	KL-BG *p.F13* DL-BG *p.F12*	WS03 *p.F23*	
MR309	ST27 *p.M102*	ST16 *p.M106*	ST26-PS17 *p.M113*	ST26-PS17 *p.M119*
MR323	IG12 *p.M102*	IG24 *p.M107*	Belmont Forum	SE24 *p.M120*
Nicoll 1	AS03 *p.M101*	SS05 *p.M106*	SS03 *p.M112*	AS11 *p.M119*
Nicoll 2	AS19 *p.M95*	KL-AS *p.F12* DL-AS *p.F11*	Meet-the-Experts	
EXHIBITION HALL			AS2 Posters *p.M122* BG Posters *p.M121*	

Sessions & Conveners

* Main Convener

AS03-Monsoon Climates Over South, East and Southeast Asia in a Warming Environment
*Ramesh KRIPALANI *Indian Institute of Tropical Meteorology,* Kyung-Ja HA *Pusan National University,* Jaiho OH *Pukyong National University,* Venkatraman PRASANNA *Meteorological Service Singapore,* Renguang WU *Zhejiang University*

AS07-Origin, Evolution, and Distribution of Atmospheric Pollutions and Their Impact on Ecosystem in Eastern China
*Xuexi TIE *National Center for Atmospheric Research,* Guohui LI *Chinese Academy of Sciences,* Jianming XU *Yangtze River Delta Center for Environmental Meteorology Prediction and Warning*

AS11-Exploration and Science of the Earth's Lower and Middle Atmosphere: Past, Present and Future Perspectives
*Som Kumar SHARMA *Physical Research Laboratory,* Anoop MISHRA *Sathyabama University, Chennai,* Sumit Kumar MISHRA *CSIR-National Physical Laboratory,* D. V. PHANIKUMAR *Aryabhatta Research Institute of Observational Sciences,* Shikha RAIZADA *Arecibo Observatory*

AS19-Anthropogenic and Natural Aerosol: Modeling, Measurement, and Source Apportionment
*Cheol-Hee KIM *Pusan National University,* Mizuo KAJINO *Japan Meteorological Agency,* Fan MENG *Chinese Research Academy of Environmental Sciences,* Wei TANG *Chinese Research Academy of Environmental Sciences,* Chung-Shin YUAN *National Sun Yat-sen University*

BG06-The Role of Trace Metals in Shaping Biological Communities in Modern Oceans
*Anwesha GHOSH *Indian Institute of Science Education and Research Kolkata,* Punyasloke BHADURY *Indian Institute of Science Education and Research Kolkata,* Prasun GOSWAMI *National Institute of Ocean Technology*

BG10-Coastal Blue Carbon: Recent Assessments, New Methods, Data Syntheses and Advance in Carbon Finance
*Raghab RAY *The University of Tokyo,* Punyasloke BHADURY *Indian Institute of Science Education and Research Kolkata,* Rupesh Kumar BHOMIA *Center For International Forestry Research, Bogor,* Sahadev SHARMA *Institute of Ocean and Earth Sciences, University of Malaya, Kuala Lumpur*

HS08-Urban Development and Climate Change
*Jeanne Jinhui HUANG *Nankai University,* James LI *Ryerson University*

HS09-Hydrometric Monitoring and Data Analysis
*Ke-Sheng CHENG *National Taiwan University,* Chen-Ho CHIEN *National Taiwan University,* Jihn-Sung LAI *National Taiwan University*

HS11-Hydroinformatics
*Dawei HAN *University of Bristol,* Jeanne Jinhui HUANG *Nankai University,* Gwo-Fong LIN *National Taiwan University*

HS13-Urban Water-Related Problems
*Kenichiro KOBAYASHI *Kobe University,* Ronny BERNDTSSON *Lund University,* Akira KAWAMURA *Tokyo Metropolitan University,* So KAZAMA *Tohoku University,* Kei NAKAGAWA *Nagasaki University*

HS22-Satellite Remote Sensing Data Products for Water Cycle Studies and Societal Applications
*Xiwu ZHAN *National Oceanic and Atmospheric Administration,* Rong LIU *Chinese Academy of Sciences,* Marouane TEMIMI *Khalifa University of Science and Technology,* Jun WEN *Chengdu University of Information Technology,* Huan WU *Sun Yat-sen University*

HS23-Approaches for Post-processing Meteorological and Hydrological Forecasts for Improved Predictions of High-impact Weather Conditions
*Sanjeev Kumar JHA *Indian Institute of Science Education and Research Bhopal,* Safat SIKDER *University of Washington,* Fuqiang TIAN *Tsinghua University*

HS24-Modeling of Hydrologic Processes at Catchment Scales in the Context of Climate Change
*Van-Thanh-Van NGUYEN *McGill University,* Shie-Yui LIONG *National University of Singapore,* Laxmi SUSHAMA *McGill University*

HS27-Evapotranspiration Estimation from Plot to Global Scale Using Instruments, Models and Remote Sensing
*Xuan YU *Sun Yat-sen University,* Hongkai GAO *East China Normal University,* Hailong WANG *Sun Yat-sen University,* Jianhui WEI *Karlsruhe Institute of Technology,* Ke ZHANG *Hohai University*

IG12-Global and Societal Impacts of Geohazards
*Yasukuni OKUBO *Japan Space Systems,* Antonio CORREIA *University of Evora,* Kazuhisa GOTO *The University of Tokyo,* Yujiro OGAWA *N.A,* Anawat SUPPASRI *Tohoku University*

IG19-Volcanic Gas Surveillance: Applications to Monitoring and Hazard Mitigation
*Philipson BANI *The French Research Institute for Development,* Nia HAERANI *Center for Volcanology and Geological Hazard Mitigation,* Kristianto KRISTIANTO *Center for Volcanology and Geological Hazard Mitigation,* Estu KRISWATI *Center for Volcanology and Geological Hazard Mitigation,* Devy Kamil SYAHBANA *Center for Volcanology and Geological Hazard Mitigation*

IG24-Geo-science Education, Geo-heritage and Geo-conservation
*Mega Fatimah ROSANA *Padjadjaran University,* Than HTUN *Myanmar Precious Resources Group,* Soojae LEE *JeJu UNESCO Global Geopark,* I-Te LEE *Central Weather Bureau,* Hoe Teck TAN *School of Science and Technology*

OS02-Tropical Climate Variability, Modelling, Prediction, and Application
*Jing-Jia LUO *Nanjing University of Information Science & Technology,* Swadhin BEHERA *Japan Agency for Marine-Earth Science and Technology,* Dietmar DOMMENGET *Monash University,* June-Yi LEE *Pusan National University*

OS07-Tropical Cyclone-Ocean Interactions
*Chunzai WANG *South China Sea Institute of Oceanology,* Dake CHEN *State Oceanic Administration,* I-I LIN *National Taiwan University,* Guihua WANG *Fudan University*

OS08-Future Coastal Oceans Under Increasing Climate Change and Anthropogenic Stresses
*Daidu FAN *Tongji University,* Guan-hong LEE *Inha University,* Jingping XU *Southern University of Science and Technology,* Zai-Jin YOU *Ludong University*

OS09-Atmospheric and Oceanic Forcing on Biogeochemistry in the North Pacific Subtropical Gyre
*Wee CHEAH *University of Malaya,* Chun Hoe CHOW *National Taiwan Ocean University,* Jen-Hua TAI *Academia Sinica*

OS14-Marine Debris – from Modelling to Management to Microplastics
*Serena LEE *Griffith University*, Venkatachalapathy RAMADOSS *Annamalai University*

OS17-Advances in Oceanic Data Assimilation Methodologies, Forecasting and Reanalysis
*Shiqiu PENG *Chinese Academy of Sciences*, Zhijin LI *Jet Propulsion Laboratory, California Institute of Technology*, Yasumasa MIYAZAWA *Japan Agency for Marine-Earth Science and Technology*, Shaoqing ZHANG *GFDL/NOAA*, Jiang ZHU *Chinese Academy of Sciences*

OS19-Artificial Intelligence (AI) Oceanography
*Changming DONG *Nanjing University of Information Science & Technology*, Cheng CHENG *Univer*, Qinshan LIU *Nanjing University of Information Science and Technology*, Bin ZOU *National Satellite Ocean Application Service*

PS12-Juno at Jupiter and the Earth-based Observation Campaign
*Alessandro MURA *National Institute for Astrophysics*, Frederic ALLEGRINI *Southwest Research Institute*, Scott BOLTON *Southwest Research Institute*, Glenn ORTON *Jet Propulsion Laboratory, California Institute of Technology*, Marzia PARISI *NASA Jet Propulsion Laboratory*

PS16-Microwave and Infrared Remote Sensing of Solar System Objects
*Paul HARTOGH *Max Planck Institute for Solar System Research*, Scott BOLTON *Southwest Research Institute*, Yasuko KASAI *National Institute of Information and Communications Technology*, Yi-Jehng KUAN *National Taiwan Normal University*

ST06-Magnetohydrodynamic Waves in Solar Magnetic Structures: Seismology and Heating
*Bo LI *Shandong University*, Dipankar BANERJEE *Indian Institute of Astrophysics*, Marcel GOOSSENS *KU Leuven*, Rekha JAIN *The University of Sheffield*, Takaaki YOKOYAMA *The University of Tokyo*

ST08-Magnetic Flux Ropes Throughout the Solar System: Theory, Simulations and Observations
*Gangkai POH *NASA Goddard Space Flight Center*, San LU *University of California, Los Angeles*, James SLAVIN *University of Michigan*, Andrew SMITH *University of Southampton*, Wei-Jie SUN *University of Michigan*

ST11-Radiation Belt Physics in the Sun-earth Connection Context
*Binbin NI *Wuhan University*, Xudong GU *Wuhan University*, Allison JAYNES *The University of Iowa*, Yuto KATOH *Tohoku University*, Hong ZHAO *University of Colorado Boulder*

ST16-Peculiar nonlinear phenomena in the modern solar-terrestrial physics
*Alexei DMITRIEV *National Central University*, Bo LI *Shandong University*

ST18-Multi-scale Diagnosis of Magnetic Reconnection
*Meng ZHOU *Nanchang University*, Keizo FUJIMOTO *Beihang University*, Kyoung-Joo HWANG *Southwest Research Institute*, Yuri KHOTYAINTSEV *Swedish Institute of Space Physics*, Rongsheng WANG *University of Science and Technology of China*

ST26-PS17-Future and Current Space Missions and Instrumentation for Space and Planetary Science
*Takeshi SAKANOI *Tohoku University*, Anil BHARDWAJ *Physical Research Laboratory*, Yoshifumi SAITO *Japan Aerospace Exploration Agency*, Jongho SEON *Kyung Hee University*, Andrew YAU *University of Calgary*

ST27-General Session in Solar and Terrestrial Sciences
*Mario BISI *United Kingdom Research and Innovation - Science & Technology Facilities Council*, Gang LI *The University of Alabama in Huntsville*, Quanqi SHI *Shandong University*, Linghua WANG *Peking University*, Shasha ZOU *University of Michigan*

ST29-Seven Years of Van Allen Probes and Two Years of Arase: New and Recent Results on Radiation Belt and Inner Magnetosphere Physics
*Craig KLETZING *The University of Iowa*, Ondrej SANTOLIK *Czech Academy of Sciences*

SE09-Active Volcanic Processes from the Mantle to the Atmosphere: Multidisciplinary Approaches to Monitoring, Hazards, and Impacts
*Florian M. SCHWANDNER *Jet Propulsion Laboratory, California Institute of Technology*, Helena ALBERT *Nanyang Technological University*

SE13-Landslide Identification, Prediction, and Monitoring Using Multi-Disciplinary Emerging Technologies and Early Warning Systems in a Multi-Hazard Framework
*Chih-Chung CHUNG *National Central University*, Jia-Jyun DONG *National Central University*, Mauro ROSSI *National Research Council (CNR)*, Ying-Hsin WU *Kyoto University*, Che-Ming YANG *National Chiao Tung University*

SE20-Crustal Mechanics Integrations: Observations, Models and Implications
*Liqing JIAO *Nanyang Technological University*, Chung-Han CHAN *Nanyang Technological University*, Hung-Yu WU *Japan Agency for Marine-Earth Science and Technology*

SE21-Understanding the Geodynamics of Subduction Zones
*Rebecca FARRINGTON *The University of Melbourne*, Dan SANDIFORD *The University of Melbourne*, Ting YANG *Southern University of Science and Technology*

SE22-Emerging Trends in Ore Deposit Studies in the Asia Oceania Region
*Jillian Aira GABO-RATIO *University of the Philippines Diliman*, Chun-Kit LAI *Universiti Brunei Darussalam*, Betchaida PAYOT *University of the Philippines Diliman*, Mega Fatimah ROSANA *Padjadjaran University*, Kotaro YONEZU *Kyushu University*

SE23-Oceanic Lithosphere: from Ridge to Arc
*Betchaida PAYOT *University of the Philippines Diliman*, Norikatsu AKIZAWA *The University of Tokyo*, Biswajit GHOSH *Calcutta University*

SE24-Geotechnical and Geophysical Site Characterization
*Sung-Woo MOON *Nazarbayev University*, Taeseo KU *National University of Singapore*

SS03-Mineral Desert Dust
*Sang-Woo KIM *Seoul National University*, Jack KAYE *NASA Earth Science Division*, Barry LEFER *NASA*

SS05-Space Agency Remote Sensing of the Earth
*Wenjian ZHANG *World Meteorological Association*, Richard ECKMAN *National Aeronautics and Space Administration*

ST08 / Magnetic Flux Ropes Throughout the Solar System: Theory, Simulations and Observations

Wed - 31 Jul | MR308

Time 08:30-10:30
Chair(s) Gangkai POH, *NASA Goddard Space Flight Center*

ST08-D3-AM1-308-001 | ST08-A021 (Invited)

On the Twist of Magnetic Flux Ropes (MFRs) in the Corona and Solar Wind
Yuming WANG[1#+], Rui LIU[1], Chenglong SHEN[1], Jiajia LIU[2], Ake ZHAO[1]
[1]University of Science and Technology of China, [2]The University of Sheffield

ST08-D3-AM1-308-002 | ST08-A006 (Invited)

A Comparison of Magnetic Flux Rope Observations at Mercury, Venus, and Mars
Gina DI BRACCIO[1#+]
[1]NASA Goddard Space Flight Center

ST08-D3-AM1-308-003 | ST08-A005

A New Mechanism for the Field Line Twisting in the Ionospheric Magnetic Flux Rope
Lianghai XIE[1#+], L. C. LEE[2]
[1]Macau University of Science and Technology, [2]Academia Sinica

ST08-D3-AM1-308-004 | ST08-A004 (Invited)

Large-scale Solar Eruptions and Small-scale Magnetic Reconnection
Mingde DING[1#+], Xin CHENG[1]
[1]Nanjing University

ST08-D3-AM1-308-005 | ST08-A020

Solar Eruption Generated by Interaction of Magnetic Flux Ropes
Sibaek YI[1+], Gwang-Son CHOE[1#], Hongdal JUN[1]
[1]Kyung Hee University

ST08-D3-AM1-308-006 | ST08-A012

Reconstruction of Plasma Structure with Pressure Anisotropy in the Magnetosphere
Anmin TIAN[1#+], Kai XIAO[1], Alexander DEGELING[1], Quanqi SHI[1]
[1]Shandong University

ST08-D3-AM1-308-007 | ST08-A007

Comparison of Cylindrical Interplanetary Flux Rope Model Fittings with Different Boundary Pitch Angle Treatments
Nobuhiko NISHIMURA[1#+], Katsuhide MARUBASHI[2], Munetoshi TOKUMARU[3]
[1]Institute for Space Earth Environmental Research, [2]National Institute of Information and Communications Technology, [3]Nagoya University

AS19 / Anthropogenic and Natural Aerosol: Modeling, Measurement, and Source Apportionment

Wed - 31 Jul | Nicoll 2

Time 08:30-10:30
Chair(s) Cheol-Hee KIM, *Pusan National University*

AS19-D3-AM1-Nicoll 2-001 | AS19-A009 (Invited)

Transpacific Transport of Asian Dust and Pollution by Mid-latitude Cyclones as Revealed by NASA Fine-resolution Satellites and Model
Hongbin YU[1#+], Qian TAN[2], Huisheng BIAN[1], Tianle YUAN[1,3], Mian CHIN[1], John YORKS[1]
[1]NASA Goddard Space Flight Center, [2]Bay Area Ennvironmental Research Institute, [3]University of Maryland, Baltimore County

AS19-D3-AM1-Nicoll 2-002 | AS19-A010

Vertical Structure of Heating Rate Due to Mineral Dust and Carbonaceous Aerosols over the Indian Region
Lakshmi N.B.[1,2#+], Vijayakumar S. NAIR[1], S. Suresh BABU[1]
[1]Vikram Sarabhai Space Centre, [2]Cochin University of Science and Technology

AS19-D3-AM1-Nicoll 2-003 | AS19-A001

Study on the Radiation Characteristics and Transport of Dust and Anthropogenic Aerosols over the Tibetan Plateau in Summer
Yuzhi LIU[1#+]
[1]Lanzhou University

AS19-D3-AM1-Nicoll 2-004 | AS19-A003

Preliminary Environmental Magnetic Results from Atmospheric Aerosol Particles Caught on Quartz-filters in the Noto Peninsula, Ishikawa, Japan
Kazuo KAWASAKI[1#+], Atsushi MATSUKI[2], Nozomu TSUCHIYA[2]
[1]University of Toyama, [2]Kanazawa University

AS19-D3-AM1-Nicoll 2-005 | AS19-A014

Impacts of Climate Change and Land Use Change on Dust Emission in East Asia
Chenglai WU[1#+], Zhaohui LIN[1], Xiaohong LIU[1,2]
[1]Chinese Academy of Sciences, [2]University of Wyoming

AS19-D3-AM1-Nicoll 2-006 | AS19-A016

Investigation of the Volcanic Aerosols: The Contribution to the Stratospheric Aerosols and the Transport Pathways
Xue WU[1,2#+], Sabine GRIESSBACH[2], Lars HOFFMANN[3]
[1]Institute of Atmospheric Physics, Chinese Academy of Sciences, [2]Forschungszentrum Jülich GmbH, [3]Forschungszentrum Juelich GmbH

AS19-D3-AM1-Nicoll 2-007 | AS19-A020

Trend Assessment of PM2.5 Inorganic Species in Background and Urban Area in South Korea During Higher Episodes: Observation and Simulations
Yu-Jin JO[1+], Cheol-Hee KIM[1#], Hyo-Jung LEE[1], Hyun-Young JO[1], Geum-Hee YANG[1], Jongmin KIM[1]
[1]Pusan National University

ST06 / Magnetohydrodynamic Waves in Solar Magnetic Structures: Seismology and Heating

Wed - 31 Jul | MR304

Time 08:30-10:30

Chair(s) Takaaki YOKOYAMA, *The University of Tokyo*
Bo LI, *Shandong University*

ST06-D3-AM1-304-001 | ST06-A002

Mixed Properties of MHD Waves in Non-uniform Plasmas
Marcel GOOSSENS[1#+], Inigo ARREGUI[2], Tom VAN DOORSSELAERE[1]
[1]KU Leuven, [2]Instituto de Astrofisica de Canarias

ST06-D3-AM1-304-002 | ST06-A007 (Invited)

Are Coronal-loop Oscillations Confined to the Visible Loop?
Bradley HINDMAN[1#+]
[1]University of Colorado Boulder

ST06-D3-AM1-304-003 | ST06-A003 (Invited)

The Effect of Thermal Misbalance on Compressive Oscillations in Solar Coronal Loops
Valery NAKARIAKOV[1#+]
[1]University of Warwick

ST06-D3-AM1-304-004 | ST06-A006 (Invited)

Investigating Hidden Energy in the Solar Corona Using Forward Modeling of Magnetohydrodynamic Waves
Vaibhav PANT[1#+], Norbert MAGYAR[1], Tom VAN DOORSSELAERE[1], Richard MORTON[2]
[1]KU Leuven, [2]Northumbria University

ST06-D3-AM1-304-005 | ST06-A011

Nature of Oscillations in Solar Coronal Arcades
Rekha JAIN[1#+]
[1]The University of Sheffield

ST06-D3-AM1-304-006 | ST06-A010

Fast Magnetohydrodynamic Modes of a Semi-cylindrical Waveguide
Hope THACKRAY[1#+], Rekha JAIN[1]
[1]The University of Sheffield

ST06-D3-AM1-304-007 | ST06-A008

Coronal Loop Seismology Using Kink Oscillations in Loops with Wide Inhomogeneous Layers
David PASCOE[1#+]
[1]KU Leuven

ST06-D3-AM1-304-008 | ST06-A012

Numerical Simulations of Coronal Loop Transverse Oscillations Excited by Random Driver
Andrei AFANASEV[1#+], Tom VAN DOORSSELAERE[1]
[1]KU Leuven

SE21 / Understanding the Geodynamics of Subduction Zones

Wed - 31 Jul | MR303

Time 08:30-10:30

Chair(s) Rebecca FARRINGTON, *The University of Melbourne*
Ting YANG, *Southern University of Science and Technology*

SE21-D3-AM1-303-001 | SE21-A006

Strain Accumulation and Release During the Mega-thrust Earthquake Cycle: Insight from Upper Plate Behavior
Kevin P. FURLONG[1#+], Kirsty MCKENZIE[1], Matthew HERMAN[2]
[1]Penn State University, [2]Utrecht University

SE21-D3-AM1-303-002 | SE21-A007

Dynamics of Arc-continent Collision: Implications for Basin Formation in the Overriding Plate
Andres RODRIGUEZ[1#+], Sara MORON[1], Romain BEUCHER[1], Camilo MONTES[2], Rebecca FARRINGTON[1], Louis MORESI[1]
[1]The University of Melbourne, [2]Universidad del Norte, Colombia

SE21-D3-AM1-303-003 | SE21-A004

Lubrication Dynamics for Exhumation of High Pressure and Ultra High Pressure Rocks in Subduction Zones
Giridas MAITI[1#+], Nibir MANDAL[1]
[1]Jadavpur University

SE21-D3-AM1-303-004 | SE21-A002

Creep of Majorite-ringwoodite Model and its Role in Stress Development for Deep Earthquakes at Around 600 Km Depth
Junshan XU[1#+]
[1]China Earthquake Administration

SE21-D3-AM1-303-005 | SE21-A005 (Invited)

Genesis of Intermediate-depth and Deep Intraslab Earthquakes Beneath Japan Constrained by Seismic Tomography, Seismicity, and Thermal Modeling
Min CHEN[1#+], Vlad CONSTANTIN MANEA[2], Fenglin NIU[3,4], Songqiao WEI[1], Eric KISER[5]
[1]Michigan State University, [2]Universidad Nacional Autónoma de México, [3]Rice University, [4]China University of Petroleum-Beijing, [5]University of Arizona

HS13 / Urban Water-Related Problems

Wed - 31 Jul | MR330

Time 08:30-10:30

Chair(s) Kenichiro KOBAYASHI, *Kobe University*
So KAZAMA, *Tohoku University*

HS13-D3-AM1-330-001 | HS13-A024

Spatio-temporal Evaluation of Windfield Dynamics over a Reservoir in Downtown Singapore
Mohammad ASHRAFI[1#+], Lloyd CHUA[2], Kim IRVINE[3]
[1]Nanyang Technological University, [2]Deakin University, [3]National Institute of Education

HS13-D3-AM1-330-002 | HS13-A005

Paddy Field Dam Effect Estimation for Flood Mitigation Focusing on Nishiharima Hyogo Japan
Kenichiro KOBAYASHI[1#+], Takanori KONO[1], Takao KIMURA[2]
[1]Kobe University, [2]local farmer

HS13-D3-AM1-330-003 | HS13-A014

Estimation of the Flood Damage Caused by Climate Change and Effect of the Adaptation
Tao YAMAMOTO[1#+], So KAZAMA[1], Yoshiya TOUGE[1]
[1]Tohoku University

HS13-D3-AM1-330-004 | HS13-A009 (Invited)

Application of Convolutional Neural Network to Rainfall Forecasting and Sensitivity Analysis on Input Factors and Regional Characteristics
Tsuguaki SUZUKI[1#+], Sunmin KIM[1], Yasuto TACHIKAWA[1]
[1]Kyoto University

HS13-D3-AM1-330-005 | HS13-A031 (Invited)

Numerical Analysis on Water Behaviour of Inundaiton Due to River Flood and Heavy Rain in Urban Area
Makoto TAKEDA[1#+], Masataka MURASE[1], Naoki MATSUO[1]
[1]Chubu University

HS13-D3-AM1-330-006 | HS13-A006 (Invited)

High-resolution Simulation of Full-scale Fluvial and Pluvial Flooding Using a High-performance Hydrodynamic Model
Qiuhua LIANG[1#+], Xilin XIA[1], Qian LI[1]
[1]Loughborough University

HS13-D3-AM1-330-007 | HS13-A018 (Invited)

High-resolution Numerical Weather Simulation with a Large Domain for Water-related Disaster Prevention and Mitigation
Tsutao OIZUMI[1#+], Kazuo SAITO[2], Junshi ITO[3], Le DUC[1]
[1]Japan Agency for Marine-Earth Science and Technology, [2]The University of Tokyo, [3]Japan Meteorological Agency

HS13-D3-AM1-330-008 | HS13-A019

Development of Operational Urban Flood Guidance System for Bangkok Area
Apimook MOOKTAREE[1#+], Ticha LOLUPIMAN[2], Theerapol CHAROENSUK[2], Watin THANATHANPHON[2], Narongrit LUANGDILOK[2], Piyamarn SISOMPHON[2]
[1]Hydro-Informatics Institute, [2]Hydro and Agro Informatics Institute

HS09 / Hydrometric Monitoring and Data Analysis

Wed - 31 Jul | MR329

Time 08:30-10:30
Chair(s) Ke-Sheng CHENG, *National Taiwan University*

HS09-D3-AM1-329-001 | HS09-A022

The Hydro-geomorphic Baseline of Four Forested Catchments in Singapore
Canh Tien Trinh NGUYEN[1#+], Jiandong LIU[1], Dongeon KIM[1,2], Mengjie LIEW[1], Yixiong CAI[3], Shie-Yui LIONG[1]
[1]National University of Singapore, [2]University of Nice Sophia Antipolis, [3]National Parks Board

HS09-D3-AM1-329-002 | HS09-A013

Effect of In-stream Variable on the Lower Mahanadi River, India
Amit SIDDHARTH[1#+], Chandan PRADHAN[1], Modalavalasa SURESH[1], Subashisa DUTTA[1]
[1]Indian Institute of Technology Guwahati

HS09-D3-AM1-329-003 | HS09-A001

Flow Field Measurement and Movement Estimation of Turbidity Current in a Reservoir
Fong-Zuo LEE[1#+], Jihn-Sung LAI[1], Wen-Yi CHANG[2], Shu-Yuan YANG[1], Cheng-Chi LIU[1], Hsing-Jui WANG[1], Jen-Yu HAN[1], Chih-Hsien YANG[1]
[1]National Taiwan University, [2]National Center for High-Performance Computing

HS09-D3-AM1-329-004 | HS09-A002

UAV Application on the Flow Field Measurement Between the Upstream and Downstream of Bitan Weir
Jihn-Sung LAI[1], Fong-Zuo LEE[1], Shu-Yuan YANG[1#+], Wen-Yi CHANG[2], Cheng-Chi LIU[1], Hsing-Jui WANG[1], Jen-Yu HAN[1], Chih-Hsien YANG[1]
[1]National Taiwan University, [2]National Center for High-Performance Computing

HS09-D3-AM1-329-005 | HS09-A005

Hydrological Investigation and Water Budget Model Development of a Mountain Wetland in Northern Taiwan
Yao-Wen HSU[1+], Shang-Shu SHIH[1#]
[1]National Taiwan University

HS09-D3-AM1-329-006 | HS09-A007

Flow Regime Analysis Using Wavelet Methods Considering Weir Effects
Chi-Hsin LIU[1+], Shang-Shu SHIH[1#]
[1]National Taiwan University

HS09-D3-AM1-329-007 | HS09-A011

The Effects of Water Gate Operations on Wu-Wei-Kang Wetland by Intensive Field Measurements and Hydrodynamic Model Simulations
Gwowen HWANG[1#], Fong-Zuo LEE[1+], Shang-Shu SHIH[1], Szu-Yu KO[1], Ming-Hsiu CHAN[1]
[1]National Taiwan University

HS09-D3-AM1-329-008 | HS09-A009

Certified Accuracy and Requirements for Rainfall Measurements and Instruments in Scientific Investigations
Chen-Ho CHIEN[1#+], Li-Hui HSIEH[1]
[1]National Taiwan University

HS22 / Satellite Remote Sensing Data Products for Water Cycle Studies and Societal Applications

Wed - 31 Jul | MR328

Time 08:30-10:30
Chair(s) Xiwu ZHAN, *National Oceanic and Atmospheric Administration*
Nergui NANDING, *Sun Yat-sen University*
Youssef WEHBE, *Khalifa University of Science and Technology*

HS22-D3-AM1-328-001 | HS22-A002

Bias Correction of Satellite Precipitation: TRMM and GPM of Singapore for Hydrological Model
Huong TRINH DIEU[1#+], Serene TAY[2], Seng Keat OOI[1]
[1]National University of Singapore, [2]Senior Consultant

HS22-D3-AM1-328-002 | HS22-A006

IMERG V06: 20 Years of High Resolution Global Precipitation Data

Jackson TAN[1#+], George HUFFMAN[2], David BOLVIN[3], Eric NELKIN[3]

[1]Universities Space Research Association, [2]NASA Goddard Space Flight Center, [3]Science Systems and Applications, Inc.

HS22-D3-AM1-328-003 | HS22-A009 (Invited)

Integrating SMAP Soil Moisture and Rainfall Data with an Analytic Model for Drought Monitoring at the Continental Scale

Lifeng LUO[1#+], Feng MA[2], Aizhong YE[2], Yang LANG[3]

[1]Michigan State University, [2]Beijing Normal University, [3]Yunnan University

HS22-D3-AM1-328-004 | HS22-A001

A Lagrangian Analysis of Moisture Transport Pathways During Drought and Wet Year over the Source Region of the Yellow River, China

Rong LIU[1#+], Jun WEN[2], Xin WANG[1], Li ZHU[1]

[1]Chinese Academy of Sciences, [2]Chengdu University of Information Technology

HS22-D3-AM1-328-005 | HS22-A012

Integration of Satellite Soil Moisture and Evapotranspiration Observations for Regional and Global Drought Monitoring

Xiwu ZHAN[1#+], Jicheng LIU[2], Li FANG[2], Jifu YIN[3], Mitch SCHULL[3], Limin ZHAO[4], Satya KALLURI[2]

[1]National Oceanic and Atmospheric Administration, [2]NOAA-NESDIS Center for Satellite Applications and Research, [3]University of Maryland, [4]NOAA-NESDIS Office of Satellite and Product Operations

HS22-D3-AM1-328-006 | HS22-A011

Development of Snow Cover Detection Algorithm Using Himawari-8 AHI Data

Hyeon Su KIM[1#+], Jae Gwan KIM[1], Chu Yong CHUNG[1]

[1]National Meteorological Satellite Center

HS22-D3-AM1-328-007 | HS22-A010

Monitoring the Progress of Urbanization and its Impact on Runoff Generation in Beijing

Yibing WANG[1+], Xianhong XIE[1#]

[1]Beijing Normal University

HS22-D3-AM1-328-008 | HS22-A003

Using Grace Gravimetry to Detect Groundwater Storage in an Island Watershed

Chung-Chieh HUANG[1#+], Jyun-Lin CHEN[1], Hong Ru LIN[1], Shao-Yang HUANG[1], Jet-Chau WEN[1], Pat YEH[2], Ben JARIHANI[3]

[1]National Yunlin University of Science and Technology, [2] Monash University, [3]University of the Sunshine Coast

PS12 / Juno at Jupiter and the Earth-based Observation Campaign

Wed - 31 Jul | MR310

Time 08:30-10:30

Chair(s) Glenn ORTON, *Jet Propulsion Laboratory, California Institute of Technology*

PS12-D3-AM1-310-001 | PS12-A011

Juno's Surprising Results and the Impact to Future Exploration

Scott BOLTON[1#+], Steven LEVIN[2], Jack CONNERNEY[3]

[1]Southwest Research Institute, [2]Jet Propulsion Laboratory, California Institute of Technology, [3]Space Research Corporation

PS12-D3-AM1-310-002 | PS12-A001 (Invited)

Jupiter's Magnetic Field and Magnetosphere at the Midpoint of Juno's Mapping Mission

J. E. P. CONNERNEY[1,2#+], Stavros KOTSIAROS[2], Daniel GERSHMAN[2], John JORGENSEN[3], Peter JORGENSEN[3], Jose M.G. MERAYO[3], Jeremy BLOXHAM[4], Kimberly MOORE[4], Scott BOLTON[5], Steven LEVIN[6]

[1]Space Research Corporation, [2]NASA Goddard Space Flight Center, [3]Technical University of Denmark, [4]Harvard University, [5]Southwest Research Institute, [6]Jet Propulsion Laboratory, California Institute of Technology

PS12-D3-AM1-310-003 | PS12-A008 (Invited)

Auroral Field Aligned Currents in Jupiter's Magnetosphere

Stavros KOTSIAROS[1#+], J. E. P. CONNERNEY[1,2], George CLARK[3], Frederic ALLEGRINI[4,5], Randy GLADSTONE[4], William KURTH[6], Barry MAUK[3], Thomas GREATHOUSE[4], Joachim SAUR[7], Emma BUNCE[8], Yasmina M MARTOS[1], Scott BOLTON[4], Steven LEVIN[9]

[1]NASA Goddard Space Flight Center, [2]Space Research Corporation, [3]The Johns Hopkins University Applied Physics Laboratory, [4]Southwest Research Institute, [5]University of Texas at San Antonio, [6]The University of Iowa, [7]University of Koeln, [8]University of Leicester, [9]Jet Propulsion Laboratory, California Institute of Technology

PS12-D3-AM1-310-004 | PS12-A003

Observing Low-frequency Electromagnetic Waves Related to Jovian Lightning with the Juno Waves Instrument

Masafumi IMAI[1#+], Ivana KOLMASOVA[2,3], Ondrej SANTOLIK[2,3], William KURTH[1], George HOSPODARSKY[1], Donald GURNETT[1], Scott BOLTON[4], John CONNERNEY[5]

[1]The University of Iowa, [2]Czech Academy of Sciences, [3]Charles University, [4]Southwest Research Institute, [5]NASA Goddard Space Flight Center

PS12-D3-AM1-310-005 | PS12-A002

Longitudinal and Time Variations of 3-micron CH4 and C2H6 Emissions in the North-polar Region of Jupiter

Sang Joon KIM[1#+], Chae Kyung SIM[1], Tom GEBALLE[2], Yuk YUNG[3], Steve MILLER[4], Thomas GREATHOUSE[5], Sungho LEE[6]

[1]Kyung Hee University, [2]Gemini Observatory, [3]California Institute of Technology, [4]University College London, [5]Southwest Research Institute, [6]Korea Astronomy and Space Institute

PS12-D3-AM1-310-006 | PS12-A007

Results from JIRAM: The Jovian Infrared Auroral Mapper

Alessandro MURA[1#+], Alberto ADRIANI[1]

[1]National Institute for Astrophysics

PS12-D3-AM1-310-007 | PS12-A006 (Invited)

The Newest Results from the Juno MWR Instrument
Virgil ADUMITROAIE[1#], Steven LEVIN[1], Michael JANSSEN[1], J. E. P. CONNERNEY[2,3], Michael ALLISON[3], John ARBALLO[1], Sushil ATREYA[4], Heidi BECKER[1], Shannon BROWN[1], Samuel GULKIS[1], Amoree HODGES[5], Andrew INGERSOLL[6], Cheng LI[1], Jonathan LUNINE[7], Sidharth MISRA[1], Fabiano OYAFUSO[1], Daniel SANTOS-COSTA[8], Edwin SARKISSIAN[1], Paul STEFFES[5], J. Hunter WAITE, JR.[8], Zhimeng ZHANG[1], Scott BOLTON[8+]
[1]Jet Propulsion Laboratory, California Institute of Technology, [2]Space Research Corporation, [3]NASA Goddard Space Flight Center, [4]University of Michigan, [5]Georgia Institute of Technology, [6]Geological and Planetary Sciences, California Institute of Technology, [7]Cornell University, [8]Southwest Research Institute

PS12-D3-AM1-310-008 | PS12-A014

The Determination of the He/H2 Ratio in the Atmospheres of Saturn and Jupiter and Implications for Giant Planet Formation and Evolution
J. Hunter WAITE, JR.[1#+], Jared BELL[2], Kelly MILLER[1], David STEVENSON[3], Sandrine GUERLET[4], Tommi KOSKINEN[5], Chris GLEIN[1], Rebecca PERRYMAN[1], Scott BOLTON[1], Roger YELLE[5]
[1]Southwest Research Institute, [2]NASA Goddard Space Flight Center, [3]Geological and Planetary Sciences, California Institute of Technology, [4]Dynamic Meteorology Laboratory, [5]The University of Arizona

SE13 / Landslide Identification, Prediction, and Monitoring Using Multi-Disciplinary Emerging Technologies and Early Warning Systems in a Multi-Hazard Framework

Wed - 31 Jul | MR311

Time 08:30-10:30

Chair(s) Ying-Hsin WU, *Kyoto University*
Mauro ROSSI, *National Research Council (CNR)*
Chih-Chung CHUNG, *National Central University*

SE13-D3-AM1-311-001 | SE13-A010

Improvement of Intensity-duration Threshold in Southern Tagalog Region of the Philippines Using Hourly and Daily Rainfall Data and Interpolation Method
Wilbur MANIBO[1#+], Decibel FAUSTINO-ESLAVA[2], Nathaniel BANTAYAN[1], Beth Zaida UGAT[2], Joey Philip TORRES[1], Ryan CASTANETO[2], Loucel CUI[2], Jenielyn PADRONES[1], Cristino Jr. TIBURAN[1], Carla DIMALANTA[3]
[1]University of the Philippines, [2]University of the Philippines Los Baños, [3]University of the Philippines Diliman

SE13-D3-AM1-311-002 | SE13-A004

Landslides Induced by the 2018 Tomakomai, Japan MW 6.6 Earthquake
Chong XU[1#+], Xiaoyi SHAO[1], Siyuan MA[1]
[1]China Earthquake Administration

SE13-D3-AM1-311-003 | SE13-A009

Structurally-controlled Landslide Hazard Analysis of the Naga City, Cebu Landslide
Carmille Marie ESCAPE[1#+], Alfredo Mahar LAGMAY[2,3], Francesca LLANES[2], Krichi May CABACABA[4], Camille CUADRA[1], LiaAnne GONZALO[1], John Kenneth SUAREZ[3]
[1]University of the Philippines Resilience Institute, [2]University of the Philippines Diliman, [3]University of the Philippines Nationwide Operational Assessment of Hazards (UP-NOAH), [4]Project NOAH (Nationwide Operational Assessment of Hazards)

SE13-D3-AM1-311-004 | SE13-A012

Experimental Study of Bend Scour and its Protections for River Embankment
Tzu-Yi LAI[1#+]
[1]National Chung Hsing University

SE13-D3-AM1-311-005 | SE13-A014

On the Application of High Resolution Radar Rainfall Observation on Regional Early Warning of Landslide Hazards
Ying-Hsin WU[1#+], Eiichi NAKAKITA[1]
[1]Kyoto University

SE13-D3-AM1-311-006 | SE13-A016

Landslide Early Warning: Lessons Learned After 10 Year Experience in Italy
Mauro ROSSI[1#+], Ivan MARCHESINI[1], Maria Elena MARTINOTTI[1], Maria Teresa BRUNETTI[1], Silvia PERCCACCI[1], Vinicio BALDUCCI[1], Fausto GUZZETTI[1]
[1]National Research Council (CNR)

SE13-D3-AM1-311-007 | SE13-A017

Landslide Early Warning System in Fiji: Prospects and Challenges
Arishma RAM[1#+], Mark STEPHENS[2], Martin BROOK[1], Shane CRONIN[1]
[1]The University of Auckland, [2]University of The Bahamas

SE13-D3-AM1-311-008 | SE13-A002

Modification of TDR Penetrometer for Water Content Profiling in Shallow Landslide Monitoring
Chih-Chung CHUNG[1#+], Shih-Kai WEI[1]
[1]National Central University

SE09 / Active Volcanic Processes from the Mantle to the Atmosphere: Multidisciplinary Approaches to Monitoring, Hazards, and Impacts

Wed - 31 Jul | MR327

Time 08:30-10:30

Chair(s) Florian M. SCHWANDNER, *Jet Propulsion Laboratory, California Institute of Technology*
Philipson BANI, *The French Research Institute for Development*

SE09-D3-AM1-327-001 | SE09-A003

Characterization of Volcanic Features Within Benham Plateau and its Implications on the Evolution of the Benham Rise
Paola Jayme ROMAGUERA[1#], Jannine VASQUEZ[2+], Jamie Mary Loise TAN[2], Angela MASONGSONG[2], Ma. Criselda BALDAGO[1], Richard YBAÑEZ[1], Audrei Anne YBAÑEZ[1], Alfredo Mahar LAGMAY[1,3]
[1]University of the Philippines Diliman, [2]University of the Philippines, [3]University of the Philippines Nationwide Operational Assessment of Hazards (UP-NOAH)

SE09-D3-AM1-327-002 | SE09-A018

Morphology and Petrology Analysis of Pillow Lava in Karangsambung: Implication for Tectonic Karangsambung, Central Java Province, Indonesia
Dina GUNARSIH[1#+], Mirzam ABDURRACHMAN[1], Wildan HAMZAH[1], Zulfiah ZULFIAH[1]
[1]Bandung Institute of Technology

SE09-D3-AM1-327-003 | SE09-A012

Petrogenesis of Gede Volcanic Complex, West Java, Indonesia and its Implication to Ciletuh and Karangsambung Melange Complex Lineament
Erza WINANTO[1#+], Mirzam ABDURRACHMAN[1], Wildan HAMZAH[1]
[1]*Bandung Institute of Technology*

SE09-D3-AM1-327-004 | SE09-A010

Time Makes a Difference: Time Interval Controls on Magma Migration Geometry
Stephen PANSINO[1#+], Adel EMADZADEH[1], Benoit TAISNE[1]
[1]*Nanyang Technological University*

SE09-D3-AM1-327-005 | SE09-A001 (Invited)

Buffering of Magma Intrusions: A New Way to Classify Volcanoes
Chris NEWHALL[1#+]
[1]*Mirisbiris Garden and Nature Center*

SE09-D3-AM1-327-006 | SE09-A014 (Invited)

Petrological Studies from 2012, 2014 and 2017 Lava Products of Anak Krakatau, Indonesia
Idham Andri KURNIAWAN[1#+], Mirzam ABDURRACHMAN[1], Taufik ISMAIL[2], M. Nugraha KARTADINATA[3], Uut Ihsan Maulana SUPARMAN[4], Firman SAUQI[1]
[1]*Bandung Institute of Technology,* [2]*Mineral Technology College of Indonesia,* [3]*Center for Volcanology and Geological Hazard Mitigation,* [4]*Jenderal Soedirman University*

OS14 / Marine Debris – from Modelling to Management to Microplastics
OS17 / Advances in Oceanic Data Assimilation Methodologies, Forecasting and Reanalysis

Wed - 31 Jul | MR302

Time 08:30-10:30
Chair(s) Serena LEE, *Griffith University*
Yineng LI, *Chinese Academy of Sciences*

OS14-D3-AM1-302-001 | OS14-A004

Microplastic Concentrations in Urban Beach Sediment, Gold Coast, Australia
Serena LEE[1#+], Shima ZIAJAHROMI[1], Maggie MUURMANS[1]
[1]*Griffith University*

OS14-D3-AM1-302-002 | OS14-A002

Influence of Oceanographic and Meteorological Factors on Accumulation of Marine Debris on Agatti Island, India
Mugilarasan M[1#+], Veerasingam S[2], Venkatachalapathy RAMADOSS[1], Ranjani M[1]
[1]*Annamalai University,* [2]*CSIR-National Institute of Oceanography*

OS14-D3-AM1-302-003 | OS14-A006

Trapping of Microplastics in the Semi-enclosed Bohai Sea
Yanfang LI[1#+]
[1]*Yantai Institute of Coastal Zone Research, Chinese Academy of Sciences*

OS17-D3-AM1-302-004 | OS17-A017

Research on Application of Ocean Big Data Analysis and Forecast
Qingsheng MIAO[1#+], Yang YANG[1]
[1]*National Marine Data and Information Service*

OS17-D3-AM1-302-005 | OS17-A012

Quantifying Irreversible Mixing Using Contour Coordinates
Yu-Kun QIAN[1#+], Shiqiu PENG[1], Chang-Xia LIANG[2]
[1]*Chinese Academy of Sciences,* [2]*South China Sea Marine Prediction Center*

OS17-D3-AM1-302-006 | OS17-A010

Parameterization of Tidal Mixing in the Andaman Sea Based on the Internal Tide Energetics
Jiawen LIAO[1+], Shiqiu PENG[2#]
[1]*Ocean Science,* [2]*Chinese Academy of Sciences*

OS17-D3-AM1-302-007 | OS17-A011

Estimation of the Baroclinic Tidal Energy Dissipation in the Timor Sea Based on a General Circulation Model
Xixi WEN[1#+], Shiqiu PENG[1]
[1]*Chinese Academy of Sciences*

OS17-D3-AM1-302-008 | OS17-A008

The Tidal Effects on the Upper Sea Temperature Cooling Northeast Off the Hainan Island
Yineng LI[1#+], Enrique CURCHITSER[2], Shiqiu PENG[1], Jia WANG[3]
[1]*Chinese Academy of Sciences,* [2]*Rutgers University,* [3]*National Oceanic and Atmospheric Administration*

OS08 / Future Coastal Oceans Under Increasing Climate Change and Anthropogenic Stresses

Wed - 31 Jul | MR301

Time 08:30-10:30
Chair(s) Guan-hong LEE, *Inha University*
Zai-Jin YOU, *Ludong University*

OS08-D3-AM1-301-001 | OS08-A016 (Invited)

Recent Changes of the Asian Major Deltas: Rapid Shoreline and Seafloor Erosions
Jingpu (Paul) LIU[1#+]
[1]*North Carolina State University*

OS08-D3-AM1-301-002 | OS08-A002

Tug of War - Climate Control vs Human Intervention Reflected in Yellow River's Sediment Discharge: From the Mid-Holocene to the Anthropocene
Xiao WU[1#+]
[1]*Ocean University of China*

OS08-D3-AM1-301-003 | OS08-A012

Mid Holocene Coastal Flooding and Response of the Neolithic Culture on the South Yangtze Coast, East China
Zhanghua WANG[1#+]
[1]*East China Normal University*

OS08-D3-AM1-301-004 | OS08-A004

Seasonal Variations in Trace Element Geochemistry of Sediments Discharged by the Minjiang River, Southeastern China: Implications for Sediment Transport of Mountainous Rivers
Xing JIAN[1#+]
[1]*Xiamen University*

OS08-D3-AM1-301-005 | OS08-A007

Responses of Sedimentary Organic Matter in a Small River Estuary to the Typhoon Process: A Case Study of Quanzhou Bay

Yunhai LI[1#+], Yunpeng LIN[2]
[1]*Third Institute of Oceanography, Ministry of Natural Resources,* [2]*Ministry of Natural Resources*

OS08-D3-AM1-301-006 | OS08-A008 (Invited)

Recent Sediment Organic Carbon Sequestration Along the Asia Coasal Seas Under the Natural Climate Forcing and Anthropogenic Impacts

Limin HU[1#+], Xuefa SHI[1]
[1]*State Oceanic Administration*

OS08-D3-AM1-301-007 | OS08-A017

Sediment Suspension Affected by Rigid Vegetation

Sha LOU[1#+], Ming CHEN[1], Hongzhe LIU[1], Shuguang LIU[1], Guihui ZHONG[1]
[1]*Tongji University*

OS08-D3-AM1-301-008 | OS08-A015 (Invited)

Impacts of Intensive Human Activities on the Coast of China in the Last Decades

Zai-Jin YOU[1,2#+]
[1]*Ludong University,* [2]*University of Queensland*

AS03 / Monsoon Climates Over South, East and Southeast Asia in a Warming Environment

Wed - 31 Jul | Nicoll 1

Time 08:30-10:30

Chair(s) Jing-Jia LUO, *Nanjing University of Information Science & Technology*
Kyung-Ja HA, *Pusan National University*
Ramesh KRIPALANI, *India Institute of Tropical Meteorology*

AS03-D3-AM1-Nicoll 1-001 | AS03-A036 (Invited)

Hierarchical Modeling Approach to Study the South Asian Monsoon Dynamics Using an Interactive Vegetation Continent

Muhammad Adnan ABID[1#+], Fred KUCHARSKI[1], Simona BORDONI[2], In-Sik KANG[3], Mansour ALMAZROUI[4]
[1]*International Centre for Theoretical Physics,* [2]*California Institute of Technology,* [3]*Second Institute of Oceanography,* [4]*King Abdulaziz University*

AS03-D3-AM1-Nicoll 1-002 | AS03-A017

The Asymmetric Influence of the South China Sea Biweekly SST on the Abnormal Indian Monsoon Rainfall of 2002

Bakshi Hardeep VAID[1#+], Preethi BHASKAR[2], Ramesh KRIPALANI[2,3]
[1]*Nanjing University of Information Science & Technology,* [2]*Indian Institute of Tropical Meteorology,* [3]*Pukyong National University*

AS03-D3-AM1-Nicoll 1-003 | AS03-A034

Impact of Indian Ocean Warming on the Increasing Trend in Pre-monsoon Rainfall and Hadley Circulation over Bay of Bengal

Devanil CHOUDHURY[1#+], Debashis NATH[1], Wen CHEN[1]
[1]*Chinese Academy of Sciences*

AS03-D3-AM1-Nicoll 1-004 | AS03-A037

Moisture Transport Associated with Southwest Monsoon Rainfall over Sri Lanka in Strong and Weak Monsoon Years

Sherly SHELTON[1+], Zhaohui LIN[1#]
[1]*Chinese Academy of Sciences*

AS03-D3-AM1-Nicoll 1-005 | AS03-A021 (Invited)

ENSO-related Asian Summer Monsoon Changes over the Last Half Millennium

Fei LIU[1#+]
[1]*Nanjing University of Information Science & Technology*

AS03-D3-AM1-Nicoll 1-006 | AS03-A028 (Invited)

Causal Links on Interannual Timescale Between ENSO and the IOD in CMIP5 Future Simulations

Thanh LE[1#+], Deg-Hyo BAE[1]
[1]*Sejong University*

AS03-D3-AM1-Nicoll 1-007 | AS03-A054

Asian Monsoon Variation Following the 1783 Laki Eruption

Chaochao GAO[1#+]
[1]*Zhejiang University*

BG06 / The Role of Trace Metals in Shaping Biological Communities in Modern Oceans BG10 / Coastal Blue Carbon: Recent Assessments, New Methods, Data Syntheses and Advance in Carbon Finance

Wed - 31 Jul | MR300

Time 08:30-10:30

Chair(s) Anwesha GHOSH, *Indian Institute of Science Education and Research Kolkata*
Raghab RAY, *The University of Tokyo*

BG06-D3-AM1-300-001 | BG06-A002

Sources and Bioaccumulation of Rare Earth Elements in the Sediment and Dominant Mangrove Plants in the Indian Sundarban

Raghab RAY[1#+], Sanjay Kumar MANDAL[2], Tapan Kumar JANA[3]
[1]*The University of Tokyo,* [2]*Sundarban Hazi Desarat College,* [3]*University of Calcutta*

BG06-D3-AM1-300-002 | BG06-A008 (Invited)

Variability of Paleoredox Conditions in Sediments from Two Modern Basins Located within the Oxygen Minimum Zone of the Eastern Sub-tropical North Pacific

Karla MEJIA-PIÑA[1+], Miguel Angel HUERTA-DIAZ[1#], Oscar GONZALEZ-YAJIMOVICH[1]
[1]*Universidad Autónoma de Baja California*

BG06-D3-AM1-300-003 | BG06-A007

Spatial Distribution and Ecological Risk Assessment of Trace Metals in Different Marine and Coastal Environments of Andaman Islands

Prasun GOSWAMI[1#+], Nambali Valsalan VINITHKUMAR[1], Gopal DHARANI[1]
[1]*National Institute of Ocean Technology*

BG10-D3-AM1-300-004 | BG10-A002 (Invited)

An Empirical Model for Morphological Structures in Mangrove Areal Root System with Multiple-order Roots
Masaya YOSHIKAI[1#+], Takashi NAKAMURA[1], Rempei SUWA[2], Reginald ARGAMOSA[3], Ariel BLANCO[3], Eugene HERRERA[3], Ronald MALIAO[4], Yasmin PRIMAVERA-TIROL[4], Kazuo NADAOKA[1]
[1]Tokyo Institute of Technology, [2]Japan International Research Center for Agricultural Sciences, [3]University of the Philippines Diliman, [4]Aklan State University

BG10-D3-AM1-300-005 | BG10-A004

Synthesis of Advances in Knowledge to Reconcile Science and Policy in Driving Seagrass Blue Carbon Studies for the Indo-pacific Region
Mohammad ROZAIMI[1#+], Natasha ARINA[1], Nur HIDAYAH[1], Mohammad FAIROZ[1], Mohd Shahrul MOHD NADZIR[1]
[1]Universiti Kebangsaan Malaysia

ST27 / General Session in Solar and Terrestrial Sciences

Wed - 31 Jul | MR309

Time 08:30-10:30
Chair(s) Shasha ZOU, *University of Michigan*
Mario BISI, *United Kingdom Research and Innovation - Science & Technology Facilities Council*

ST27-D3-AM1-309-001 | ST27-A003 (Invited)

Comparison of Data-driven Coronal Field Models of the Sun Using a Flux-emergence Simulation as a Ground-truth Data Set
Shin TORIUMI[1#+], Shinsuke TAKASAO[2], Satoshi INOUE[2], Mark CHEUNG[3], Chaowei JIANG[4]
[1]Japan Aerospace Exploration Agency, [2]Nagoya University, [3]Lockheed Martin Solar and Astrophysics Laboratory, [4]Harbin Institute of Technology

ST27-D3-AM1-309-002 | ST27-A008

Formation of Filamentary Structures of Solar Prominences by Condensation of Coronal Plasmas with Shear Flows
Gwang-Son CHOE[1#+], Inhyeok SONG[1], Sibaek YI[1], Hongdal JUN[1], Minhwan JANG[1]
[1]Kyung Hee University

ST27-D3-AM1-309-003 | ST27-A010

Baseline Oscillations and Grand Solar Cycles of Solar Magnetic Field in the Past 100k Years
Valentina ZHARKOVA[1#+], Simon SHEPHERD[2], Sergei ZHARKOV[3], Elena POPOVA[4,5]
[1]Northumbria University, [2]Bradford University, [3]University of Hull, [4]Institute of the Physics of Earth, [5]Moscow State University

ST27-D3-AM1-309-004 | ST27-A004

Structure of the Interplanetary Shock Front from the Solar Wind Plasma Measurements
Natalia BORODKOVA[1#+], Victor ESELEVICH[1], Olga SAPUNOVA[1], Yuri YERMOLAEV[1], Georgy ZASTENKER[1]
[1]Russian Academy of Sciences

ST27-D3-AM1-309-005 | ST27-A014

Statistical Survey of Solar Wind Dynamic Pressure Pulses Based on Wind Observations
Pingbing ZUO[1#+], Xueshang FENG[2]
[1]Harbin Institute of Technology, Shenzhen, [2]Chinese Academy of Sciences

ST27-D3-AM1-309-006 | ST27-A012

Beyond the Mini-solar Maximum of Solar Cycle 24: Declining Solar Magnetic Fields, Response of the Terrestrial Magnetosphere and the Amplitude of Solar Cycle 25
Susanta Kumar BISOI[1#+], Janardhan PADMANABHAN[2], Madhusudan INGALE[3]
[1]Chinese Academy of Sciences, [2]Physical Research Laboratory, [3]Indian Institute of Science Education and Research

ST27-D3-AM1-309-007 | ST27-A013 (Invited)

Global Study of Ionospheric Plasma Irregularities with Swarm Satellites
Wojciech MILOCH[1#+], Yaqi JIN[1], Chao XIONG[2], Andres SPICHER[1], Guram KERVALISHVILI[2], Lasse CLAUSEN[1], Claudia STOLLE[2]
[1]University of Oslo, [2]Helmholtz Centre Potsdam GFZ German Research Centre for Geosciences

IG12 / Global and Societal Impacts of Geohazards

Wed - 31 Jul | MR323

Time 08:30-10:30
Chair(s) Yasukuni OKUBO, *Japan Space Systems*

IG12-D3-AM1-323-001 | IG12-A003

Regional Plate Boundary Controls on the Potential for Future Earthquakes Within Thailand and Surrounding Regions
Passakorn PANANONT[1#+], Matthew HERMAN[2], Kevin P. FURLONG[3], Beth MEYERS[3], Patinya PORNSOPIN[4]
[1]Kasetsart University, [2]Utrecht University, [3]Penn State University, [4]Thai Meteorological Department

IG12-D3-AM1-323-002 | IG12-A002

Tectonic Interpretation of Active Fault Extending in Myanmar, Laos and China by Relief Map of ASTER GDEM and Harmonized Geological Map
Yasukuni OKUBO[1#+], Yutaka TAKAHASHI[2], Myint SOE[3], Sompob WONGSOMSAK[4], Masaru FUJITA[1]
[1]Japan Space Systems, [2]Geological Survey of Japan, [3]Department of Geological Survey and Mineral Exploration, [4]Department of Mineral Resources

ST08 / Magnetic Flux Ropes Throughout the Solar System: Theory, Simulations and Observations

Wed - 31 Jul | MR308

Time 11:00-12:30
Chair(s) Gangkai POH, *NASA Goddard Space Flight Center*

ST08-D3-AM2-308-001 | ST08-A014 (Invited)

Understanding the Evolution and Structure of Magnetic Flux Ropes Using Data-driven Time-dependent Magnetofrictional Modelling
Daniel PRICE[1#+], Jens POMOELL[1], Erkka LUMME[1], E. KILPUA[1]
[1]University of Helsinki

ST08-D3-AM2-308-002 | ST08-A010 (Invited)

Dynamics of Magnetic Flux Ropes Associated with Magnetic Reconnection in the Earth's Magnetosphere
Meng ZHOU[1,2#+], Xiaohua DENG[3], Zhihong ZHONG[1], Jean BERCHEM[2], Mostafa EL-ALAOUI[2], Hengyan MAN[1], Raymond WALKER[2]
[1]Nanchang University, [2]University of California, Los Angeles, [3]Wuhan University

ST08-D3-AM2-308-003 | ST08-A015 (Invited)

Upstream Magnetopause Dynamics at Ganymede: Reconnection in a Sub-Alfvenic System
Hongyang ZHOU[1#+], Gabor TOTH[1], Xianzhe JIA[1], Yuxi CHEN[1]
[1]University of Michigan

ST08-D3-AM2-308-004 | ST08-A003

FTE Growth Mechanisms: A Comparative Analysis
Mojtaba AKHAVAN-TAFTI[1#+], Minna PALMROTH[2], James SLAVIN[1], Markus BATTARBEE[2], Urs GANSE[2], Yann PFAU-KEMPF[2], Maxime GRANDIN[2], Guan LE[3], Daniel GERSHMAN[4]
[1]University of Michigan, [2]University of Helsinki, [3]National Aeronautics and Space Administration, [4]NASA Goddard Space Flight Center

ST08-D3-AM2-308-005 | ST08-A019

Formation of Magnetic Flux Ropes at Mercury Observed with MESSENGER
Jun ZHONG[1#+]
[1]Institute of Geology and Geophysics, Chinese Academy of Sciences

ST06 / Magnetohydrodynamic Waves in Solar Magnetic Structures: Seismology and Heating

Wed - 31 Jul | MR304

Time 11:00-12:30
Chair(s) Rekha JAIN, *The University of Sheffield*
Marcel GOOSSENS, *KU Leuven*

ST06-D3-AM2-304-001 | ST06-A018 (Invited)

Wave Mode Conversion in the Solar Corona
Peng-Fei CHEN[1#+]
[1]Nanjing University

ST06-D3-AM2-304-002 | ST06-A013

A New Analysis Procedure for Detecting Periodicities within Complex Solar Coronal Arcades
Farhad ALLIAN[1#+], Rekha JAIN[1]
[1]The University of Sheffield

ST06-D3-AM2-304-003 | ST06-A005 (Invited)

Apparent Cross-field Superslow Propagation of Magnetohydrodynamic Waves in a Flux Rope Hosting Prominence
Takafumi KANEKO[1#+]
[1]Nagoya University

ST06-D3-AM2-304-004 | ST06-A017

Oscillations of Tornado Observed By SDO/AIA
Yuzong ZHANG[1#+]
[1]Chinese Academy of Sciences

ST06-D3-AM2-304-005 | ST06-A009

Three-dimensional MHD Simulation of the Fast Solar Wind Acceleration
Munehito SHODA[1#+], Takaaki YOKOYAMA[2], Takeru SUZUKI[2]
[1]National Astronomical Observatory of Japan, [2]The University of Tokyo

ST06-D3-AM2-304-006 | ST06-A016

The Observational Evidence for the Internally Excited 3 Minute Umbral Oscillations
Kyuhyoun CHO[1#+], Jongchul CHAE[1]
[1]Seoul National University

SE20 / Crustal Mechanics Integrations: Observations, Models and Implications

Wed - 31 Jul | MR303

Time 11:00-12:30
Chair(s) Chung-Han CHAN, *Nanyang Technological University*

SE20-D3-AM2-303-001 | SE20-A002

Ductile Deformation Explains the Physics of Friction and Genesis of Earthquakes
James Daniel Paul MOORE[1#+], Giacomo POZZI[2], Lars HANSEN[3], Nicola DE PAOLA[2], Stefan NIELSEN[2]
[1]Nanyang Technological University, [2]University of Durham, [3]University of Oxford

SE20-D3-AM2-303-002 | SE20-A005

Fem Simulations of Spontaneous Rupture Propagations Along the Fault with Dissimilar Anisotropic Materials
Shoubiao ZHU[1,2#+]
[1]China Earthquake Administration, [2]University of Chinese Academy of Sciences

SE20-D3-AM2-303-003 | SE20-A010

Earth Crust Density Model Creation Based on Joint Inversion
Petr MARTYSHKO[1#+]
[1]The Ural Branch of Russian Academy of Sciences

SE20-D3-AM2-303-004 | SE20-A009

Discrete Element Modeling of a Subduction Zone with a Seafloor Irregularity and its Impact on the Seismic Cycle
Liqing JIAO[1#], Chung-Han CHAN[1+], Paul TAPPONNIER[1]
[1]Nanyang Technological University

SE20-D3-AM2-303-005 | SE20-A001

Probabilistic Seismic Hazard Assessment for Myanmar and its Metropolitans
Chung-Han CHAN[1#+], Yu WANG[1,2], Myo THANT[3,4], Aung Kyaw MYAT[5], Phyo Maung MAUNG[1]
[1]Nanyang Technological University, [2]National Taiwan University, [3]University of Yangon, [4]Myanmar Earthquake Committee, [5]Pyay Technological University

HS08 / Urban Development and Climate Change

Wed - 31 Jul | MR330

Time 11:00-12:30
Chair(s) Jeanne Jinhui HUANG, *Nankai University*

HS08-D3-AM2-330-001 | HS08-A005 (Invited)

Spatiotemporal Trends of Precipitation in Two Mega Cities of North China Plain
Jeanne Jinhui HUANG[1#+], Chao WANG[2]
[1]Nankai University, [2]Chongqing Jiaotong University

HS08-D3-AM2-330-002 | HS08-A004

Stormwater Quality and Road Sediments Build-up Process in Semi-arid Area of China
Jeanne Jinhui HUANG[1#], Jingshu Shirley WANG[1+]
[1]Nankai University

HS08-D3-AM2-330-003 | HS08-A012

Quantifying Benefits of Ecological Water Supply Based on Emergy Theory Analysis
Xianfeng HUANG[1#+]
[1]*Hohai University*

HS09 / Hydrometric Monitoring and Data Analysis
HS11 / Hydroinformatics

Wed - 31 Jul | MR329

Time 11:00-12:30

Chair(s) Rita S.W. YAM, *National Taiwan University*
Gwo-Fong LIN, *National Taiwan University*
Qiang DAI, *Nanjing Normal University*

HS09-D3-AM2-329-001 | HS09-A014

Multi-trophic Responses to Environmental Changes in Different Mountain Lake Ecosystems from Subtropical Taiwan
Rita S.W. YAM[1#+], Chih-Hsuan FAN[1], Yen-Tzu FAN[1], Jih-Sheng HUANG [1]
[1]*National Taiwan University*

HS09-D3-AM2-329-002 | HS09-A019

Wireless Environmental Sensing and Monitoring Network for Production of Low-potassium Muskmelon (Cucumis melo L.) Fruits Through Hydroponic Nutrient Management in Greenhouse Environment
Rita S.W. YAM[1], Yen-Tzu FAN[1+], Hsiao-Feng LO[1#], Chin-Ling WEI[1], Jing-Tian LIN[1], Chihhao FAN[1]
[1]*National Taiwan University*

HS11-D3-AM2-329-003 | HS11-A001

A Human-hazard Integrated City Model for Dynamic Vulnerability Assessment
Shuliang ZHANG[1#+], Qiang DAI[1], Xuehong ZHU[1], Quntao YANG[1]
[1]*Nanjing Normal University*

HS11-D3-AM2-329-004 | HS11-A013

Critical Review on Quantitative Designing Water Quality Monitoring Networks in Watersheds
Jiping JIANG[1#+], Sijie TANG[1], Yi ZHENG[1]
[1]*Southern University of Science and Technology*

HS11-D3-AM2-329-005 | HS11-A008

A Publicly Available GIS Based Online Web Platform for Reservoir Inundation Mapping in the Lower Mekong Region
Aekkapol AEKAKKARARUNGROJ[1#+], Farrukh CHISHTIE[2], Nuntarut LOKETKAWEE[1], Hamid MEHMOOD[3], Peter CUTTER[4]
[1]*SERVIR-Mekong Asian Disaster Preparedness Center Bangkok,* [2]*SERVIR-Mekong Asian Disaster Preparedness Center,* [3]*Institute of Water, Environment and Health, United Nations University,* [4]*NatureServe*

HS22 / Satellite Remote Sensing Data Products for Water Cycle Studies and Societal Applications
HS27 / Evapotranspiration Estimation from Plot to Global Scale Using Instruments, Models and Remote Sensing

Wed - 31 Jul | MR328

Time 11:00-12:30

Chair(s) Rong LIU, *Chinese Academy of Sciences*
Marouane TEMIMI, *Khalifa University of Science and Technology*
Xiwu ZHAN, *National Oceanic and Atmospheric Administration*
Youssef WEHBE, *Khalifa University of Science and Technology*
Hongkai GAO, *Chinese Academy of Sciences*
Hailong WANG, *Sun Yat-sen University*

HS22-D3-AM2-328-001 | HS22-A014

Contributions of the Grace Mission to Water Cycle Studies
Byron TAPLEY[1#+]
[1]*University of Texas at Austin*

HS22-D3-AM2-328-002 | HS22-A007 (Invited)

The Impacts of Rainfall Spatial Variability on Flood Modelling
Nergui NANDING[1,2#+], Huan WU[1]
[1]*Sun Yat-sen University,* [2]*University of Bristol*

HS22-D3-AM2-328-003 | HS22-A005

Mapping of Flood Hazard Index (FHI) Using Landsat Data for Emergency Relief Planning and Prioritization in Myanmar
Kittiphong PHONGSAPAN[1#+], Farrukh CHISHTIE[1], Khun San AUNG[1], Peeranan TOWASHIRAPORN[1], Thiri MAUNG[2], Ate POORTINGA[3]
[1]*SERVIR-Mekong Asian Disaster Preparedness Center,* [2]*Department of Disaster Management (DDM),* [3]*Spatial Informatics Group*

HS27-D3-AM2-328-004 | HS27-A016 (Invited)

The Importance of Radiation in Modeling Evapotranspiration and its Components in Humid Subalpine Ecosystems, Southwest, China
Genxu WANG[1#], Zhaoyong HU[2+], Juying SUN[2], Xiangyang SUN[1]
[1]*Institute of Mountain Hazards and Environment, Chinese Academy of Sciences,* [2]*Chinese Academy of Sciences*

HS27-D3-AM2-328-005 | HS27-A003 (Invited)

Complementary Principle of Evaporation: From Original Linear Relationship to Generalized Nonlinear Function
Songjun HAN[1#+], Fuqiang TIAN[2]
[1]*China Institute of Water Resources and Hydropower Research,* [2]*Tsinghua University*

HS27-D3-AM2-328-006 | HS27-A001

Study on the Impact of Climate Change and Land Use on the Runoff and Evaporation in Upper Han River in China
Dengfeng LIU[1#+], Qian YANG[1], Mu LIN[2], Qiang HUANG[1], Hui LIU[3]
[1]*Xi'an University of Technology,* [2]*Central University of Finance and Economics,* [3]*China Institute of Water Resources and Hydropower Research*

PS12 / Juno at Jupiter and the Earth-based Observation Campaign

Wed - 31 Jul | MR310

Time 11:00-12:30
Chair(s) Alessandro MURA, *National Institute for Astrophysics*

PS12-D3-AM2-310-001 | PS12-A004

Juno and Earth-based Visible and Near-infrared Observations of Jupiter's New Planetary-scale Equatorial Disturbance
Glenn ORTON[1#+], Thomas MOMARY[1], Kevin BAINES[2], Fachreddin TABATABA-VAKILI[1], John ROGERS[3], Gerald EICHSTAEDT[4], Michael WONG[5], Imke DE PATER[6], Andrew STEPHENS[7], Rohini GILES[8], Arrate ANTUNANO[9], Leigh FLETCHER[9], Nahid CHOWDHURY[9], Thomas STALLARD[9], Henrik MELIN[9], Thomas GREATHOUSE[8], Gordon BJORAKER[10], Julie RATHBUN[11]
[1]Jet Propulsion Laboratory, California Institute of Technology, [2]University of Wisconsin-Madison, [3]British Astronomical Association, [4]N/A, [5]University of California, Bekeley, [6]University of California, Berkeley, [7]Gemini Observatory, [8]Southwest Research Institute, [9]University of Leicester, [10]NASA Goddard Space Flight Center, [11]Planetary Science Institute

PS12-D3-AM2-310-002 | PS12-A012

Long-term Evolution of Circumpolar Cyclones on Jupiter from Polar Observations with Junocam
Fachreddin TABATABA-VAKILI[1#+], Glenn ORTON[1], John ROGERS[2], Candice HANSEN[3], Gerald EICHSTAEDT[4], Michael RAVINE[5], Michael CAPLINGER[5], Thomas MOMARY[1], James SINCLAIR[1], Rohini GILES[1], Scott BOLTON[6]
[1]Jet Propulsion Laboratory, California Institute of Technology, [2]British Astronomical Association, [3]Planetary Science Institute, [4]N/A, [5]Malin Space Science Systems, [6]Southwest Research Institute

PS12-D3-AM2-310-003 | PS12-A017

Determining the Depth of the Great Red Spot with Juno Gravity Measurements
Marzia PARISI[1#+], William FOLKNER[1], Eli GALANTI[2], Yohai KASPI[2], Dustin BUCCINO[1], Kamal OUDRHIRI[1], Scott BOLTON[3]
[1]NASA Jet Propulsion Laboratory, [2]Weizmann Institute of Science, [3]Southwest Research Institute

PS12-D3-AM2-310-004 | PS12-A009 (Invited)

The Juno Gravity Experiment: Revealing Juno's Interior and Deep Flows
Yohai KASPI[1#+], Eli GALANTI[1], William HUBBARD[2], David STEVENSON[3], Scott BOLTON[4], Tristan GUILLOT[5], Luciano IESS[6], William FOLKNER[7], Daniele DURANTE[6], Marzia PARISI[7], Yamila MIGUEL[8], Steven LEVIN[9], John CONNERNEY[10]
[1]Weizmann Institute of Science, [2]The University of Arizona, [3]Geological and Planetary Sciences, California Institute of Technology, [4]Southwest Research Institute, [5]Observatoire De La Cote D'Azur, [6]Sapienza University of Rome, [7]NASA Jet Propulsion Laboratory, [8]University of Leiden, [9]Jet Propulsion Laboratory, California Institute of Technology, [10]NASA Goddard Space Flight Center

PS12-D3-AM2-310-005 | PS12-A016 (Invited)

Current Understanding of the Formation of Jupiter Midway Through the Juno Mission
Jonathan LUNINE[1#+], Tristan GUILLOT[2], Ravit HELLED[3], William HUBBARD[4], David STEVENSON[5], Sushil ATREYA[6], Andrew INGERSOLL[5]
[1]Cornell University, [2]Observatoire De La Cote D'Azur, [3]University of Zurich, [4]The University of Arizona, [5]Geological and Planetary Sciences, California Institute of Technology, [6]University of Michigan

PS12-D3-AM2-310-006 | PS12-A013 (Invited)

The Galilean Moons as Seen by JIRAM After 3 Years of the Juno Mission
Federico TOSI[1#+], Alessandro MURA[1], Gianrico FILACCHIONE[1], Giuseppe SINDONI[2], Alberto ADRIANI[1]
[1]National Institute for Astrophysics, [2]Italian Space Agency (ASI)

SE23 / Oceanic Lithosphere: from Ridge to Arc

Wed - 31 Jul | MR327

Time 11:00-12:30
Chair(s) Betchaida PAYOT, *University of the Philippines Diliman*

SE23-D3-AM2-327-001 | SE23-A002

Gravity and Magnetic Data Insight into the Oceanic Crust Characterization of Slow Spreading Ridges
Gabriella ALODIA[1#+], Chris GREEN[1], Andrew MCCAIG[1], Douglas PATON[1], Simon CAMPBELL[2]
[1]University of Leeds, [2]Getech Group Plc

SE23-D3-AM2-327-002 | SE23-A003

Plagioclase Peridotites in Southern Palawan Ophiolite, Philippines: Records of Melt-rock Interaction in the Upper Mantle
Florence Annette LABIS[1#+], Betchaida PAYOT[2], Gabriel Theophilus VALERA[2], Julius PASCO[1], Jesley Mei DYCOCO[2], Sarena TARONGOY[2], Maria Stella CORPUZ[2], Macky BARRIENTOS[1], Natsumi REYES[1]
[1]University of the Philippines, [2]University of the Philippines Diliman

SE23-D3-AM2-327-003 | SE23-A008

Ancient, Highly Depleted Mantle Beneath French Polynesia Archipelago Constrained by Rhenium-Osmium Isotope and Highly-siderophile Element Compositions of Mantle Xenoliths
Norikatsu AKIZAWA[1#+], Akira ISHIKAWA[2], Katsuhiko SUZUKI[3], Tetsu KOGISO[4]
[1]The University of Tokyo, [2]Tokyo Institute of Technology, [3]Japan Agency for Marine-Earth Science and Technology, [4]Kyoto University

SE23-D3-AM2-327-004 | SE23-A004

Petrological Characteristics of the Bantoon Serpentinite and Cansi Volcanics, Cebu, Philippines: Evidence for Arc and Accretionary Wedge Processes
Sarena TARONGOY[1#+], Betchaida PAYOT[1], Jillian Aira GABO-RATIO[1], Carla DIMALANTA[1], Noelynna RAMOS[1], Decibel FAUSTINO-ESLAVA[2], Leo ARMADA[1]
[1]University of the Philippines Diliman, [2]University of the Philippines Los Baños

SE23-D3-AM2-327-005 | SE23-A009

Deformed Continental Arc Sequences in the South Tianshan: New Constraints to the Early Paleozoic Accretionary Tectonics of the Central Asian Orogenic Belt
Bo WANG[1#+], Linglin ZHONG[1]
[1]Nanjing University

SE23-D3-AM2-327-006 | SE23-A006

Petrogenesis of Mafic-Ultramafic Clasts of the Dos Hermanos Mélange (Philippines): Insights to the Evolution of Western Luzon
Julius PASCO[1#+], Betchaida PAYOT[2], Gabriel Theophilus VALERA[2], Jesley Mei DYCOCO[2], Jon Dave PILLEJERA[2], Anika UY[2], Carla DIMALANTA[2], Leo ARMADA[2]
[1]University of the Philippines, [2]University of the Philippines Diliman

OS17 / Advances in Oceanic Data Assimilation Methodologies, Forecasting and Reanalysis

Wed - 31 Jul | MR302

Time 11:00-12:30

Chair(s) Shiqiu PENG, *Chinese Academy of Sciences*

OS17-D3-AM2-302-001 | OS17-A013 (Invited)

An Approach to Data Analysis for El Niño-southern Oscillation Predictability

Wansuo DUAN[1#+]

[1]*Chinese Academy of Sciences*

OS17-D3-AM2-302-002 | OS17-A003

A Study of the Initialization and Ensemble Probabilistic Forecasts of ENSO Based on Ensemble Coupled Data Assimilation

Yanqiu GAO[1#+]

[1]*Second Institute of Oceanography, Ministry of Natural Resources*

OS17-D3-AM2-302-003 | OS17-A009

Observing System Simulation Experiment of Underwater Glider Observed T/S Profiles in the Xisha Area of South China Sea

Yuhang ZHU[1+], Shiqiu PENG[1#]

[1]*Chinese Academy of Sciences*

OS17-D3-AM2-302-004 | OS17-A014

A Preliminary Assessment of the Impacts of Assimilating Synchronously Glider-observed T/S Profiles on the Real-time Marine Forecasting for the Northern South China Sea

Ping LI[1+], Shiqiu PENG[1#], Yuhang ZHU[1]

[1]*Chinese Academy of Sciences*

OS17-D3-AM2-302-005 | OS17-A006

The Long-term Variability of Significant Wave Height in Western Northern Pacific and South China Sea Regions

Shaotian LI[1#+], Yineng LI[1], Shiqiu PENG[1]

[1]*Chinese Academy of Sciences*

OS08 / Future Coastal Oceans Under Increasing Climate Change and Anthropogenic Stresses

Wed - 31 Jul | MR301

Time 11:00-12:30

Chair(s) Daidu FAN, *Tongji University*
Jingping XU, *Southern University of Science and Technology*

OS08-D3-AM2-301-001 | OS08-A003

Coastal Sea Level Projections with Warming of 1.5 Degree

Svetlana JEVREJEVA[1#+]

[1]*National Oceanography Centre*

OS08-D3-AM2-301-002 | OS08-A014

Quantifying the Impacts of Human Interventions on Relative Mean Sea Level Change in the Pearl River Delta, China

Huayang CAI[1#+]

[1]*Sun Yat-sen University*

OS08-D3-AM2-301-003 | OS08-A010

The Increasing Threat of Typhoon to Coastal Area in the Western North Pacific Between 1980-2015

Hong-Yuan SHI[1#+]

[1]*Ludong University*

OS08-D3-AM2-301-004 | OS08-A013

In Situ Observations of Wave-supported Fluid Mud Processes on the Yellow River Subaqueous Delta

Xiaolei LIU[1#+], Lukuan MA[1]

[1]*Ocean University of China*

OS08-D3-AM2-301-005 | OS08-A001

Sediment Transport Processes in a Mountainous River Subaqueous Delta

Aijun WANG[1#+]

[1]*Ministry of Natural Resources*

OS08-D3-AM2-301-006 | OS08-A019 (Invited)

ROMS Study on Increased Sedimentation in the Altered Nakdong Estuary, Korea

Jongwi CHANGE[1], Guan-hong LEE[1#+], Courtney HARRIS[2]

[1]*Inha University,* [2]*Virginia Institute of Marine Science*

SS05 / Space Agency Remote Sensing of the Earth

Wed - 31 Jul | Nicoll 1

Time 11:00-12:30

Chair(s) Wenjian ZHANG, *World Meteorological Association*

SS05-D3-AM2-Nicoll 1-001 | SS05-A001 (Invited)

NASA Earth Science Division Satellite Program – Status and Update

Jack KAYE[1#+], Eric IANSON[1]

[1]*NASA Earth Science Division*

SS05-D3-AM2-Nicoll 1-002 | SS05-A002 (Invited)

NOAA's Space-based Remote Sensing Activities

Ivan CSISZAR[1#+]

[1]*NOAA National Environmental Satellite, Data, and Information Service*

SS05-D3-AM2-Nicoll 1-003 | SS05-A003 (Invited)

Current and Future Japanese EO Satellite Programs and Related Activities and Issues

Teruyuki NAKAJIMA[1#+]

[1]*Japan Aerospace Exploration Agency*

ST16 / Peculiar Nonlinear Phenomena in the Modern Solar-Terrestrial Physics

Wed - 31 Jul | MR309

Time 11:00-12:30

Chair(s) Alexei DMITRIEV, *National Central University*

ST16-D3-AM2-309-001 | ST16-A003 (Invited)

Observations of Upward Propagating Waves in the Transition Region and Corona Above Sunspots

Zhenghua HUANG[1#+], Zhenyong HOU[1], Lidong XIA[1], Bo LI[1], Hui FU[1]

[1]*Shandong University*

ST16-D3-AM2-309-002 | ST16-A006 (Invited)

Plasma Jets in the Solar Corona: Statistics, Dynamics and Oscillations
Valery NAKARIAKOV[1#+]
[1]*University of Warwick*

ST16-D3-AM2-309-003 | ST16-A008

Observations of the Oscillatory Dynamics of Cometary Tails in the Solar Wind
Giuseppe NISTICO[1#+], Valery NAKARIAKOV[2], Karl BATTAMS[3], Volker BOTHMER[1]
[1]*University of Göttingen,* [2]*University of Warwick,* [3]*Naval Research Laboratory*

ST16-D3-AM2-309-004 | ST16-A011

Magnetopause and its Boundary Layers Under Radial IMF Condition: Observations and Simulation Results
Gilbert PI[1#+], Zdenek NEMECEK[1], Jana SAFRANKOVA[1], Jih-Hong SHUE[2], Kostiantyn GRYGOROV[1]
[1]*Charles University,* [2]*National Central University*

ST16-D3-AM2-309-005 | ST16-A005

Dayside Magnetosphere and Ionosphere Responses to Transient Upstream Disturbances Measured by Satellite-imager Coordination
Boyi WANG[1#+], Yukitoshi NISHIMURA[1]
[1]*Boston University*

ST16-D3-AM2-309-006 | ST16-A010

Energetic Electron Enhancements Under Radiation Belt (L < 1.2) During Nonstorm Interval on August 1, 2008
Alla SUVOROVA[1#+]
[1]*National Central University*

IG24 / Geo-science Education, Geo-heritage and Geo-conservation

Wed - 31 Jul | MR323

Time 11:00-12:30

Chair(s) Hoe Teck TAN, *School of Science and Technology*
Mega Fatimah ROSANA, *Padjadjaran University*
Than HTUN, *Myanmar Precious Resources Group*

IG24-D3-AM2-323-001 | IG24-A006

Geo-science Education Camp
Hoe Teck TAN[1#+]
[1]*School of Science and Technology*

IG24-D3-AM2-323-002 | IG24-A007

Geoscience Education Activities by Southern Region Weather Center of Central Weather Bureau in Taiwan
I-Te LEE[1,2#+]
[1]*Central Weather Bureau,* [2]*National Central University*

IG24-D3-AM2-323-003 | IG24-A002

Potential Geoparks and Sustainable Development in Myanmar
Than HTUN[1#+]
[1]*Myanmar Precious Resources Group*

IG24-D3-AM2-323-004 | IG24-A001

Milestone of Geoparks Development in West Java, Indonesia
Mega Fatimah ROSANA[1#+]
[1]*Padjadjaran University*

IG24-D3-AM2-323-005 | IG24-A005

Geoheritage and Geoparks in China
Kejian XU[1#+]
[1]*China University of Geosciences*

IG24-D3-AM2-323-006 | IG24-A004

Linkages Among Geoconservation, Livelihood and Geotourism: A Case of Xingwen UNESCO Global Geopark of China
Kejian XU[1#+]
[1]*China University of Geosciences*

ST18 / Multi-scale Diagnosis of Magnetic Reconnection

Wed - 31 Jul | MR308

Time 13:30-15:30

Chair(s) Meng ZHOU, *Nanchang University*
Rongsheng WANG, *University of Science and Technology of China*

ST18-D3-PM1-308-001 | ST18-A007 (Invited)

The Non-ideal Electric Field Observed in the Separatrix Region of a Magnetotail Reconnection Event
Xiancai YU[1#+], Quanming LU[1]
[1]*University of Science and Technology of China*

ST18-D3-PM1-308-002 | ST18-A025

Observations of Flux Ropes with Strong Energy Dissipation in the Magnetotail
Shiyong HUANG[1#+], Kui JIANG[1], Zhigang YUAN[1], Meng ZHOU[2,3], Fouad SAHRAOUI[4], Huishan FU[5], Xiaohua DENG[1], Yuri KHOTYAINTSEV[6], Xiongdong YU[1], Linghui HE[1], Dan DENG[1], James BURCH[7]
[1]*Wuhan University,* [2]*Nanchang University,* [3]*University of California, Los Angeles,* [4]*Plasma Physics Laboratory,* [5]*Beihang University,* [6]*Swedish Institute of Space Physics,* [7]*Southwest Research Institute*

ST18-D3-PM1-308-003 | ST18-A003

Extension of the Electron Diffusion Region in the Reconnection Exhaust
Zhihong ZHONG[1+], Meng ZHOU[1,2#], Rongxin TANG[1,3], Xiaohua DENG[4], Yuri KHOTYAINTSEV[5], Barbara GILES[6], William PATERSON[7], Ye PANG[1], Hengyan MAN[1], Christopher RUSSELL[2], James BURCH[8]
[1]*Nanchang University,* [2]*University of California, Los Angeles,* [3]*Memorial University of Newfoundland,* [4]*Wuhan University,* [5]*Swedish Institute of Space Physics,* [6]*NASA Goddard Space Flight Center,* [7]*National Aeronautics and Space Administration,* [8]*Southwest Research Institute*

ST18-D3-PM1-308-004 | ST18-A029 (Invited)

Electron Heating Inside Diffusion Region and at Separatrices During Magnetopause Reconnection: Numerical Simulations
Andrey DIVIN[1#+], Andris VAIVADS[2], Mats ANDRE[2], Ivan ZAITSEV[1], V. OLSHEVSKY[3], Stefano MARKIDIS[3], Giovanni LAPENTA[4]
[1]*Saint Petersburg State University,* [2]*Swedish Institute of Space Physics,* [3]*KTH Royal Institute of Technology,* [4]*KU Leuven*

ST18-D3-PM1-308-005 | ST18-A026

Electron Heating by Debye-scale Turbulence in Guide Field Reconnection

Yuri KHOTYAINTSEV[1#+], Andris VAIVADS[1], Love ALM[1], Konrad STEINVALL[1], Andreas JOHLANDER[1], Andrey DIVIN[2], Cecilia NORGREN[3], Wenya LI[4], Amy RAGER[5], Daniel GERSHMAN[5], Huishan FU[6], Kyoung-Joo HWANG[7], Per-Arne LINDQVIST[8], Robert ERGUN[9], Olivier LE CONTEL[10], Christopher RUSSELL[11]

[1]Swedish Institute of Space Physics, [2]Saint Petersburg State University, [3]University of Bergen, [4]State Key Laboratory of Space Weather, [5]NASA Goddard Space Flight Center, [6]Beihang University, [7]Southwest Research Institute, [8]KTH Royal Institute of Technology, [9]University of Colorado Boulder, [10]National Centre for Scientific Research/ Ecole Polytechnique, [11]University of California, Los Angeles

ST18-D3-PM1-308-006 | ST18-A011

Parallel Electron Heating by Tangential Discontinuity in Turbulent Magnetosheath

Yangyang LIU[1#+], Huishan FU[1], Chengming LIU[1], Zhe WANG[1], C. Philippe ESCOUBET[2], Kyoung-Joo HWANG[3], James BURCH[3], Barbara GILES[4]

[1]Beihang University, [2]European Space Agency, [3]Southwest Research Institute, [4]NASA Goddard Space Flight Center

ST18-D3-PM1-308-007 | ST18-A030

Universality of Fast Turbulent Magnetic Reconnection Under High Landquist Number

Li-Ping YANG[1#+], Hui LI[2], Fan GUO[2], Xiaocan LI[2], Shengtai LI[2], Lei ZHANG[3], Xueshang FENG[3]

[1]National Space Science Center, [2]Los Alamos National Laboratory, [3]Chinese Academy of Sciences

ST29 / Seven Years of Van Allen Probes and Two Years of Arase: New and Recent Results on Radiation Belt and Inner Magnetosphere Physics

Wed - 31 Jul | MR304

Time 13:30-15:30

Chair(s) Allison JAYNES, *The University of Iowa*

ST29-D3-PM1-304-001 | ST29-A007 (Invited)

Plasmaspheric EMIC Waves Excited Through Mode Conversion from Equatorial Noise Under Existence of M/Q=2 Ions

Yoshizumi MIYOSHI[1#+], Shoya MATSUDA[2], Koji NOMURA[1], Kunihiro KEIKA[3], Masafumi SHOJI[1], Naritoshi KITAMURA[3], Yoshiya KASAHARA[4], Ayako MATSUOKA[2], Iku SHINOHARA[2], Kazuo SHIOKAWA[1], Shinobu MACHIDA[1], Scott BOARDSEN[5], Richard HORNE[6], John WYGANT[7]

[1]Nagoya University, [2]Japan Aerospace Exploration Agency, [3]The University of Tokyo, [4]Kanazawa University, [5]University of Maryland, Baltimore, [6]British Antarctic Survey, [7]University of Minnesota

ST29-D3-PM1-304-002 | ST29-A006

Correlation Analysis of Lightning Whistlers Simultaneously Observed by Arase and Van Allen Probes

Yoshiya KASAHARA[1#+], Yuta OGAWA[1], Satoshi IKARASHI[1], Shoya MATSUDA[2], Yoshizumi MIYOSHI[3], Fuminori TSUCHIYA[4], Atsushi KUMAMOTO[4], Mitsuru HIKISHIMA[2], Ondrej SANTOLIK[5,6], Ivana KOLMASOVA[5,6], George HOSPODARSKY[7], Craig KLETZING[7], Chris COLPITTS[8], John WYGANT[8], Ayako MATSUOKA[2]

[1]Kanazawa University, [2]Japan Aerospace Exploration Agency, [3]Nagoya University, [4]Tohoku University, [5]Czech Academy of Sciences, [6]Charles University, [7]The University of Iowa, [8]University of Minnesota

ST29-D3-PM1-304-003 | ST29-A005

Relationship Between EMIC Waves and Storm-time Losses and Energizations of the Outer Radiation Belt

Maria USANOVA[1#+], Hong ZHAO[1]

[1]University of Colorado Boulder

ST29-D3-PM1-304-004 | ST29-A003 (Invited)

Understanding the Radiation Belt Electron Scattering Effects of Plasmaspheric Hiss and Magnetosonic Waves

Binbin NI[1#+]

[1]Wuhan University

ST29-D3-PM1-304-005 | ST29-A009

A Four-belt Structure in Earth's Van Allen Belts

Allison JAYNES[1#+], Connor POLLOCK[1], Daniel BAKER[2], Xinlin LI[2], Hong ZHAO[2], Shri KANEKAL[3]

[1]The University of Iowa, [2]University of Colorado Boulder, [3]NASA Goddard Space Flight Center

ST29-D3-PM1-304-006 | ST29-A001

On the Structure of the Radiation Belts During Quiet Times

Jean-Francois RIPOLL[1], Drew TURNER[2#+]

[1]French Alternative Energies and Atomic Energy Commission, [2]The Aerospace Corporation

SE22 / Emerging Trends in Ore Deposit Studies in the Asia Oceania Region

Wed - 31 Jul | MR303

Time 13:30-15:30

Chair(s) Chun-Kit LAI, *Universiti Brunei Darussalam*
Jillian Aira GABO-RATIO, *University of the Philippines Diliman*

SE22-D3-PM1-303-001 | SE22-A025 (Invited)

Copper Deposits of Myanmar and Their Exploration Potentials

Khin ZAW[1], Ye Myint SWE[2], Tin Aung MYINT[3#+]

[1]University of Tasmania, [2]Department of Geological Survey and Mineral Exploration, [3]Mandalay University

SE22-D3-PM1-303-002 | SE22-A017 (Invited)

The Occurrences of Porphyry Copper-gold Prospects Along Central to Eastern Segment of Neogene Java Volcanic Arc, Indonesia: An Implication to the Future Precious and Basemetals Exploration in the Region

Arifudin IDRUS[1#+], Sutarto SUTARTO[2], Trifatama RAHMALIA[3], Dian Yesy FATIMAH[4], Chun-Kit LAI[5]

[1]Gadjah Mada University, [2]Universitas Pembangunan Nasional Veteran Yogyakarta, [3]STTNas Yogyakarta, [4]Universitas Gadjah Mada Yogyakarta, [5]Universiti Brunei Darussalam

SE22-D3-PM1-303-003 | SE22-A003

The Kalimantan Gold Belt: Geology and Metallogenic Perspectives

Chun-Kit LAI[1#+], Basilios TSIKOURAS[1], Huayong CHEN[2], Arifudin IDRUS[3], Maria Ines Rosana BALANGUE-TARRIELA[4], Mega Fatimah ROSANA[5], Lejun ZHANG[6], Utreck RUMBIAK[5], Sebastien MEFFRE[6]

[1]Universiti Brunei Darussalam, [2]Chinese Academy of Sciences, [3]Gadjah Mada University, [4]University of the Philippines Diliman, [5]Padjadjaran University, [6]University of Tasmania

SE22-D3-PM1-303-004 | SE22-A008

Petrology and Mineral Chemistry of Igneous Host Rocks in Suyoc, Mankayan Mineral District, Philippines
Jillian Aira GABO-RATIO[1#+], Karl JABAGAT[1], Omar SOBERANO[1], Karlo QUEAÑO[2], Betchaida PAYOT[1], Gabriel Theophilus VALERA[1], Juan Miguel GUOTANA[1], Barbie Ross VILLAPLAZA[1], Graciano YUMUL, JR.[3,4]
[1]University of the Philippines Diliman, [2]Ateneo de Manila University, [3]Monte Oro Resources & Energy, Inc., [4]Apex Mining Co. Inc.

SE22-D3-PM1-303-005 | SE22-A023

Transition of Hydrothermal System Related with Skarn Evolution at the DMLZ Cu-Au Deposit, Ertsberg District, Papua, Indonesia
Kotaro YONEZU[1#+], Shota NAKAO[1], Thomas TINDELL[1], Benny BENSAMAN[2], Mega Fatimah ROSANA[2]
[1]Kyushu University, [2]Padjadjaran University

SE22-D3-PM1-303-006 | SE22-A011

The Geochemistry, Mineralization and Fluid Inclusion Study of Bayan-Uul Porphyry Cu-Au-Mo Deposit, Central Mongolia
Bolor-Erdene BILEGSAIKHAN[1#+], Kotaro YONEZU[1], Akira IMAI[1], Thomas TINDELL[1], Jargalan SEREENEN[2]
[1]Kyushu University, [2]Mongolian University Science of Technology

SE22-D3-PM1-303-007 | SE22-A018

The Metamorphic Rock-hosted Orogenic Gold Mineralization in Eastern Indonesia: Their Key Features and Significances for Gold Exploration
Arifudin IDRUS[1#+], Ernowo HARJANTO[2], Sukmandaru PRIHATMOKO[3], Franz Micahel MEYER[4], Chun-Kit LAI[5]
[1]Gadjah Mada University, [2]Geological Agency of Indonesia, [3]PT. SJR-Pama Group, [4]RWTH Aachen University, [5]Universiti Brunei Darussalam

SE22-D3-PM1-303-008 | SE22-A020

Paleomagnetic Age Dating of the Grum Zn-Pb-Ag Deposit, Canada
Kazuo KAWASAKI[1#+], David SYMONS[2]
[1]University of Toyama, [2]University of Windsor

HS13 / Urban Water-Related Problems

Wed - 31 Jul | MR330

Time 13:30-15:30
Chair(s) Akira KAWAMURA, *Tokyo Metropolitan University*
Kenichiro KOBAYASHI, *Kobe University*

HS13-D3-PM1-330-001 | HS13-A011 (Invited)

Development of Water-related Risk Index Using Earth Observation Data
Yoshiyuki IMAMURA[1#+]
[1]National Institute for Land and Infrastructure Management (NILIM)

HS13-D3-PM1-330-002 | HS13-A022 (Invited)

Application of a Large Ensemble Climate Simulation for Flood Risk Assessment of Urban Infrastructures
Satoshi WATANABE[1#+], Takaya ONODERA[1], Ryota ARAI[1], Koji IKEUCHI[1]
[1]The University of Tokyo

HS13-D3-PM1-330-003 | HS13-A003

Risk Evaluation of Compound Disaster by Storm Surge and Flood in Lowland Areas of Japan
So KAZAMA[1#+]
[1]Tohoku University

HS13-D3-PM1-330-004 | HS13-A025

Evaluation of Satellite DEMs on Selected Urban Settings: Comparison with High Resolution Data for Urban Flood Inundation Modeling
Anjaneyulu AKKIMI[1#+], Subashisa DUTTA[1]
[1]Indian Institute of Technology Guwahati

HS13-D3-PM1-330-005 | HS13-A026

Evaluating Appropriateness of Sewerage Facilities Design Rainfall Using Observed Rainfall
Byeong Wook YU[1+], Seung WOO[1], Deg-Hyo BAE[1#]
[1]Sejong University

HS13-D3-PM1-330-006 | HS13-A029

Understanding the Geospatial Structure of Flood Hazard: Point Based and Probabilistic Analysis of Yoshino River Basin, Japan
Masafumi YAMADA[1#+], Takeyoshi CHIBANA[2], Satoshi WATANABE[2]
[1]Disaster Prevention Research Institute, Kyoto University, [2]The University of Tokyo

HS13-D3-PM1-330-007 | HS13-A030

Monitoring of Water Level in Sewer System in Kasugai City and Verification of Analysis Model of Inundation Due to Heavy Rainfall
Masataka MURASE[1#+], Makoto TAKEDA[1], Takuya YAGAMI[2], Toshihiko TAKAHASHI[3]
[1]Chubu University, [2]CTI Engineering Co., Ltd., [3]Kajima Information Communication Technology Co., Ltd.

HS13-D3-PM1-330-008 | HS13-A032 (Invited)

Field Survey on Changes in Bottom Sediments Before and After a Flash Flood in a Tidal Reach of an Urban River
Hitoshi MIYAMOTO[1#+], Atsushi OSHIMI[2]
[1]Shibaura Institute of Technology, [2]Nippon Koei Co., Ltd.

HS11 / Hydroinformatics

Wed - 31 Jul | MR329

Time 13:30-15:30
Chair(s) Gwo-Fong LIN, *National Taiwan University*
Jing HUANG, *Hohai University*

HS11-D3-PM1-329-001 | HS11-A015

Flow Forecasting Using a Soft Computing Technique
Mohammad ASHRAFI[1#+], Lloyd CHUA[2], Chai QUEK[1]
[1]Nanyang Technological University, [2]Deakin University

HS11-D3-PM1-329-002 | HS11-A007

Study of Daily Crop Transpiration: Comparison of Random Forests and Support Vector Regression
Han CHEN[1#+], Jeanne Jinhui HUANG[1]
[1]Nankai University

HS11-D3-PM1-329-003 | HS11-A014

Efficient Parallel Surrogate Algorithm and Frame Work for Optimization of Parameter Estimation for Delft3D Lake Water Quality Models in Tropics
Wei XIA[1#+], Christine SHOEMAKER[1], Taimoor AKHTAR[1]
[1]National University of Singapore

HS11-D3-PM1-329-004 | HS11-A018

Efficient Optimal Calibration of Large Lake Hydrodynamic Models with Parallel DYCORS Software
Christine SHOEMAKER[1#+], Wei XIA[1], Taimoor AKHTAR[1], Manh Tuan NGUYEN[2]
[1]National University of Singapore, [2]Public Utilities Board

HS11-D3-PM1-329-005 | HS11-A019

Hydrological Modeling in the Era of Big Data: Opportunities and Challenges
Yi ZHENG[1#+], Shijie JIANG[1]
[1]Southern University of Science and Technology

HS11-D3-PM1-329-006 | HS11-A021

The Dynamically Dimensioned Evolutionary Search (DDES) Algorithm for Parallel Parameter Estimation of Expensive Watershed Models
Taimoor AKHTAR[1#+], Christine SHOEMAKER[1]
[1]National University of Singapore

HS27 / Evapotranspiration Estimation from Plot to Global Scale Using Instruments, Models and Remote Sensing

Wed - 31 Jul | MR328

Time 13:30-15:30
Chair(s) Ke ZHANG, *Hohai University*
Xuan YU, *Sun Yat-sen University*

HS27-D3-PM1-328-001 | HS27-A002 (Invited)

Mapping Evapotranspiration from Plot to Global Scales with a Coupled Process Model Forced with Multiple Satellite Remote Sensing Datasets
Youngryel RYU[1#+]
[1]Seoul National University

HS27-D3-PM1-328-002 | HS27-A004 (Invited)

A Non-gradient Model of Evapotranspiration over Land Surfaces
Jingfeng WANG[1#+], Yao TANG[1]
[1]Georgia Institute of Technology

HS27-D3-PM1-328-003 | HS27-A008

Understanding the Impact of Landscape Heterogeneity and Human Activities on Urban Evaporation by Remote Sensing: A Case Study in Shanghai
Jingjing WANG[1], Hongkai GAO[1#+]
[1]East China Normal University

HS27-D3-PM1-328-004 | HS27-A005

A Satellite-derived Multidecadal Record of Global Land Actual Evapotranspiration
Ke ZHANG[1#+]
[1]Hohai University

HS27-D3-PM1-328-005 | HS27-A011

Performance of 12 Reference Evapotranspiration Estimation Methods Compared with the Penman–Monteith Method and the Potential Influences in Northeast China
Yuyan ZHOU[1#+], Fan LU[1], Xinyi SONG[1]
[1]China Institute of Water Resources and Hydropower Research

HS27-D3-PM1-328-006 | HS27-A009

Consistent Accessibility of Satellite-based Evapotranspiration Estimates in Himalayan Catchments
Suman Kumar PADHEE[1#+], Subashisa DUTTA[1]
[1]Indian Institute of Technology Guwahati

PS16 / Microwave and Infrared Remote Sensing of Solar System Objects

Wed - 31 Jul | MR310

Time 13:30-15:30
Chair(s) Paul HARTOGH, *Max Planck Institute for Solar System Research*
Scott BOLTON, *Southwest Research Institute*

PS16-D3-PM1-310-001 | PS16-A024

Spatially-resolved Submillimeter Spectral Observations of Europa
Yi-Jehng KUAN[1#+], Chien-Hsun LI[2], Wei-Ling TSENG[1], Hsiang-Wen HSU[3], Yo-Ling CHUANG[1]
[1]National Taiwan Normal University, [2]National Taiwan University, [3]University of Colorado Boulder

PS16-D3-PM1-310-002 | PS16-A001 (Invited)

Unique Infrared and Microwave Observations of Jupiter's Planetary-scale Equatorial Disturbance
Glenn ORTON[1#+], Thomas MOMARY[1], James SINCLAIR[1], Steve LEVIN[1], Cheng LI[1], Zhimeng ZHANG[1], Shannon BROWN[1], Michael WONG[2], Arrate ANTUNANO[3], Leigh FLETCHER[3], Nahid CHOWDHURY[3], Thomas STALLARD[3], Henrik MELIN[3], Thomas GREATHOUSE[4], Rohini GILES[4], Gordon BJORAKER[5], Julie RATHBUN[6], Takuya FUJIYOSHI[7]
[1]Jet Propulsion Laboratory, California Institute of Technology, [2]University of California, Bekeley, [3]University of Leicester, [4]Southwest Research Institute, [5]NASA Goddard Space Flight Center, [6]Planetary Science Institute, [7]National Astronomical Observatory of Japan

PS16-D3-PM1-310-003 | PS16-A004

The Submillimetre Wave Instrument (SWI) on Juice After the Instrument Critical Design Review
Paul HARTOGH[1#+]
[1]Max Planck Institute for Solar System Research

PS16-D3-PM1-310-004 | PS16-A007

HCN Submillimetre Remote Sensing of Titan's Atmosphere with the APEX and IRAM 30m Telescopes
Miriam RENGEL[1,2#+], Denis SHULYAK[1], Paul HARTOGH[1], Hideo SAGAWA[3], Raphael MORENO[4], Christopher JARCHOW[1]
[1]Max Planck Institute for Solar System Research, [2]European Space Astronomy Centre, [3]Kyoto Sangyo University, [4]Paris Observatory

PS16-D3-PM1-310-005 | PS16-A008 (Invited)

The D/H Ratio of Water Throughout the Solar System
J. Hunter WAITE, JR.[1#+], Kelly MILLER[1], Chris GLEIN[1]
[1]Southwest Research Institute

PS16-D3-PM1-310-006 | PS16-A026

Terahertz Explorer for O2 and H2O Observation in the Mars Atmosphere
Yasuko KASAI[1#+]
[1]*National Institute of Information and Communications Technology*

AS07 / Origin, Evolution, and Distribution of Atmospheric Pollutions and Their Impact on Ecosystem in Eastern China

Wed - 31 Jul | MR311

Time 13:30-15:30

Chair(s) Xuexi TIE, *National Center for Atmospheric Research*
Jianming XU, *Yangtze River Delta Center for Environmental Meteorology Prediction and Warning*

AS07-D3-PM1-311-001 | AS07-A024

As PM2.5 Falls, O3 Rises in Bohai Economic Rim of China
Guohui LI[1#+], Naifang BEI[2], Bo HU[1]
[1]*Chinese Academy of Sciences,* [2]*Xi'an Jiaotong University*

AS07-D3-PM1-311-002 | AS07-A001 (Invited)

Mixing-layer Transport Flux of Particulate Matters in Beijing, China
Guiqian TANG[1#+]
[1]*Chinese Academy of Sciences*

AS07-D3-PM1-311-003 | AS07-A012

The Chemical Effects on the Summertime Ozone in the Upper Troposphere and Lower Stratosphere over the Tibetan Plateau and the South Asian Monsoon Region
Yixuan GU[1+], Hong LIAO[2#], Jianming XU[1]
[1]*Yangtze River Delta Center for Environmental Meteorology Prediction and Warning,* [2]*Nanjing University of Information Science & Technology*

AS07-D3-PM1-311-004 | AS07-A020

Role of Climate Anomalies on Decadal Variation in the Occurrence of Wintertime Haze in YRD Region
Jianming XU[1#+]
[1]*Yangtze River Delta Center for Environmental Meteorology Prediction and Warning*

SE09 / Active Volcanic Processes from the Mantle to the Atmosphere: Multidisciplinary Approaches to Monitoring, Hazards, and Impacts

Wed - 31 Jul | MR327

Time 13:30-15:30

Chair(s) Florian M. SCHWANDNER, *Jet Propulsion Laboratory, California Institute of Technology*
Estu KRISWATI, *Center for Volcanology and Geological Hazard Mitigation*

SE09-D3-PM1-327-001 | SE09-A011 (Invited)

Volcanic Legends and Their Impact on Preparedness
Isaac KERLOW[1#+]
[1]*Earth Observatory of Sinagpore*

SE09-D3-PM1-327-002 | SE09-A005

Above-canopy Autonomous Drone Detection of Elevated CO2 Gradients from Volcanic Gas Seeps in a Tropical Rainforest
Florian M. SCHWANDNER[1,2#+], Jack ELSTON[3], Jorge Andres DIAZ[4], Maciej STACHURA[3], Ernesto CORRALES[4], Joshua FROMM[3], David PIERI[1], Joshua B. FISHER[1], Thomas A. YOUMANS[1], Charles MILLER[1], Ryan P. PAVLICK[1]
[1]*Jet Propulsion Laboratory, California Institute of Technology,* [2]*University of California, Los Angeles,* [3]*Black Swift Technologies LLC,* [4]*National University of Costa Rica*

SE09-D3-PM1-327-003 | SE09-A013

Characterizing the Relative Magma Viscosity of Raung Volcano Using Crystal Size and Shape Analysis: Implication to Lava Travel Distance and Interval of Eruption
Firman SAUQI[1#+], Mirzam ABDURRACHMAN[1], Idham Andri KURNIAWAN[1]
[1]*Bandung Institute of Technology*

SE09-D3-PM1-327-004 | SE09-A002

Modeling the Formation of Volcanic Smoke Rings
Fabio PULVIRENTI[1#+], Simona SCOLLO[2], Carmelo FERLITO[3], Florian M. SCHWANDNER[1,4]
[1]*Jet Propulsion Laboratory, California Institute of Technology,* [2]*National Institute of Geophysics and Volcanology,* [3]*University of Catania,* [4]*Gas Monitoring Solutions*

SE09-D3-PM1-327-005 | SE09-A009 (Invited)

Status of Ash Cloud Detectability in Southeast Asia Using Long-range Infrasound
Dorianne TAILPIED[1#], Benoit TAISNE[1+], Anna PERTTU[1]
[1]*Nanyang Technological University*

SE09-D3-PM1-327-006 | SE09-A006 (Invited)

Plume Spectroscopy: The Application of Imaging Spectroscopy to Map the Composition of Heterogeneous Volcanic Plumes
Vincent REALMUTO[1#+], Paulo PENTEADO[1], Florian M. SCHWANDNER[1,2]
[1]*Jet Propulsion Laboratory, California Institute of Technology,* [2]*Gas Monitoring Solutions*

OS02 / Tropical Climate Variability, Modelling, Prediction, and Application

Wed - 31 Jul | MR302

Time 13:30-15:30

Chair(s) Jing-Jia LUO, *Nanjing University of Information Science & Technology*
Swadhin BEHERA, *Japan Agency for Marine-Earth Science and Technology*

OS02-D3-PM1-302-001 | OS02-A016 (Invited)

Extreme Convective El Nino Events are Less Coinciding with Extreme Warm El Nino Events Under Warming Climate
Guojian WANG[1#+], Wenju CAI[1,2]
[1]*Commonwealth Scientific and Industrial Research Organisation,* [2]*Ocean University of China and Qingdao National Laboratory for Marine Science and Technology*

OS02-D3-PM1-302-002 | OS02-A005 (Invited)

Westerly Wind Burst (WWB)/Easterly Wind Surge (EWS)-like Stochastic Forcing and the Effects on ENSO Prediction by the SINTEX-F System
Takeshi DOI[1#+], Toshio YAMAGATA[1]
[1]*Japan Agency for Marine-Earth Science and Technology*

OS02-D3-PM1-302-003 | OS02-A009 (Invited)

Contrasting the Skills and Biases of Deterministic Predictions for the Two Types of El Nino

Fei ZHENG[1#+], Jin-Yi YU[2]
[1]*Chinese Academy of Sciences,* [2]*University of California, Irvine*

OS02-D3-PM1-302-004 | OS02-A021

The Challenge in Estimation, Simulation and Prediction of the Long-term Trend in Hydroclimate

June-Yi LEE[1#+]
[1]*Pusan National University*

OS02-D3-PM1-302-005 | OS02-A026

Towards Understanding the Suppressed ENSO Activity During Mid-holocene in PMIP2 and PMIP3 Simulations

Lin CHEN[1#+], Weipeng ZHENG[2], Pascale BRACONNOT[3,4]
[1]*Nanjing University of Information Science & Technology,* [2]*Chinese Academy of Sciences,* [3]*Pierre Simon Laplace Institute,* [4]*Université Paris-Saclay*

OS02-D3-PM1-302-006 | OS02-A022

Warming of Subtropical Eastern North Pacific SST and its Possible Effects

Chi-Cherng HONG[1#+], Yi-Kai WU[2]
[1]*University of Taipei,* [2]*National Taiwan Normal University*

OS02-D3-PM1-302-007 | OS02-A023

Westward Wind Changes over the Tropical and Mid-latitude Pacific Driven by the Tropical Atlantic and the Indian Ocean SST Forcing

Xichen LI[1#+]
[1]*Chinese Academy of Sciences*

OS02-D3-PM1-302-008 | OS02-A014

Diversity in the Representation of Large-scale Circulation Associated with Enso-indian Summer Monsoon Teleconnections in CMIP5 Models

Dandi RAMU[1#+], Jasti CHOWARY[1], Suryachandra Rao ANGULURI[1], Ramakrishna S. S. V. S[2], Odury BHANUKUMAR[2]
[1]*Indian Institute of Tropical Meteorology,* [2]*Andhra University*

OS09 / Atmospheric and Oceanic Forcing on Biogeochemistry in the North Pacific Subtropical Gyre
OS19 / Artificial Intelligence (AI) Oceanography

Wed - 31 Jul | MR301

Time 13:30-15:30

Chair(s) Wee CHEAH, *University of Malaya*
Chun Hoe CHOW, *National Taiwan Ocean University*
Changming DONG, *Nanjing University of Information Science & Technology*
Bin ZOU, *National Satellite Ocean Application Service*

OS09-D3-PM1-301-001 | OS09-A002

Biogeochemical Responses of Eddies in the Northern South China Sea

Yung-Yen SHIH[1#+]
[1]*Republic of China Naval Academy*

OS09-D3-PM1-301-002 | OS09-A003

Remote Impact on Decadal Variability of Nutrients and Biomass in the Kuroshio Extension

Pengfei LIN[1], Jinfeng MA[1#+], Fei CHAI[2]
[1]*Chinese Academy of Sciences,* [2]*University of Maine*

OS09-D3-PM1-301-003 | OS09-A004

Anomalous Wind Triggered the Largest Phytoplankton Bloom in the Oligotrophic North Pacific Subtropical Gyre

Chun Hoe CHOW[1#+], Wee CHEAH[2], Jen-Hua TAI[3]
[1]*National Taiwan Ocean University,* [2]*University of Malaya,* [3]*Academia Sinica*

OS19-D3-PM1-301-004 | OS19-A009 (Invited)

Improving Ocean Color Data Coverage Through Machine Learning

Shuangling CHEN[1#+], Chuanmin HU[2], Brian BARNES[2], Yuyuan XIE[3], Gong LIN[3], Zhongfeng QIU[4]
[1]*Ministry of Natural Resources,* [2]*University of South Florida,* [3]*Xiamen University,* [4]*Nanjing University of Information Science & Technology*

OS19-D3-PM1-301-005 | OS19-A008

Identification of Oceanic Eddies Based on the Pyramid Scene Parsing Network

Guangjun XU[1#+], Changming DONG[2,3], Cheng CHENG[4], Wenxian YANG[4], Lingmei KONG[4], Wenhong XIE[2]
[1]*Guangdong Ocean University,* [2]*Nanjing University of Information Science & Technology,* [3]*University of California, Los Angeles,* [4]*Univer*

SS03 / Mineral Desert Dust

Wed - 31 Jul | Nicoll 1

Time 13:30-15:30

Chair(s) Sang-Woo KIM, *Seoul National University*

SS03-D3-PM1-Nicoll 1-001 | SS03-A001 (Invited)

AD-Net, a Lidar Network for Observation of Three Dimensional Distribution of Asian Dust Particles

Atsushi SHIMIZU[1#+], Tomoaki NISHIZAWA[1], Yoshitaka JIN[1], Nobuo SUGIMOTO[1]
[1]*National Institute for Environmental Studies*

SS03-D3-PM1-Nicoll 1-002 | SS03-A002 (Invited)

Following the Dust: Satellite Perspectives of Dust Sources, Transport, Deposition, and Impacts

Hongbin YU[1#+]
[1]*NASA Goddard Space Flight Center*

SS03-D3-PM1-Nicoll 1-003 | SS03-A003 (Invited)

Advancing the Capabilities to Predict the Atmospheric Burdens of Dust and its Impacts on Air Quality, Weather and More

Gregory CARMICHAEL[1#+], Meng GAO[2], Pablo SAIDE[3], Gonzalo FERRADA[1], Jun WANG[1], Sarika KULKARNI[4], Gufran BEIG[5], Alexander BAKLANOV [6]
[1]*The University of Iowa,* [2]*Harvard University,* [3]*University of California, Los Angeles,* [4]*California Air Resources Board,* [5]*Indian Institute of Tropical Meteorology,* [6]*World Meteorological Organization*

ST26-PS17 / Future and Current Space Missions and Instrumentation for Space and Planetary Science

Wed - 31 Jul | MR309

Time 13:30-15:30
Chair(s) Andrew YAU, *University of Calgary*

ST26-PS17-D3-PM1-309-001 | ST26-PS17-A003

Science Objectives of the Solar-C_EUVST
Shinsuke IMADA[1#+]
[1]Nagoya University

ST26-PS17-D3-PM1-309-002 | ST26-PS17-A024

The Solar Magnetism Mission
Haosheng LIN[1#+], Maxim KRAMAR[1]
[1]University of Hawaii

ST26-PS17-D3-PM1-309-003 | ST26-PS17-A004 (Invited)

The Parker Solar Probe Mission: Status and Outlook
Nour E. RAOUAFI[1#+], Stuart BALE[2], Justin KASPER[3], David MCCOMAS[4], Russell HOWARD[5], Marco VELLI[6], Arik POSNER[7]
[1]The Johns Hopkins University Applied Physics Laboratory, [2]University of California, Berkeley, [3]University of Michigan, [4]Princeton University, [5]U.S. Naval Research Laboratory, [6]University of California, Los Angeles, [7]National Aeronautics and Space Administration

ST26-PS17-D3-PM1-309-004 | ST26-PS17-A012

CuSP: The Cubesat Mission for Studying Solar Particles
Mihir DESAI[1#+]
[1]Southwest Research Institute

ST26-PS17-D3-PM1-309-005 | ST26-PS17-A005 (Invited)

The Indian Aeronomy Satellite Mission – DISHA (Disturbed and Quiet Time Ionosphere-thermosphere System at High Altitudes)
Duggirala PALLAMRAJU[1#+], Dibyendu CHAKRABARTY[1], Ashish MISHRA[2], Smitha THAMPI[3], Tirtha Prathim DAS[4], C VINEETH[3], Tarun Kumar PANT[3], Raj Kumar CHOUDHARY[3], Sumanta SARKHEL[5], Shyama NARENDRANATH[6], Anil BHARDWAJ[1]
[1]Physical Research Laboratory, [2]Space Applications Center, [3]Vikram Sarabhai Space Centre, [4]ISRO Headquarters, [5]Indian Institute of Technology, Roorkee, [6]UR Rao Satellite Center

ST26-PS17-D3-PM1-309-006 | ST26-PS17-A002 (Invited)

Ongoing and Future Space Science Mission of KASI
Junga HWANG[1#+]
[1]Korea Astronomy and Space Science Institute

ST26-PS17-D3-PM1-309-007 | ST26-PS17-A006

Solar X-ray Monitor On-board Chandrayaan-2 Mission
Mithun N.P.S.[1#], Santosh VADAWALE[1], M. SHANMUGAM[1+], Arpit PATEL[1], Hitesh ADALJA[1], Tinkal LADIYA[1], Shiv Kumar GOYAL[1], Neeraj Kumar TIWARI[1], Nishant SINGH[1], Sushil KUMAR[1], Arup Kumar HAIT[2], Abhinandan KAPOOR[3], Suresh Kumar H.N.[3], Gaurav Dutta SAXENA[4], Kalpana ARVIND[4], Neeraj Kumar SATYA[3], Anil BHARDWAJ[1]
[1]Physical Research Laboratory, [2]Space Applications Centre, [3]U. R. Rao Satellite Centre, [4]Laboratory For Electro-Optics Systems

ST18 / Multi-scale Diagnosis of Magnetic Reconnection

Wed - 31 Jul | MR308

Time 16:00-18:00
Chair(s) Yuri KHOTYAINTSEV, *Swedish Institute of Space Physics*
Keizo FUJIMOTO, *Beihang University*

ST18-D3-PM2-308-001 | ST18-A028 (Invited)

The Role of Lower Hybrid Waves in Magnetic Reconnection
Daniel GRAHAM[1#+], Andris VAIVADS[1], Mats ANDRE[1], Cecilia NORGREN[2], James DRAKE[3], Per-Arne LINDQVIST[4], Olivier LE CONTEL[5], Robert ERGUN[6], Barbara GILES[7], Christopher RUSSELL[8], James BURCH[9], Roy B. TORBERT[9,10]
[1]Swedish Institute of Space Physics, [2]University of Bergen, [3]University of Maryland, [4]KTH Royal Institute of Technology, [5]National Centre for Scientific Research/ Ecole Polytechnique, [6]University of Colorado Boulder, [7]NASA Goddard Space Flight Center, [8]University of California, Los Angeles, [9]Southwest Research Institute, [10]University of New Hampshire

ST18-D3-PM2-308-002 | ST18-A024 (Invited)

Whistler Waves Driven by Field-aligned Crescent Electrons in the Near-earth Magnetotail Reconnection
Lei DAI[1#+], Ren YONG[1], Wen LI[2,3], Xin TAO[4], Chi WANG[1], Binbin TANG[1], Benoit LAVRAUD[5], James BURCH[6], Barbara GILES[7], Olivier LE CONTEL[8], Roy B. TORBERT[6,9], Chris RUSSELL[3], Robert STRANGEWAY[3], Robert ERGUN[10], Per-Arne LINDQVIST[11]
[1]Chinese Academy of Sciences, [2]Boston University, [3]University of California, Los Angeles, [4]University of Science and Technology of China, [5]National Centre for Scientific Research, [6]Southwest Research Institute, [7]NASA Goddard Space Flight Center, [8]National Centre for Scientific Research/ Ecole Polytechnique, [9]University of New Hampshire, [10]University of Colorado Boulder, [11]KTH Royal Institute of Technology

ST18-D3-PM2-308-003 | ST18-A020

A Long-lasting Auroral Bright Spot Around Magnetic North Pole: Is it the Evidence of Stable Magnetic Reconnection?
Qing-He ZHANG[1#+], Guo-Cheng SHEN[1], Yongliang ZHANG[2], Kjellmar OKSAVIK[3], Michael LOCKWOOD[4], Zanyang XING[1], Yu-Zhang MA[1]
[1]Shandong University, [2]The Johns Hopkins University Applied Physics Laboratory, [3]University of Bergen, [4]University of Reading

ST18-D3-PM2-308-004 | ST18-A018

Spectral and Imaging Observations of Magnetic Reconnection in a Solar Current Sheet
Mingde DING[1#+]
[1]Nanjing University

ST18-D3-PM2-308-005 | ST18-A009 (Invited)

Electron-scale Measurements of Dipolarization Front
Huishan FU[1#+], Chengming LIU[1], Yin XU[1]
[1]Beihang University

ST18-D3-PM2-308-006 | ST18-A015

Electron-scale Quadrants of the Hall Quadrupolar Structure Observed During Magnetic Reconnection
Rongsheng WANG[1#+], Rumi NAKAMURA[2], Quanming LU[1], Wolfgang BAUMJOHANN[2], Robert ERGUN[3], James BURCH[4]
[1]University of Science and Technology of China, [2]Austrian Academy of Sciences, [3]University of Colorado Boulder, [4]Southwest Research Institute

ST18-D3-PM2-308-007 | ST18-A027

Electron Sublayers and the Associated Magnetic Topologies in the Inner Low Latitude Boundary Layer

Xiangcheng DONG[1], Malcolm DUNLOP[1,2#+], Karlheinz TRATTNER[3], Tieyan WANG[2], Zuyin PU[4], Jinsong ZHAO[5], Jinbin CAO[1], Christopher RUSSELL[6], Barbara GILES[7]

[1]Beihang University, [2]Rutherford Appleton Laboratory, [3]University of Colorado Boulder, [4]Peking University, [5]Chinese Academy of Sciences, [6]University of California, Los Angeles, [7]NASA Goddard Space Flight Center

ST18-D3-PM2-308-008 | ST18-A013

Electron Distribution Functions Around a Reconnection X-line Resolved by the FOTE Method

Zhe WANG[1#+], Huishan FU[1], Chengming LIU[1], Yangyang LIU[1], Giulia COZZANI[2], Barbara GILES[3], Kyoung-Joo HWANG[4], James BURCH[4]

[1]Beihang University, [2]National Center for Scientific Research/ Ecole Polytechnique/ Pierre-and-Marie-Curie University, [3]NASA Goddard Space Flight Center, [4]Southwest Research Institute

ST11 / Radiation Belt Physics in the Sun-earth Connection Context

Wed - 31 Jul | MR304

Time 16:00-18:00

Chair(s) Binbin NI, *Wuhan University*
Xudong GU, *Wuhan University*

ST11-D3-PM2-304-001 | ST11-A015 (Invited)

Multi-MeV Electron Loss From the Radiation Belts

Yuri SHPRITS[1#+], Nikita ASEEV[2], Alexander DROZDOV[3]

[1]GFZ German Research Center for Geosciences, [2]GFZ German Research Centre for Geosciences, [3]University of California, Los Angeles

ST11-D3-PM2-304-002 | ST11-A005 (Invited)

Rapid Loss of Relativistic Electrons by EMIC Waves in the Outer Radiation Belt Observed by Arase, Van Allen Probes, and the PWING Ground Stations

Satoshi KURITA[1#+], Yoshizumi MIYOSHI[1], Kazuo SHIOKAWA[1], Nana HIGASHIO[2], Takefumi MITANI[2], Takeshi TAKASHIMA[2], Ayako MATSUOKA[2], Iku SHINOHARA[2], Craig KLETZING[3], Berhard BLAKE[4], Seth CLAUDEPIERRE[4], Martin CONNORS[5], Shin-Ichiro OYAMA[6], Tsutomu NAGATSUMA[7], Kaori SAKAGUCHI[7], Dmitry BAISHEV[8], Yuichi OTSUKA[1]

[1]Nagoya University, [2]Japan Aerospace Exploration Agency, [3]The University of Iowa, [4]The Aerospace Corporation, [5]Athabasca University, [6]Institute for Space-Earth Environmental Research, [7]National Institute of Information and Communications Technology, [8]Siberian Branch of the Russian Academy of Sciences

ST11-D3-PM2-304-003 | ST11-A009

Hot Plasma Effects on the Scattering Loss of Radiation Belt Electrons by Plasmaspheric Hiss

Xing CAO[1+], Binbin NI[1#], Danny SUMMERS[2]

[1]Wuhan University, [2]Memorial University of Newfoundland

ST11-D3-PM2-304-004 | ST11-A002

Untangling Solar Wind Drivers of the Outer Radiation Belt with Information Theory

Simon WING[1#+], Jay JOHNSON[2]

[1]The Johns Hopkins University, [2]Andrews University

ST11-D3-PM2-304-005 | ST11-A001

The Energy-dependent Acceleration of Ultrarelativistic Electrons in the Radiation Belts

Hong ZHAO[1#+], Dan BAKER[1], Xinlin LI[1], Allison JAYNES[2], Shri KANEKAL[3]

[1]University of Colorado Boulder, [2]The University of Iowa, [3]NASA Goddard Space Flight Center

ST11-D3-PM2-304-006 | ST11-A003

On the Initial Enhancement of Energetic Electrons and the Innermost Plasmapause Locations: During CIR-driven Storm Periods and Non-storm Periods

Leng Ying KHOO[1#+], Xinlin LI[1], Hong ZHAO[1], Xiangning CHU[2], Zheng XIANG[3], Kun ZHANG[1]

[1]University of Colorado Boulder, [2]University of California, Los Angeles, [3]Wuhan University

ST11-D3-PM2-304-007 | ST11-A008

Imaging Energetic Electron Spectrometers Onboard Chinese Navigation Satellite in the Inclined GEO and MEO Orbits

Zou HONG[1#+], Yuguang YE[1], Qiugang ZONG[1]

[1]Peking University

ST11-D3-PM2-304-008 | ST11-A004

Properties of Solar Energetic Particle Events in the Radiation Belts as Observed by Van Allen Probes

Rachael FILWETT[1#], Allison JAYNES[1+]

[1]The University of Iowa

SE22 / Emerging Trends in Ore Deposit Studies in the Asia Oceania Region

Wed - 31 Jul | MR303

Time 16:00-18:00

Chair(s) Kotaro YONEZU, *Kyushu University*
Betchaida PAYOT, *University of the Philippines Diliman*

SE22-D3-PM2-303-001 | SE22-A010

Mineral Chemistry of Host Rocks in the Sangilo Epithermal Deposit, Baguio Mineral District Philippines: Probe to Sub-porphyry Magmatic Processes and Conditions

Karl JABAGAT[1#+], Jillian Aira GABO-RATIO[1], Jessamin Belle DEMEGILLO[1], Karlo QUEAÑO[2], Eric ANDAL[3], Carla DIMALANTA[1], Graciano YUMUL, JR.[4,5]

[1]University of the Philippines Diliman, [2]Ateneo de Manila University, [3]Itogon-Suyoc Resources Inc., [4]Monte Oro Resources & Energy, Inc., [5]Apex Mining Co. Inc.

SE22-D3-PM2-303-002 | SE22-A015

Hypogene Acid Hydrothermal Alteration at the Sih-Huang-Ping and Huang-Shan Steaming Grounds, Tatun Volcanic Group, Taiwan

Mizuki FUJISAKI[1#+], Sachihiro TAGUCHI[2], Hitoshi CHIBA[3], Yi-Chia LU[4], Yu-Jie LIN[4], Chyi WANG[5], Sheng-Rong SONG[4], Po-Tsun LI[6], Guo-Teng HONG[6], Wei-Chia CHU[6], Chi-Hsuan CHEN[6], Jiin-Fa LEE[6], Chih-Hao YANG[7], Ming-Chien CHUNG[7], Chi-Wen YU[7], Kotaro YONEZU[1], Koichiro WATANABE[1]

[1]Kyushu University, [2]Fukuoka University, [3]Okayama University, [4]National Taiwan University, [5]National Taipei University of Technology, [6]Central Geological Survey, [7]Sinotech Engineering Consultants Ltd

SE22-D3-PM2-303-003 | SE22-A021

Initial Study of Copper-Gold Mineralization in MGI in the Grasberg Mine, Papua, Indonesia: Insight from Drill Core AM30-08H-05

Kanehiko KAWASAKI[1#+], Kotaro YONEZU[1], Reza AL FURQAN[2], Benny BENSAMAN[3], Mega Fatimah ROSANA[3]

[1]Kyushu University, [2]PT Freeport Indonesia, [3]Padjadjaran University

SE22-D3-PM2-303-004 | SE22-A027

Characteristics of Red and Yellow Jasper on Mineralisation Zone of Southern Java Mountainous Area, Yogyakarta, Indonesia

Kemala WIJAYANTI[1#+], Mega Fatimah ROSANA[1], Euis TINTIN YUNINGSIH[1]

[1]Padjadjaran University

SE22-D3-PM2-303-005 | SE22-A019

Mineralogy and Fluid Inclusion Studies of Sn-W Deposit of the Tagu Area, Myeik, Southern Myanmar

Kyaw Thu HTUN[1#+], Kotaro YONEZU[1], Aung Zaw MYINT[1], Akira IMAI[1], Thomas TINDELL[1], Koichiro WATANABE[1]

[1]Kyushu University

SE22-D3-PM2-303-006 | SE22-A022

Preliminary Quartz and Sphalerite Fluid Inclusion Microthermometry, Hakurei Site, Izena Hole

Yushi SEKIYA[1#+], Kotaro YONEZU[1], Thomas TINDELL[1], Junichiro ISHIBASHI[1], Tatsuo NOZAKI[2], Akira IMAI[1]

[1]Kyushu University, [2]Japan Agency for Marine-Earth Science and Technology

SE22-D3-PM2-303-007 | SE22-A007

Gold and Copper Mineralization Characteristics of the Ophiolite-hosted Malabeg Prospect in Cabangan, Zambales, Philippines

John Emmanuel FUNGO[1#+], Jillian Aira GABO-RATIO[2], Kotaro YONEZU[3], Karl JABAGAT[2], Omar SOBERANO[2]

[1]National Institute of Geological Sciences, [2]University of the Philippines Diliman, [3]Kyushu University

SE22-D3-PM2-303-008 | SE22-A024

Geology, Alteration and Mineralization of Lower Level of Grasberg Igneous Complex; It's Relation with Grasberg Porphyry Cu-Au Deposit

Benny BENSAMAN[1#+], Mega Fatimah ROSANA[1]

[1]Padjadjaran University

HS13 / Urban Water-Related Problems

Wed - 31 Jul | MR330

Time 16:00-18:00

Chair(s) Akira KAWAMURA, *Tokyo Metropolitan University*
Kei NAKAGAWA, *Nagasaki University*

HS13-D3-PM2-330-001 | HS13-A010

Modeling of eDNA in Rivers by a Lab Experiment

Akira MORITA[1#+], So KAZAMA[1]

[1]Tohoku University

HS13-D3-PM2-330-002 | HS13-A004

Spatial Characteristics of Groundwater Chemistry in Unzen, Nagasaki, Japan

Kei NAKAGAWA[1#+], Zhi Qiang YU[1], Hiroki AMANO[2], Ronny BERNDTSSON[3]

[1]Nagasaki University, [2]Tokai University, [3]Lund University

HS13-D3-PM2-330-003 | HS13-A016 (Invited)

Dynamics of Stream Environmental DNA Focusing on Transport, Bacteria and Particle Size

Kei NUKAZAWA[1#+], Kentaro AKAHOSHI[1], Yoshihiro SUZUKI[1]

[1]University of Miyazaki

HS13-D3-PM2-330-004 | HS13-A021 (Invited)

The 2016 Kumamoto Earthquake Effects on Groundwater Level Characteristics

Tsutomu ICHIKAWA[1], Kei NAKAGAWA[2#], Hiroki AMANO[1+], Ronny BERNDTSSON[3]

[1]Tokai University, [2]Nagasaki University, [3]Lund University

HS13-D3-PM2-330-005 | HS13-A023 (Invited)

A Proposal of Source Tracking of Fecal Pollution in Recreational Waters by Applying Pulsed-field Gel Electrophoresis (PFGE)

Yoshihiro SUZUKI[1#+], Takashi FURUKAWA[2], Kei NUKAZAWA[1]

[1]University of Miyazaki, [2]Kitasato University

HS13-D3-PM2-330-006 | HS13-A027 (Invited)

In-situ Fluorescence Sensors for Monitoring Riverine Dissolved Organic Matter in Bihar, India

Laura RICHARDS[1#+], Kieran KHAMIS[2], Stefan KRAUSE[2], Arun KUMAR[3], Neha PARASHAR[3], Sreedipta CHATTERJEE[4], Sidharth SUMAN[5], Prerona DAS[4], Sumant KUMAR[6], Ashok GHOSH[3], Abhijit MUKHERJEE[4], David HANNAH[2], Daren GOODDY[7], David POLYA[1]

[1]University of Manchester, [2]University of Birmingham, [3]Mahavir Cancer Sansthan and Research Centre, [4]Indian Institute of Technology Kharagpur, [5]Anugrah Narayan College Patna, [6]National Institute of Hydrology Roorkee, [7]British Geological Survey

HS13-D3-PM2-330-007 | HS13-A033 (Invited)

Considering Multi-level Governance of Groundwater – Through the Case Study of Nitrate-nitrogen Pollution in Shimabara City, Japan

Hironori HAMASAKI[1#+], Kei NAKAGAWA[1], Takashi WATANABE[1]

[1]Nagasaki University

HS23 / Approaches for Post-processing Meteorological and Hydrological Forecasts for Improved Predictions of High-impact Weather Conditions

Wed - 31 Jul | MR329

Time 16:00-18:00

Chair(s) Sanjeev Kumar JHA, *Indian Institute of Science Education and Research Bhopal*

HS23-D3-PM2-329-001 | HS23-A002

Quantification of Uncertainty in Weather Forecasting for Improved Agro-meteorological Services

Aadhityaa MOHANAVELU[1#+], Soundharajan BANKARU SWAMY[1], K.S. KASIVISWANATHAN[2]

[1]Amrita Vishwa Vidyapeetham, [2]Indian Institute of Technology Mandi

HS23-D3-PM2-329-002 | HS23-A001

Enhancement in Long-term Hydrologic Forecasting Accuracy Using the Bayes Theorem

Seung Beom SEO[1#], Young-Oh KIM[1+], Shinuk KANG[2], Gun Il CHUN[3], Woo Sung NAM[3]

[1]Seoul National University, [2]K-water Institute, [3]National Drought Information Analysis Center

HS23-D3-PM2-329-003 | HS23-A004

Bias Correction of Meteorological Variables for Avalanche Study in Indian Himalayas Region
Nibedita SAMAL[1], Shivani BADODIYA[1], Sanjeev Kumar JHA[1#+], Sudhanshu SHEKHAR[2]
[1]Indian Institute of Science Education and Research Bhopal, [2]Snow and Avalanche Study Establishment

HS23-D3-PM2-329-004 | HS23-A009

Dual Window Bias Correction for Runoff Projected by Super Ensemble Experiments
Satoshi WATANABE[1#+]
[1]The University of Tokyo

HS23-D3-PM2-329-005 | HS23-A006

Addressing Mismatch in Spatial Scales of WRF Output and Gridded Observation Data for Precipitation and Temperature in South Eastern Australia
Sanjeev Kumar JHA[1#+], Nibedita SAMAL[1]
[1]Indian Institute of Science Education and Research Bhopal

HS24 / Modeling of Hydrologic Processes at Catchment Scales in the Context of Climate Change

Wed - 31 Jul | MR328

Time 16:00-18:00
Chair(s) Van-Thanh-Van NGUYEN, *McGill University*

HS24-D3-PM2-328-001 | HS24-A005

Climate Change Impact Assessment on Urban Hydrologic Processes: Recent Advances and Shortcomings
Van-Thanh-Van NGUYEN[1#+]
[1]McGill University

HS24-D3-PM2-328-002 | HS24-A009

Impact of Climate Change on the Himachal Himalayas
Netrananda SAHU[1#+], Takahiro SAYAMA[2]
[1]University of Delhi, [2]Kyoto University

HS24-D3-PM2-328-003 | HS24-A004

Climate Change Impacts May Be Underestimated in Regulated River Basins: A Case Study in the Upper Mekong River Basin
Thanh Duc DANG[1#+], A.F.M. Kamal CHOWDHURY[1], Stefano GALELLI[1]
[1]Singapore University of Technology and Design

HS24-D3-PM2-328-004 | HS24-A008

A Three-source Attribution Framework and Application for Streamflow Change Affected by Climate Variability, Anthropogenic Climate and Basin Underlying Surface Change
Yanli LIU[1#+], Guoqing WANG[1], Jianyun ZHANG[1], Junliang JIN[1], Cuishan LIU[1]
[1]Nanjing Hydraulic Research Institute

HS24-D3-PM2-328-005 | HS24-A012

Mountainous River Health Assessment Using Fish-biotic Integrity Index and Environmental Factors Correlation Analysis
Han ZHAOFENG[1+], Ji CHEN[1#], Qian XU[1], Yi LU[1]
[1]The University of Hong Kong

HS24-D3-PM2-328-006 | HS24-A013

Applications of Macroinvertebrate Biotic Integrity Index in Assessing Lai Chi Wo River Water Quality
Han ZHAOFENG[1+], Ji CHEN[1#], Yi LU[1], Qian XU[1]
[1]The University of Hong Kong

HS24-D3-PM2-328-007 | HS24-A001

Integrated Surface- Subsurface Hydrological Modelling of a Humid Tropical River Basin
Anu PATIL[1], Sreelash KRISHNAN KUTTY[2#+], Varija K[1], Rajat KUMAR SHARMA[2]
[1]National Institute of Technology, [2]National Centre for Earth Science Studies

PS16 / Microwave and Infrared Remote Sensing of Solar System Objects

Wed - 31 Jul | MR310

Time 16:00-18:00
Chair(s) Yi-Jehng KUAN, *National Taiwan Normal University*
Yasuko KASAI, *National Institute of Information and Communications Technology*

PS16-D3-PM2-310-001 | PS16-A018

Crosslink Occultations for Probing the Planetary Atmosphere and Ionosphere of Mars
Silvia TELLMANN[1#+], Martin PÄTZOLD[1], Bernd HÄUSLER[2], Michael K. BIRD[3], David P. HINSON[4], Tom ANDERT[2], Graciela GONZALEZ PEYTAVÍ[2], Sami ASMAR[5]
[1]Rhenish Institute for Environmental Research, [2]Universität der Bundeswehr München, [3]University of Bonn, [4]Stanford University, [5]Jet Propulsion Laboratory, California Institute of Technology

PS16-D3-PM2-310-002 | PS16-A019

Ground-based Observations of Magnetic Field Strength at Mesospheric Altitudes
Richard LARSSON[1#+], Paul HARTOGH[1], Borys DABROWSKI[1]
[1]Max Planck Institute for Solar System Research

PS16-D3-PM2-310-003 | PS16-A021

Planetary Spectrum Generator: An Accurate Online Radiative Transfer Suite for Atmospheres, Comets, Small Bodies and Exoplanets
Geronimo VILLANUEVA[1#+]
[1]NASA Goddard Space Flight Center

PS16-D3-PM2-310-004 | PS16-A006

Study on the Early Activity of Comet 67P/CG with 3D Modeling of the MIRO Observations
Yuhui ZHAO[1#+], Ladislav REZAC[2], Paul HARTOGH[2], Jianghui JI[1], Raphael MARSCHALL[3], Horst Uwe KELLER[2]
[1]Chinese Academy of Sciences, [2]Max Planck Institute for Solar System Research, [3]International Space Science Institute

PS16-D3-PM2-310-005 | PS16-A012

3D Analysis of Spatial Resolution of MIRO/Rosetta Observations at 67P/CG
Ladislav REZAC[1#+], Paul HARTOGH[1], Yuhui ZHAO[2], Jianghui JI[2], David MARSHALL[1]
[1]Max Planck Institute for Solar System Research, [2]Chinese Academy of Sciences

PS16-D3-PM2-310-006 | PS16-A014

The Far-ir Properties of a Large Sample of Asteroids in the Herschel-spire Catalogue of Serendipitous Solar System Observations

Mark KIDGER[1#+], Cristina ROMERO[2], Miriam RENGEL[1,3]
[1]*European Space Astronomy Centre,* [2]*Technische Universität Berlin,* [3]*Max Planck Institute for Solar System Research*

PS16-D3-PM2-310-007 | PS16-A025

Submillimeter Spectral Observations of Molecular Exospheres of the Ceres Icy World

Yo-Ling CHUANG[1#+], Yi-Jehng KUAN[1], Steven CHARNLEY[2], Ming-Chi CHUNG[1], Yu-Fu YEH[1]
[1]*National Taiwan Normal University,* [2]*NASA Goddard Space Flight Center*

AS07 / Origin, Evolution, and Distribution of Atmospheric Pollutions and Their Impact on Ecosystem in Eastern China

Wed - 31 Jul | MR311

Time 16:00-18:00
Chair(s) Guohui LI, *Chinese Academy of Sciences*

AS07-D3-PM2-311-001 | AS07-A002 (Invited)

Characteristics of O3 and PM2.5 in the Pearl River Delta Region and its Relationship with Meteorological Factors

Xuejiao DENG[1#+]
[1]*China Meteorological Administration*

AS07-D3-PM2-311-002 | AS07-A004 (Invited)

Numerical Forecast for Air Quality over Eastern China

Guangqiang ZHOU[1#+]
[1]*Shanghai Meteorological Service*

AS07-D3-PM2-311-003 | AS07-A013

Impact of the 2015 El Nino Event on Winter Air Quality in China

Luyu CHANG[1+], Jianming XU[1#], Xuexi TIE[2], Jianbin WU[3]
[1]*Yangtze River Delta Center for Environmental Meteorology Prediction and Warning,* [2]*National Center for Atmospheric Research,* [3]*Clear Technology Co. Ltd.*

AS07-D3-PM2-311-004 | AS07-A003

Spatial and Temporal Changes of SO2 Regimes over China in Recent Decade and the Driving Mechanism

Ting WANG[1#+], Pucai WANG[1], Nicolas THEYS[2], Dan TONG[3], Francois HENDRICK[2], Qiang ZHANG[3], Van Roozendael MICHEL[2]
[1]*Chinese Academy of Sciences,* [2]*Royal Belgian Institute for Space Aeronomy,* [3]*Tsinghua University*

AS07-D3-PM2-311-005 | AS07-A022

Effects of Stabilized Criegee Intermediates (sCI) on the Sulfate Formation by a Source-oriented WRF-CHEM Model: A Case Study During Summertime in the North China Plain (NCP)

Lang LIU[1+], Guohui LI[2#]
[1]*Institute of Earth Environment, Chinese Academy of Sciences,* [2]*Chinese Academy of Sciences*

IG19 / Volcanic Gas Surveillance: Applications to Monitoring and Hazard Mitigation

Wed - 31 Jul | MR327

Time 16:00-18:00
Chair(s) Philipson BANI, *The French Research Institute for Development*
Estu KRISWATI, *Center for Volcanology and Geological Hazard Mitigation*

IG19-D3-PM2-327-001 | IG19-A007

New Insight from Whole-rock Geochemistry and Seismic Tomography into Southwest Sector Collapse of Anak Krakatau Triggering Tsunami 2018

Mirzam ABDURRACHMAN[1#+], Sri WIDIYANTORO[1], Idham Andri KURNIAWAN[1], M. Nugraha KARTADINATA[2], Michael CASSIDY[3], Hendra GUNAWAN[2], Achmad Nazar ABRORY[4]
[1]*Bandung Institute of Technology,* [2]*Center for Volcanology and Geological Hazard Mitigation,* [3]*University of Oxford,* [4]*Institut Teknologi Bandung*

IG19-D3-PM2-327-002 | IG19-A006

Increase in Lava Discharge Rate of Anak Krakatau During Volcanic Unrest June – December 2018 Derived from MODIS Hotspot Data

Estu KRISWATI[1#+], Diego COPPOLA[2], Akhmad SOLIKHIN[1]
[1]*Center for Volcanology and Geological Hazard Mitigation,* [2]*Università degli Studi di Torino*

IG19-D3-PM2-327-003 | IG19-A008

Morphology Changes of Anak Krakatau Volcano Observed by High Temporal Resolution SAR Images

Agustan AGUSTAN[1#+], Estu KRISWATI[2]
[1]*Agency for the Assessment and Application of Technology,* [2]*Center for Volcanology and Geological Hazard Mitigation*

IG19-D3-PM2-327-004 | IG19-A002

Bromo Activity over the Last Decade

Hilma ALFIANTI[1#+], Philipson BANI[2], Sofyan PRIMULYANA[1], Mita MARLIA[1], Ugan SAING[1], Nia HAERANI[1], Kristianto KRISTIANTO[1], Devy Kamil SYAHBANA[1], Hendra GUNAWAN[1]
[1]*Center for Volcanology and Geological Hazard Mitigation,* [2]*The French Research Institute for Development*

IG19-D3-PM2-327-005 | IG19-A009

Volcanic Eruption Material Triggers Diatom Blooms in Lake Maninjau, Indonesia

Aan DIANTO[1+], Arianto SANTOSO[1#], Iwan RIDWANSYAH[1], Luki SUBEHI[1], Mudrik DARYONO[2], Katleen WILS[3], Danny NATAWIDJAJA[1], Marc DE BATIST[3]
[1]*Indonesian Institute of Sciences,* [2]*Indonesian Institute of Sciences - LIPI,* [3]*Ghent University*

OS02 / Tropical Climate Variability, Modelling, Prediction, and Application

Wed - 31 Jul | MR302

Time 16:00-18:00
Chair(s) June-Yi LEE, *Pusan National University*

OS02-D3-PM2-302-001 | OS02-A017 (Invited)

Stabilised Frequency of Extreme Positive Indian Ocean Dipole Under 1.5°C Warming
Wenju CAI[1,2#+], Lixin WU[3], Guojian WANG[2], Bolan GAN[3], Agus SANTOSO[2,4], Xiaopei LIN[3], Zhaohui CHEN[3,5], Fan JIA[6], Toshio YAMAGATA[7]
[1]Ocean University of China and Qingdao National Laboratory for Marine Science and Technology, [2]Commonwealth Scientific and Industrial Research Organisation, [3]Ocean University of China, [4]University of New South Wales, [5]Qingdao National Laboratory for Marine Science and Technology, [6]Chinese Academy of Sciences, [7]Japan Agency for Marine-Earth Science and Technology

OS02-D3-PM2-302-002 | OS02-A007 (Invited)

The Impact of Future Sea Level Rise on Extreme Water Levels in the Pearl River Delta
Svetlana JEVREJEVA[1#+], Michela DE DOMINICIS[1], Judith WOLF[1]
[1]National Oceanography Centre

OS02-D3-PM2-302-003 | OS02-A018 (Invited)

Variability of Sea Level and Upper-ocean Heat Content in the South Indian Ocean: Effects of Subtropical Indian Ocean Dipole and ENSO
Lei ZHANG[1#+], Weiqing HAN[1]
[1]University of Colorado Boulder

OS02-D3-PM2-302-004 | OS02-A024 (Invited)

Patterns of Tropical Sea Surface Temperature and Precipitation Responses to Extratropical Thermal Forcings: The Role of Clouds
Yen-Ting HWANG[1#+], Wei-Ting HSIAO[1], Sarah KANG[2]
[1]National Taiwan University, [2]Ulsan National Institute of Science and Technology

OS02-D3-PM2-302-005 | OS02-A003

The Impacts of Southern Tropical Indian Warming Following Strong El Nino Events
Zesheng CHEN[1+], Yan DU[1#], Zhiping WEN[2,3], Renguang WU[4], Shang-Ping XIE[5]
[1]Chinese Academy of Sciences, [2]Sun Yat-sen University, [3]Fudan University, [4]Zhejiang University, [5]University of California San Diego

OS02-D3-PM2-302-006 | OS02-A008

Tropical Oceanic Intraseasonal Variabilities Associated with Central Indian Ocean Mode
Ze MENG[1], Lei ZHOU[2#+], Raghu MURTUGUDDE[3], Qingxuan YANG[4], Kandaga PUJIANA[5]
[1]Second Institute of Oceanography, [2]Shanghai Jiao Tong University, [3]University of Maryland, [4]Ocean University of China, [5]NOAA Pacific Marine and Environmental Laboratory

OS02-D3-PM2-302-007 | OS02-A001

Wet-to-dry Shift over Southwest China in 1994 Tied to the Warming of Tropical Warm Pool
Lin WANG[1#+], Gang HUANG[1], Wen CHEN[1], Wen ZHOU[2], Weiqiang WANG[1]
[1]Chinese Academy of Sciences, [2]City University of Hong Kong

OS07 / Tropical Cyclone-Ocean Interactions

Wed - 31 Jul | MR301

Time 16:00-18:00
Chair(s) Chunzai WANG, *South China Sea Institute of Oceanology*

OS07-D3-PM2-301-001 | OS07-A004

ENSO and Tropical Cyclones – A Review
I-I LIN[1#+], Suzana CAMARGO[2], Christina PATRICOLA[3], Julien BOUCHAREL[4], Savin CHAND[5], Phil KLOTZBACH[6], Johnny CHAN[7], Bin WANG[4], Ping CHANG[8], Tim LI[4], Fei-Fei JIN[4,9]
[1]National Taiwan University, [2]Columbia University, [3]Lawrence Berkeley National Laboratory, [4]University of Hawaii, [5]Federation University, [6]Colorado State University, [7]City University of Hong Kong, [8]Texas A&M University, [9]Chinese Meteorological Agency

OS07-D3-PM2-301-002 | OS07-A012

Tropical Cyclone Intensity Response to Distribution of Warm Mesoscale Eddy
Guihua WANG[1#+], Jia SUN[2]
[1]Fudan University, [2]State Oceanic Administration

OS07-D3-PM2-301-003 | OS07-A005

Why are Hurricanes in the Atlantic and Pacific Linked?
Chunzai WANG[1#+]
[1]South China Sea Institute of Oceanology

OS07-D3-PM2-301-004 | OS07-A001

Upper Ocean Thermal Response to Tropical Cyclones
Han ZHANG[1#+], Dake CHEN[2]
[1]Ministry of Natural Resources, [2]State Oceanic Administration

OS07-D3-PM2-301-005 | OS07-A008

The Air-sea Interface Under Tropical Cyclones During Rapid Intensification
Alexander SOLOVIEV[1#+], Breanna VANDERPLOW[1], Cayla DEAN[1], Brian K. HAUS[2], Roger LUKAS[3]
[1]Nova Southeastern University, [2]University of Miami, [3]University of Hawaii

OS07-D3-PM2-301-006 | OS07-A013

The Impact of Summertime North Indian Ocean SST on Tropical Cyclone Genesis over the Western North Pacific
Jiayu ZHENG[1#+]
[1]Chinese Academy of Sciences

OS07-D3-PM2-301-007 | OS07-A009

The Role of Intraseasonal Oscillation in the Tropical Cyclone Activity in Bay of Bengal
Lei YANG[1#+], Dongxiao WANG[1]
[1]Chinese Academy of Sciences

OS07-D3-PM2-301-008 | OS07-A010

Improved Tropical Cyclone Intensity Forecasts by Assimilating Coastal Surface Currents
Ralf TOUMI[1#+], Yi LI[1], Luke PHILLIPSON[1]
[1]Imperial College London

AS11 / Exploration and Science of the Earth's Lower and Middle Atmosphere: Past, Present and Future Perspectives

Wed - 31 Jul | Nicoll 1

Time 16:00-18:00

Chair(s) Iain REID, *ATRAD Pty Ltd*
Shikha RAIZADA, *Arecibo Observatory*

AS11-D3-PM2-Nicoll 1-001 | AS11-A011 (Invited)

Mesospheric Radar Wind Comparisons at High and Middle Southern Latitudes
Iain REID[1,2#+], Daniel MCINTOSH[2], Damian MURPHY[3], Robert VINCENT[2]
[1]ATRAD Pty Ltd, [2]University of Adelaide, [3]Australian Antarctic Division

AS11-D3-PM2-Nicoll 1-002 | AS11-A009

Detection of Metals Ions Within Intermediate Layers over Arecibo and Their Comparison with Sporadic E
Shikha RAIZADA[1#+], M SULZER[2], Jens LAUTENBACH[2], J SMITH[3], N APONTE[2], P PERILLAT[2], J MATHEWS[4]
[1]Arecibo Observatory-UCF, [2]Arecibo Observatory, [3]National Aeronautics and Space Administration, [4]Pennsylvania State University

AS11-D3-PM2-Nicoll 1-003 | AS11-A005

Is Extreme Rainfall Event Influences the Mesospheric Features?
Som Kumar SHARMA[1#+], Prashant KUMAR[2], Priyanka GHOSH[1], Niranjan Kumar KONDAPALLI[1], Rajesh VAISHNAV[1]
[1]Physical Research Laboratory, [2]Space Application Center

AS11-D3-PM2-Nicoll 1-004 | AS11-A010 (Invited)

The Long-term Trends of Nocturnal Mesopause Temperature and Altitude Revealed by the Na Lidar Observations Between 1990 and 2018 at Mid-latitude
Tao YUAN[1#+]
[1]Utah State University

AS11-D3-PM2-Nicoll 1-005 | AS11-A013

Quasi-Lagrangian Drifting Balloons for Studying the Long-range Transport of Atmospheric Pollutants
François DULAC[1#+], Valerie GROS[2], Roland SARDA-ESTÈVE[1], Jean-Baptiste RENARD[3], Brice BARRET[4], Pierre DURAND[5], François GHEUSI[4], André VARGAS[6], Nicolas VERDIER[6], Sang-Woo KIM[7]
[1]French Alternative Energies and Atomic Energy Commission, [2]Institute Pierre Simon Laplace/ National Center for Scientific Research, [3]Université Orléans/ National Center for Scientific Research, [4]University of Toulouse III/ National Center for Scientific Research, [5]Université de Toulouse/ National Center for Scientific Research, [6]Centre National d'Etudes Spatiales, [7]Seoul National University

AS11-D3-PM2-Nicoll 1-006 | AS11-A014 (Invited)

Investigations on Winter Extreme Rainfall Episodes over Central and North Indian Region and the Role of Tropical Extra-tropical Interactions
Niranjan Kumar KONDAPALLI[1#+], Som Kumar SHARMA[1], D. V. PHANIKUMAR[2], Shaik GHOUSEBASHA[3], Manish NAJA[2], TBMJ OUARDA[4], Venkat Ratnam M[3], Karnam KISHORE KUMAR[5]
[1]Physical Research Laboratory, [2]Aryabhatta Research Institute of Observational Sciences, [3]National Atmospheric Research Laboratory, [4]National Institute for Scientific Research, [5]Vikram Sarabhai Space Centre

AS11-D3-PM2-Nicoll 1-007 | AS11-A006

Spatial Variability in Surface Measured Columnar Ozone and Water Vapor over the Southern Ocean and Validation of OMI Ozone and MODIS Water Vapor Products
Hareef Baba Shaeb KANNEMADUGU[1#+], Biswadip GHARAI[1], Dibyendu DUTTA[1], Seshasai MVR[1]
[1]Indian Space Research Organisation

ST26-PS17 / Future and Current Space Missions and Instrumentation for Space and Planetary Science

Wed - 31 Jul | MR309

Time 16:00-18:00

Chair(s) Yoshifumi SAITO, *Japan Aerospace Exploration Agency*

ST26-PS17-D3-PM2-309-001 | ST26-PS17-A001

New Coatings for Langmuir Probes in Oxygen-rich Space Plasmas
Joseph SAMANIEGO[1#+], Xu WANG[1], Laila ANDERSSON[1], David MALASPINA[1], Robert ERGUN[1], Mihaly HORANYI[1]
[1]University of Colorado Boulder

ST26-PS17-D3-PM2-309-002 | ST26-PS17-A023

Recent Radiation Measurements and Instrumentation in Polar Orbit: Ten-Koh 2018
Premkumar SAGANTI[1#+]
[1]Prairie View A&M University

ST26-PS17-D3-PM2-309-003 | ST26-PS17-A007

Performance of High Precision Magnetometer Onboard of China Seismo-electromagnetic Satellite
Bingjun CHENG[1#+], Bin ZHOU[1], Xiaochen GOU[1], Werner MAGNES[2], Roland LAMMEGGER[3], Andreas POLLINGER[2], Yiteng ZHANG[1], Jindong WANG[1], Lei LI[1]
[1]Chinese Academy of Sciences, [2]Austrian Academy of Sciences, [3]Graz University of Technology

ST26-PS17-D3-PM2-309-004 | ST26-PS17-A022

A Small Instrument Suite for Local Meteorology Onboard Future Balloon Mission to Venus
Durga Prasad KARANAM[1#], Chandan KUMAR[1], Sanjeev MISHRA[1], P KALYAN REDDY[1], Janmejay KUMAR[1], Varun SHEEL[1+], S.A. HAIDER[1], Anil BHARDWAJ[1]
[1]Physical Research Laboratory

ST26-PS17-D3-PM2-309-005 | ST26-PS17-A018 (Invited)

H2061: Space Technology and Instrumentation for the Second Half of the Twenty First Century
Manuel GRANDE[1#+], Michel BLANC[2]
[1]Aberystwyth University, [2]Research Institute in Astrophysics and Planetology

ST26-PS17-D3-PM2-309-006 | ST26-PS17-A013

J-Mag : The Magnetometer Instrument on Juice
Michele DOUGHERTY[1#+]
[1]Imperial College London

ST26-PS17-D3-PM2-309-007 | ST26-PS17-A019

OKEANOS: Jupiter Trojan Asteroid Mission Using a Solar Power Sail

Tatsuaki OKADA[1#+], Takahiro IWATA[1], Osamu MORI[1], Yoko KEBUKAWA[2], Motoo ITO[3], Jun AOKI[4], Yosuke KAWAI[4], Shoichiro YOKOTA[4], Shuji MATSUURA[5], Kohji TSUMURA[6], Daisuke YONETOKU[7], Tatehiro MIHARA[8], Hajime YANO[1,9], Takayuki HIRAI[10], Ayako MATSUOKA[1], Atsushi KUMAMOTO[6], Makoto YOSHIKAWA[1], Jun MATSUMOTO[1], Toshihiro CHUJO[1], Masanori MATSUSHITA[1], Junichiro KAWAGUCHI[1], Stephan ULAMEC[11], Jean-Pierre BIBRING[12]

[1]Japan Aerospace Exploration Agency, [2]Yokohama National University, [3]Japan Agency for Marine-Earth Science and Technology, [4]Osaka University, [5]Kwansei Gakuin University, [6]Tohoku University, [7]Kanazawa University, [8]RIKEN Advanced Institute for Computational Science, [9]Massachusetts Institute of Technology, [10]Chiba Institute of Technology, [11]German Aerospace Center (DLR), [12]University of Paris-Sud

SE24 / Geotechnical and Geophysical Site Characterization

Wed - 31 Jul | MR323

Time 16:00-18:00

Chair(s) Sung-Woo MOON, *Nazarbayev University*
Taeseo KU, *National University of Singapore*
Askar ZHUSSUPBEKOV, *L.N. Gumilyov Eurasian National University*

SE24-D3-PM2-323-001 | SE24-A001

HVSR Measurements and Applications in Singapore

Taeseo KU[1], Yunhuo ZHANG[1#+]

[1]National University of Singapore

SE24-D3-PM2-323-002 | SE24-A006 (Invited)

Insights from Strong Motion Downhole Array Data

Ning WANG[1#+], Xiaojun LI[2], Yushi WANG[1]

[1]China Earthquake Administration, [2]Chinese Academy of Sciences

SE24-D3-PM2-323-003 | SE24-A009

Nonlinearity of Surface Geology Effect on Ground Motion Based on Vertical Borehole Array Data

Yushi WANG[1#+], Ning WANG[1]

[1]China Earthquake Administration

SE24-D3-PM2-323-004 | SE24-A011

Laboratory Tests of Soils on Compression Triaxial Apparatus

Askar ZHUSSUPBEKOV[1#+], Iliyas ZHUMADILOV[1], Gulzhanat TANYRBERGENOVA[1]

[1]L.N. Gumilyov Eurasian National University

SE24-D3-PM2-323-005 | SE24-A012 (Invited)

Using Cross-hole Sonic Logging for Integrity Testing of Concrete Deep Foundations

Askar ZHUSSUPBEKOV[1#+], Nurgul SHAKIROVA[1], Gulzhanat TANYRBERGENOVA[1]

[1]L.N. Gumilyov Eurasian National University

SE24-D3-PM2-323-006 | SE24-A013

Period-multiplying Cycles as Precursors of Unloading-induced Fault Sliding

Cheng MEI[1+], Wei WU[1#]

[1]Nanyang Technological University

SE24-D3-PM2-323-007 | SE24-A008

3D Laser Scanning in the Mining Underground

Sung-Woo MOON[1#+], Sergei NIKITENKO[2], Yerassyl KOSHAN[2]

[1]Nazarbayev University, [2]Geolaser Company

BG Poster Presentations

Wed - 31 Jul, 13:30 - 15:30 | EXHIBITION HALL

BG01-D3-PM1-P-243 | BG01-A006 (Invited)

Spatial and Seasonal Variations of Dissolved Organic Matter and the Fluxes in the Pearl River Estuary, China

Guisheng SONG[1#+]

[1]*Tianjin University*

BG01-D3-PM1-P-247 | BG01-A014

Impact Assessment of Nutrient Flux from Carcass of Pink Salmon to River Water Quality

Katsuaki KOMAI[1#+], Kazuki YUHARA[1], Shunsuke HIROKI[1], Kei MATSUMOTO[1], Yasuyuki MARUYA[2]

[1]*Kitami Institute of Technology,* [2]*Gifu University*

BG01-D3-PM1-P-248 | BG01-A017

Ecosystem-scale Methane Fluxes in a Subtropical Mangrove Wetland

Jiangong LIU[1], Derrick LAI[1#+]

[1]*The Chinese University of Hong Kong*

BG03-D3-PM1-P-249 | BG03-A004

A Metabolomic Analysis on the Effects of Ocean Acidification on a Polar Phytoplankton Chlorella Sp.

Yong-Hao TAN[1], Phaik-Eem LIM[1#+], John BEARDALL[2], Sze Wan POONG[1], Siew Moi PHANG[1]

[1]*University of Malaya,* [2]*Monash University*

BG04-D3-PM1-P-250 | BG04-A001

Influence of Oceanographic Variability on Catch Rate of Yellowfin Tuna (Thunnus Albacares) Cohorts in the Indian Ocean

Kuo-Wei LAN[1#+], Yi-Jay CHANG[2], Yan-Lun WU[1]

[1]*National Taiwan Ocean University,* [2]*National Taiwan University*

BG04-D3-PM1-P-251 | BG04-A004

Remote Estimation of Chlorophyll-a Concentration Across Different Trophic States in Inland Lakes by a Hybrid Algorithm

Wei YANG[1#+], Bunkei MATSUSHITA[2], Akihiko KONDOH[1]

[1]*Chiba University,* [2]*University of Tsukuba*

BG04-D3-PM1-P-252 | BG04-A006

Long-term Variations of Cropland Growing Season Start at a Sub-county Level Using AVHRR NDVI

Hyeon-Ju GIM[1+], Chang-Hoi HO[2#], Su-Jong JEONG[2], Jinwon KIM[3], Song FENG[4], Michael HAYES[5]

[1]*School of Earth and Environmental Sciences,* [2]*Seoul National University,* [3]*Chapman University,* [4]*University of Arkansas,* [5]*University of Nebraska-Lincoln*

BG05-D3-PM1-P-253 | BG05-A002

Precipitation of Calcium Carbonate Mineral Induced by Viral Lysis of Cyanobacteria: Evidence from Laboratory Experiments

Hengchao XU[1+], Xiaotong PENG[1#], Shijie BAI[1]

[1]*Chinese Academy of Sciences*

BG05-D3-PM1-P-254 | BG05-A003

Intermittent Emission of Deep-sourced Methane-rich Fluid in Gas Hydrate Mounds in the Eastern Slope of the Chukchi Basin, Arctic Ocean

Young-Gyun KIM[1#+], Young Keun JIN[2], Byung-Dal SO[1]

[1]*Kangwon National University,* [2]*Korea Polar Research Institute*

BG05-D3-PM1-P-256 | BG05-A008

Carbon Isotopic Fractionation of a C1-utilizing Methylotroph, Methylobacterium Extorquens

Mellinda Aimee JAJALLA[1#+], Alexis GILBERT[2], Yuichiro UENO[2]

[1]*University of the Philippines Diliman,* [2]*Tokyo Institute of Technology*

BG06-D3-PM1-P-257 | BG06-A004

Interplay of Trace Elements with Tannic Acid in Shaping Biological Communities of Sundarbans

Anwesha GHOSH[1#+], Punyasloke BHADURY[1]

[1]*Indian Institute of Science Education and Research Kolkata*

BG06-D3-PM1-P-258 | BG06-A006

Exploring the Health of a Mangrove Ecosystem - Looking Through Trace Metals and Biological Communities

Punyasloke BHADURY[1#+], Ratul SAHA[2]

[1]*Indian Institute of Science Education and Research Kolkata,* [2]*WWF-India Sundarbans Landscape*

BG07-D3-PM1-P-259 | BG07-A001

Contrasting Mechanisms Behind Atmospheric CO2 Growth Between Two El Niño Events

Masayuki KONDO[1#+]

[1]*Chiba University*

BG07-D3-PM1-P-260 | BG07-A007

On Recent Trend of Land Use Change Emissions: Reality or Fallacy?

Masayuki KONDO[1#+]

[1]*Chiba University*

BG07-D3-PM1-P-261 | BG07-A008

Evaluating an Updated Data-driven Terrestrial CO2 Flux Estimation with Other Available Datasets

Kazuhito ICHII[1#+], Zhiyan LIU[1], Riku KAWASE[1], Masayuki KONDO[1], Masahito UEYAMA[2]

[1]*Chiba University,* [2]*Osaka Prefecture University*

BG07-D3-PM1-P-262 | BG07-A009 (Invited)

Impact of Heatwave in Summer 2018 on Terrestrial Vegetation Detected by Multiple Satellite-based Products

Kazuhito ICHII[1#+], Kazutaka MURAKAMI[2], Haruki OSHIO[2], Yukio YOSHIDA[2]

[1]*Chiba University,* [2]*National Institute for Environmental Studies*

BG08-D3-PM1-P-265 | BG08-A005

Arsenic Speciation in Fulvic Acid and Humic Acid from Natural Organic Sediments Using X-ray Absorption Spectroscopy

Junko HARA[1#+], Susumu NOROTA[2], Yoshishige KAWABE[1]

[1]*National Institute of Advanced Industrial Science and Technology,* [2]*Hokkaido Research Organization*

BG08-D3-PM1-P-268 | BG08-A010

Microbial Exopolysaccharide Binding and Removal of Arsenic from Groundwater

Arpitha CHIKKANNA[1,2#+], Devanita GHOSH[2]

[1]*Murdoch University,* [2]*Indian Institute of Science*

BG08-D3-PM1-P-270 | BG08-A013

Organic Biomarker Proxies Indicating Effect of Organic Carbon Chemistry on Arsenic Mobilization

Devanita GHOSH[1#+]

[1]*Indian Institute of Science*

BG09-D3-PM1-P-271 | BG09-A008

Fluorescence Analysis of Dissolved Organic Matter Released from Sediment to Water Layer of Han River
Haeseong OH[1+], Jung Hyun CHOI[1#]
[1]*Ewha Womans University*

BG09-D3-PM1-P-272 | BG09-A017

Does Solar Energy Development Benefit or Harm Ecological Functions of Irrigation Pond Ecosystems?
Rita S.W. YAM[1#], Hsin Hui WANG[1+], Wei Ta FANG[2]
[1]*National Taiwan University,* [2]*National Taiwan Normal University*

BG10-D3-PM1-P-273 | BG10-A001

Post-disaster Recolonization of Mangrove Forests with a Stochastic Agent-based Model
Joseph Earl BRANZUELA[1#+], Gabrielle Marie TORRES[1], Vena Pearl BONGOLAN[1,2]
[1]*University of the Philippines Diliman,* [2]*ICSU Regional Office for Asia and the Pacific*

BG10-D3-PM1-P-274 | BG10-A003

Modelling, Simulation and Visualization of a Multispecific Philippine Seagrass Meadow
Gabrielle Marie TORRES[1], Joseph Earl BRANZUELA[1#+], Vena Pearl BONGOLAN[1,2]
[1]*University of the Philippines Diliman,* [2]*ICSU Regional Office for Asia and the Pacific*

BG11-D3-PM1-P-275 | BG11-A005

Sizes Distributions of Proteinoid Microspheres with Different Preparation Conditions
Miho SASE[1#+], Hajime MITA[1]
[1]*Fukuoka Institute of Technology*

BG11-D3-PM1-P-277 | BG11-A010

The Community Composition of Picoeukaryotes and Their Distribution in the Segment of Subtropical Kuroshio Current
Chih-Ching CHUNG[1#+], Ya-Fan CHAN[2], Gwo-Ching GONG[1], Ching-Wei HSU[1]
[1]*National Taiwan Ocean University,* [2]*Academia Sinica*

BG11-D3-PM1-P-279 | BG11-A012

Analysis of Organic Matter in Moor Hot Spring Water
Saori MIKURIYA[1#+], Mimu MATSUMOTO[1], Hajime MITA[1]
[1]*Fukuoka Institute of Technology*

BG11-D3-PM1-P-280 | BG11-A013

Nucleotide Synthesis by UV Irradiation and Preliminary Study for Experiment on the International Space Station
Madoka SHIROMIZU[1#+], Kazumichi NAKAGAWA[2], Yoshitaka BESSHO[3], Hajime MITA[1]
[1]*Fukuoka Institute of Technology,* [2]*Kobe University,* [3]*Academia Sinica*

BG11-D3-PM1-P-281 | BG11-A015

Transpiration of the Cool Temperate Forest in a Snowy Mountain in Japan
Yoshiyuki MIYAZAWA[1#+], Kiyoshi ISHIDA[2]
[1]*Kyushu University,* [2]*Hirosaki University*

BG11-D3-PM1-P-283 | BG11-A021

Flow Structure in Meandering Channel with Vegetation
Modalavalasa SURESH[1#+], Chandan PRADHAN[1], Subashisa DUTTA[1], Vinayak Narayan KULKARNI[1]
[1]*Indian Institute of Technology Guwahati*

BG11-D3-PM1-P-284 | BG11-A024

Mercury Speciation in Fly Ash, Bottom Ash and Slag from Co-firing: Can it Reduce Hg(0) Emissions?
Flora BROCZA[1#+], Bhoopesh MISHRA[1]
[1]*University of Leeds*

AS2 Poster Presentations

Wed - 31 Jul, 13:30 - 15:30 | EXHIBITION HALL

AS02-D3-PM1-P-001 | AS02-A003

Changes in Record-breaking Temperature Events in China and Projections for the Future
Hanqing DENG[1#+]
[1]*Anhui Climate Center*

AS02-D3-PM1-P-003 | AS02-A007

Effects of Warming on the Root Turnover of Peatland During Growth Season in Permafrost Area in Great Xing'an Mountain
Hao ZHANG[1#+]
[1]*Chinese Academy of Sciences*

AS02-D3-PM1-P-006 | AS02-A016

Long-term Trend of the Tropical Pacific Trade Winds Under Global Warming and its Causes
Yang LI[1+], Quan-Liang CHEN[1#], Xiaoran LIU[2], Jianping LI[3], Nan XING[4], Fei XEI[3], Juan FENG[3], Zhou XIN[1], Hong-Ke CAI[1], Zhenglin WANG[1]
[1]*Chengdu University of Information Technology,* [2]*Chongqing Climate Center,* [3]*Beijing Normal University,* [4]*Beijing Meteorological Service*

AS03-D3-PM1-P-008 | AS03-A001

Interdecadal Shifts in the Winter Monsoon Rainfall of the Philippines
Lyndon Mark OLAGUERA[1#+], Jun MATSUMOTO[2,3], Hisayuki KUBOTA[4], Tomoshige INOUE[1], Esperanza CAYANAN[5], Flaviana HILARIO[5]
[1]*Tokyo Metropolitan University,* [2]*Tokyo Metropolitan University / JAMSTEC,* [3]*Japan Agency for Marine-Earth Science and Technology,* [4]*Hokkaido University,* [5]*Philippine Atmospheric, Geophysical and Astronomical Services Administration*

AS03-D3-PM1-P-009 | AS03-A003

Interannual Variation of Precipitation over the Indochina Peninsula and Relationship to Tropical Indo-pacific SST Anomalies
Yiya YANG[1,2+], Renguang WU[3#]
[1]*Chinese Academy of Sciences,* [2]*University of Chinese Academy of Sciences,* [3]*Zhejiang University*

AS03-D3-PM1-P-010 | AS03-A004

A Heat Budget Analysis of Seasonal Variation of the Indo-western Pacific Warm Pool
Yuqi WANG[1+], Renguang WU[2#]
[1]*Chinese Academy of Sciences,* [2]*Zhejiang University*

AS03-D3-PM1-P-011 | AS03-A007

Characteristics of Precipitation Events Spanning Different Numbers of Days over Indo-China Peninsula and Eastern China
Ting YOU[1+], Renguang WU[2#]
[1]*Chinese Academy of Sciences,* [2]*Zhejiang University*

AS03-D3-PM1-P-013 | AS03-A009

Relationship of Different Time Scale Droughts over Asia with SST and Soil Moisture
Yanting ZHANG[1#+], Renguang WU[2]
[1]*Chinese Academy of Sciences,* [2]*Zhejiang University*

AS03-D3-PM1-P-014 | AS03-A012

Formation and Influence of Snow Cover Anomalies over the Tibetan Plateau in Spring

Zhibiao WANG[1+], Renguang WU[2#]

[1]Chinese Academy of Sciences, [2]Zhejiang University

AS03-D3-PM1-P-016 | AS03-A018

Global Monsoon Responses to Precession and Obliquity Forcing

Zhaomin DING[1+], Fei LIU[2], Gang HUANG[1#], Renguang WU[3]

[1]Chinese Academy of Sciences, [2]Nanjing University of Information Science & Technology, [3]Zhejiang University

AS03-D3-PM1-P-019 | AS03-A024

The East Asian Monsoon and Tsushima Warm Current-related Annual Cycles of Ocean-atmosphere Heat Exchange in the Seas Around the Korean Peninsula from 2011 to 2016

Daeun YEO[1#+], Sung-Hyun NAM[1]

[1]Seoul National University

AS03-D3-PM1-P-020 | AS03-A027

Weakening of Northwest Pacific Anticyclone Anomalies During Post-El Niño Summers Under Global Warming

Wenping JIANG[1+], Gang HUANG[2], Ping HUANG[2#], Kaiming HU[2]

[1]Hohai University, [2]Chinese Academy of Sciences

AS03-D3-PM1-P-021 | AS03-A030

Correlation Between Meridional Migration of the East Asian Jet Stream and Tropical Convection over Indonesia in Winter

Hui YANG[1#+]

[1]Chinese Academy of Sciences

AS03-D3-PM1-P-023 | AS03-A039

Evaluation of Atmospheric General Circulation Models over the Asian Summer Monsoon Region in the Coupled Model Intercomparison Project 5 Experiments

Prasanna VENKATRAMAN[1#+], Jaiho OH[2], Ramesh KRIPALANI[2,3], Bhaskar PREETHI[3], Sumin WOO[2], Inwon KIM[2]

[1]Meteorological Service Singapore, [2]Pukyong National University, [3]Indian Institute of Tropical Meteorology

AS03-D3-PM1-P-027 | AS03-A053

Effect of the Tropical Pacific and Indian Ocean Warming Since the Late 1970s on Wintertime Northern Hemispheric Atmospheric Circulation and East Asian Climate Interdecadal Changes

Cuijiao CHU[1#+]

[1]Nanjing University

AS03-D3-PM1-P-028 | AS03-A059

Interdecadal Connections Between the Surface Temperature over the Arctic and the Summer Monsoon Precipitation over China

Yuefeng LI[1#+], L. Ruby LEUNG[2]

[1]China Meteorological Administration Training Center, [2]Pacific Northwest National Laboratory

AS04-D3-PM1-P-029 | AS04-A001

The Influence of Tibetan Plateau Thermal Anomaly on Low Frequency Activity in Bay of Bengal

Ziniu XIAO[1#], Xichun YANG[2+]

[1]Chinese Academy of Sciences, [2]Beijing Rainymet Technology Co. Ltd.

AS04-D3-PM1-P-030 | AS04-A004

A More Stable Atmosphere Under Global Warming Accelerates the Hydrological Cycle of MJO

Qiao-Jun LIN[1#+], Jia-Yuh YU[1]

[1]National Central University

AS04-D3-PM1-P-031 | AS04-A010

Impacts of the Madden-Julian Oscillation on the North Atlantic Oscillation

Xiaolu SHAO[1+], Jie SONG[2#], Shuanglin LI[2,3]

[1]Hohai University, [2]Chinese Academy of Sciences, [3]China University of Geosciences

AS04-D3-PM1-P-033 | AS04-A014

Modulation of the Madden-Julian Oscillation on the Energetics of Wintertime Synoptic-scale Disturbances

Lu WANG[1#+], Tim LI[2], Lin CHEN[1]

[1]Nanjing University of Information Science & Technology, [2]University of Hawaii

AS04-D3-PM1-P-034 | AS04-A021

Application of Dual-radar Retrievalwind Mosaics in Detailed Heavy Rainfall Forecast Produced by a Landfall Typhoon

Yehong WANG[1#+], Yuchun ZHAO[1]

[1]Xiamen Meteorological Bureau

AS04-D3-PM1-P-035 | AS04-A022

Barrier Effect on MJO Propagation by the Maritime Continent in the MJOTF/GASS Models

Jian LING[1#+]

[1]Chinese Academy of Sciences

AS05-D3-PM1-P-038 | AS05-A005

Causes of a Continuous Low-level Wind Shear at Hefei Airport in 2017

Houfu ZHOU[1#+], Naichao SHAN[2], Shaoqing CHEN[2], Qian ZHAO[1]

[1]Anhui Institute of Meteorological Sciences, [2]Meteorological Observatory of Anhui Air Traffic Control Branch

AS05-D3-PM1-P-041 | AS05-A014

Triggering Mechanism and Precipitation Characteristics of Landing Typhoon Matmo (2014) Rainbands

Peijun ZHU[1#+], Liu WENTING[2]

[1]Zhejiang University, [2]Hubei Meteorological Cente

AS05-D3-PM1-P-042 | AS05-A018

Quantitative Analysis of Snow Crystals Using a Multi-angle Snowflake Camera (MASC) in the Yeongdong Region of Korea

Suhyun KIM[1#+], Byung-Gon KIM[1], Seung-Hee EUN[1], Baek-Jo KIM[2]

[1]Gangneung-Wonju National University, [2]National Institute of Meteorological Research

AS05-D3-PM1-P-044 | AS05-A024

Regional Distribution of Summertime Heavy Rainfall According to Representative Weather Pattern in Seoul, Korea

Woosuk CHOI[1#+]

[1]Seoul Institute of Technology

AS05-D3-PM1-P-045 | AS05-A025

Environment and Processes for Heavy Rainfall in the Early Morning over the Korean Peninsula During Episodes of Cloud Clusters Associated with Mesoscale Troughs

Uju SHIN[1#+], Tae-Young LEE[1], Sang-Hun PARK[1]

[1]Yonsei University

AS05-D3-PM1-P-046 | AS05-A026

Sensitivity of Cumulus Parameterization Schemes to Simulations of Heavy Rainfall Event over the Korean Peninsula

Haerin PARK[1+], Dong-Hyun CHA[1#]

[1]Ulsan National Institute of Science and Technology

AS08-D3-PM1-P-051 | AS08-A001

Link of Extreme Hourly Precipitation Changes to Urbanization over Coastal South China: Observational Analysis and Modeling Study

Mengwen WU[1+], Yali LUO[1#], Fei CHEN[2]

[1]Chinese Academy of Meteorological Sciences, [2]National Center for Atmospheric Research

AS08-D3-PM1-P-052 | AS08-A002

Statistical Characteristics of Presummer Rainfall over South China and Associated Synoptic Conditions

Zhenghui LI[1+], Yali LUO[1#], Yangruixue CHEN[2]

[1]Chinese Academy of Meteorological Sciences, [2]China Meteorological Administration

AS08-D3-PM1-P-054 | AS08-A006

BMA Probabilistic Precipitation Forecasting over East Asia Using TIGGE Multimodel Ensemble Forecasts

Luying JI[1#+], Xiefei ZHI[1], Shoupeng ZHU[1]

[1]Nanjing University of Information Science & Technology

AS08-D3-PM1-P-055 | AS08-A008

Classify Radar Echoes into Stratiform and Convective Using a Machine Learning Algorithm

Zhida YANG[1#+], Yi YANG[1]

[1]Lanzhou University

AS08-D3-PM1-P-056 | AS08-A009

Evaluation of Cloud Microphysical Schemes for Heavy Precipitation Prediction over Central Mongolia

Ganbold BOLDBAATAR[1+], Jambajamts LKHAMJAV[1#], Otgonsuren SHAR[1]

[1]National University of Mongolia

AS08-D3-PM1-P-057 | AS08-A010

Quantitative Precipitation Forecasts: Model Output Statistics Based on a Deep Convolutional Neural Network

Yan JI[1#+], Ting PENG[1], Luying JI[1], Xiefei ZHI[1]

[1]Nanjing University of Information Science & Technology

AS08-D3-PM1-P-059 | AS08-A014

Flood Disaster Assessment Under Climate Change in Taichung City, Taiwan

Yi-Hua HSIAO[1#+], Yi-Chiung CHAO[1], Lun-Tsun CHEN[2], Chih-Tsung HSU[2], Chao-Tzuen CHENG[1], Keh-Chia YEH[3], Hsinchi LI[1]

[1]National Science and Technology Center for Disaster Reduction, [2]National Center for High-Performance Computing, [3]National Chiao Tung University

AS08-D3-PM1-P-060 | AS08-A022

On Observational Aspects of a Tropical Extreme Rainfall Event

Unnikrishnan CHIRIKANDATH KALATH[1#+], Dharmadas JASH[2], Sumesh R.K[2], Resmi E.A[2], Ramachandran K.K[2]

[1]National Centre for Earth Science Studies,, [2]National Centre for Earth Science Studies

AS08-D3-PM1-P-061 | AS08-A024

Numerical Simulations of Heavy Rainfall and Streamflow over Davao City, Philippines: A Baseline Study for the Development of a Hydro-meteorological Flood Forecasting System

Ma. Cathrene LAGARE[1#+], Rochelle CORONEL[1]

[1]Ateneo de Davao University

AS13-D3-PM1-P-062 | AS13-A002

Middle Atmosphere Ionization from Particle Precipitation as Observed by the SSUSI Satellite Instruments

Stefan BENDER[1#+], Patrick ESPY[1,2]

[1]Norwegian University of Science and Technology, [2]University of Bergen

AS13-D3-PM1-P-063 | AS13-A003

Microwave Radiometer Observations of Mesospheric Ozone Loss over Antarctica Associated with Particle Precipitation

Patrick ESPY[1,2#+], Stefan BENDER[1], Elise KNUTSEN[1]

[1]Norwegian University of Science and Technology, [2]University of Bergen

AS13-D3-PM1-P-064 | AS13-A011

Multistatic Meteor Radar Observations of Gravity-wave-tidal Interaction over Southern Australia

Andrew SPARGO[1#], Iain REID[1,2], Andrew MACKINNON[1], Bronwyn DOLMAN[2+]

[1]University of Adelaide, [2]ATRAD Pty Ltd

AS13-D3-PM1-P-065 | AS13-A012

An Investigation of Planetary Wave and Tidal Interaction in the MLT at 60°N Using SuperDARN and NAVGEM-HA

Willem VAN CASPEL[1#+], Patrick ESPY[1,2], Robert HIBBINS[1,2], John MCCORMACK[3]

[1]Norwegian University of Science and Technology, [2]University of Bergen, [3]Naval Research Laboratory

AS13-D3-PM1-P-067 | AS13-A023

The Simultaneously Existence of Mountain Waves and Inertia Waves Observed by a Rayleigh Doppler Wind Lidar

Ruocan ZHAO[1#+], Dongsong SUN[1], Xianghui XUE[1], Chong CHEN[1], Xiankang DOU[1]

[1]University of Science and Technology of China

AS14-D3-PM1-P-068 | AS14-A001

The Application of Barnes Filter on Positioning the Center of Landed Tropical Cyclone in Numerical Simulation

Haibo ZOU[1+], Shanshan WU[2#]

[1]Meteorological Sciences Institute of Jiangxi Province, [2]Meteorological Disaster Emergency Warning Center of Jiangxi

AS14-D3-PM1-P-071 | AS14-A015

The Impact of Horizontal Diffusion Parameterization on Typhoon Morakot (2009) Structure and Intensity

Yi ZHANG[1#+]

[1]Nanjing University

AS14-D3-PM1-P-075 | AS14-A033

The Remote Effect of Typhoon Khanun (2017) on the Heavy Rainfall over Eastern Taiwan – Evaluation of Uncertainty Based on Ensembles Simulations

Yi-Hsuan LIN[1+], Chun-Chieh WU[1#]

[1]National Taiwan University

AS14-D3-PM1-P-076 | AS14-A034

Impact of Cloud Microphysics Schemes on Typhoon Forecast over the Western North Pacific

Jinyoung PARK[1+], Minkyu LEE[1], Jihong MOON[1], Dong-Hyun CHA[1#]

[1]Ulsan National Institute of Science and Technology

AS14-D3-PM1-P-077 | AS14-A035

Taiwan Typhoon Rainfall Change Under Global Warming in HiRAM and MRI Models

Hsin-Yu CHIANG[1#+], Chao-Tzuen CHENG[1], Chia-Ying TU[2], Huang-Hsiung HSU[2], Akio KITOH[3]

[1]National Science and Technology Center for Disaster Reduction, [2]Academia Sinica, [3]Japan Meteorological Business Support Center

AS14-D3-PM1-P-078 | AS14-A036

The Importance of Moisture in Tropical Cyclone Core Region Leads to TC Intensity Uncertainty Growth

Thi Hoan NGUYEN[1+], Shu-Chih YANG[1#], Kuan-Jen LIN[1], Yileng CHEN[2], Hiep NGUYEN[3]

[1]National Central University, [2]University of Hawaii at Manoa, [3]Vietnam Academy of Science and Technology

AS14-D3-PM1-P-079 | AS14-A041

Improving Performance of Typhoon Track Prediction over the Western North Pacific Using Machine Learning

Kyoung Min KIM[1#+], Dong-Hyun CHA[1], Tae Ho MUN[1], YiJune PARK[1]

[1]Ulsan National Institute of Science and Technology

AS14-D3-PM1-P-081 | AS14-A049

Autumn Tropical Cyclones over Western North Pacific During 1949-2016: A Statistical Study

Xiuping YAO[1#+], Dajun ZHAO[2], Ying LI[3]

[1]China Meteorological Administration Training Centre, [2]Chinese Academy of Meteorological Sciences, [3]National Climate Center

AS15-D3-PM1-P-083 | AS15-A003

Study of Reactive Nitrogen Species in an Indoor Household in Delhi (India)

Ankita KATOCH[1#+], U.C. KULSHRESTHA[1]

[1]Jawaharlal Nehru University

AS15-D3-PM1-P-084 | AS15-A009

The Thermal Environment of the Hanshin Area Brought by Thermal Local Circulation of the Rokko Mountains

Yoshinori SHIGETA[1#+], Yuki OGIHARA[2]

[1]Tottori University of Environmental Studies, [2]Graduate School Tottori University of Environmental Studies

AS15-D3-PM1-P-085 | AS15-A010

Verification of Thermal Environments and Temperature Reduction Effects in the Kumamoto Castle Park Using WBGT

Yoshinori SHIGETA[1#+], Megumi SAKO[1]

[1]Tottori University of Environmental Studies

AS15-D3-PM1-P-087 | AS15-A013

Comparing the Diurnal and Seasonal Variabilities of Atmospheric and Surface Urban Heat Islands Based on the Beijing Urban Meteorological Network

Shaojing JIANG[1+], Jizeng DU[1#]

[1]Beijing Normal University

AS15-D3-PM1-P-089 | AS15-A017

Theoretical Urban Heat Island Circulation in the Temperature Inversion Profile

Yao-Kun LI[1#+], Jiping CHAO[2]

[1]Beijing Normal University, [2]National Marine Environmental Forecasting Center

AS17-D3-PM1-P-090 | AS17-A002

Episode Study of Fine Particle and Ozone During the CAPUM-YRD over Yangtze River Delta, Eastern China: Characteristics and Source Attribution

Lei SHU[1#+], Tijian WANG[1]

[1]Nanjing University

AS17-D3-PM1-P-091 | AS17-A003

Surface Ozone Pollution and its Association with Synoptic Weather Patterns in the Yangtze River Delta Region, China

Gao DA[1+], Min XIE[1#]

[1]Nanjing University

AS17-D3-PM1-P-092 | AS17-A009

Role of Heterogeneous Chemistry and Regional Transport in Two Wintertime Extreme Haze Episodes in the Yangtze River Delta Region of China

Mengmeng LI[1+], Tijian WANG[1#], Bingliang ZHUANG[2]

[1]Nanjing University, [2]School of Atmospheric Sciences, Nanjing University

AS17-D3-PM1-P-093 | AS17-A011

Source Apportionment of Tropospheric Ozone in YRD Using an Improved Three-regime O3 Source Apportionment Technique

Jianlin HU[1#+], Qi YING[2]

[1]Nanjing University of Information Science & Technology, [2]Texas A&M University

AS17-D3-PM1-P-094 | AS17-A013

Exploring the Influence of Two Inventories on Simulated Air Pollutants During Winter over the Yangtze River Delta

Tong SHA[1#+], Xiaoyan MA[1]

[1]Nanjing University of Information Science & Technology

AS17-D3-PM1-P-095 | AS17-A014

Inter-annual Variability of PM2.5 Concentrations over East Asia Associated with Climate Connections

Jaein JEONG[1#+], Rokjin J. PARK[1], Sang-Wook YEH[2], Chang-Keun SONG[3], Joon-Woo ROH[1]

[1]Seoul National University, [2]Hanyang University, [3]Ulsan National Institute of Science and Technology

AS17-D3-PM1-P-096 | AS17-A015

Modeling Particulate Matter and Ozone in the 18 Cities of Sichuan Basin, Southwestern China

Hongliang ZHANG[1#+], Qiao XUE[2], Hao GUO[3], Pengfei WANG[3], Ya TANG[2], Qi YING[4], Wenye DENG[5]

[1]Fudan University, [2]Sichuan University, [3]Louisiana State University, [4]Texas A&M University, [5]Xinjiang Academy of Environmental Protection Science

AS17-D3-PM1-P-097 | AS17-A016

Comparison of CH4 Derived from g-b FTS and GOSAT and Evaluation Using Aircraft In-situ Observations over TCCON Site

Young-Suk OH[1#+], Samuel Takele KENEA[1]

[1]National Institute of Meteorological Sciences

AS17-D3-PM1-P-098 | AS17-A017

Assessment of the Performance of the PV Cells Affected by the Optical Properties of PM2.5 - Asian Dust and Haze Episodes at Seoul in 2013

Jiyeon CHOI[1+], Daehyun WEE[1#]

[1]Ewha Womans University

AS17-D3-PM1-P-099 | AS17-A024

Meteorological Influences on Seasonal Variations of Air Pollutants (SO2, NO2, O3, CO, PM2.5 and PM10) in Dhaka City

Mir Md. Mozammal HOQUE[1#+]

[1]Mawlana Bhashani Science and Technology University

AS17-D3-PM1-P-100 | AS17-A026

Source Apportionment of Size-segregated Atmospheric Particles and the Influence of Particles Deposition in the Human Respiratory Tract in Five Locations in Assam, India

Rajyalakshmi GARAGA[1], Sri KOTA[2#+]

[1]Indian Institute of Technology Guwahati, [2]Indian Institute of Technology Delhi

AS17-D3-PM1-P-101 | AS17-A030

Effects of Emission Reduction on Air Pollution in India
Hao GUO[1+], Sri KOTA[2], Hongliang ZHANG[1#]
[1]*Louisiana State University,* [2]*Indian Institute of Technology Delhi*

AS17-D3-PM1-P-102 | AS17-A031

Evaluation of the Health Impact of Air Quality in Major Chinese Cities Using an Air Quality Index Based on Environmental Epidemiology
Tingting LIAO[1#+]
[1]*Chengdu University of Information Technology*

AS19-D3-PM1-P-104 | AS19-A004

Study of Annual AOD Variation Using Aerosol Type Separation After 2000 in Northeast Asia Using Aeronet Data
So Hee JOO[1+], Youngmin NOH[1#]
[1]*Pukyong National University*

AS19-D3-PM1-P-105 | AS19-A005

Black Carbon AOD Retrieval in Beijing Using Depolarization Ratio of AERONET Data
Youngmin NOH[1#+], So Hee JOO[1]
[1]*Pukyong National University*

AS19-D3-PM1-P-106 | AS19-A006

Statistical Analysis of Radar Variables and Particle Size Distributions for Volcanic Ash Clouds Using X-band Dual-polarimetric Radar
Sung-Ho SUH[1+], Dong-In LEE[1#], Masayuki MAKI[2], Masato IGUCHI[3]
[1]*Pukyong National University,* [2]*Kagoshima University,* [3]*Kyoto University*

AS19-D3-PM1-P-108 | AS19-A011

Observationally Constrained Analysis of Aerosols over the Pacific Ocean
Huisheng BIAN[1#+], Pedro CAMPUZANO-JOST[2], Mian CHIN[3], Peter COLARCO[4], Anton DARMENOV[3], Karl FROYD[5], Alma HODZIC[6], Jose-Luis JIMENEZ[2], Daniel MURPHY[5], Gregory SCHILL[5], Hongbin YU[3]
[1]*University of Maryland Baltimore County,* [2]*University of Colorado, Boulder,* [3]*NASA Goddard Space Flight Center,* [4]*National Aeronautics and Space Administration,* [5]*National Oceanic and Atmospheric Administration,* [6]*National Center for Atmospheric Research*

AS19-D3-PM1-P-109 | AS19-A012

The Long Trend of Dust Events in Central Asia and Their Relationship to Wind and Precipitation During 1960-2015
Jing SU[1#+]
[1]*Lanzhou University*

AS19-D3-PM1-P-110 | AS19-A013

Effects of Aerosols on Ozone Considering its Precursors in the Summertime in Shanghai, China
Qiong LIU[1+], Yonghang CHEN[1#]
[1]*Donghua University*

AS19-D3-PM1-P-111 | AS19-A017

A Study on the Incidence and AOD Ratio of Asian Dust with Multi-wavelength Aerosol Depolarization Raman Lidar in Gwangju, Korea During DRAGON
So Hee JOO[1+], Youngmin NOH[1#], Dongho SHIN[2]
[1]*Pukyong National University,* [2]*Sejong Special Self-Governing City*

AS19-D3-PM1-P-112 | AS19-A018

Development of a Technique for Calculating the Ratio of Backscatter Coefficient to Aerosol Type Using Lidar Data
So Hee JOO[1+], Youngmin NOH[1#]
[1]*Pukyong National University*

AS19-D3-PM1-P-113 | AS19-A019

Retrieval and Parameterization of Mineral Dust Mass Extinction Coefficient Based on Sun-photometer Measurements
Tianhe WANG[1#+], Hanyang QIAO[1]
[1]*Lanzhou University*

AS21-D3-PM1-P-114 | AS21-A003

Climatology of Cloud-base and Cloud-top Height from a Ground-based Cloud Radar Observations over Beijing, China
Qing ZHOU[1+], Yong ZHANG[1#]
[1]*China Meteorological Administration*

AS21-D3-PM1-P-116 | AS21-A012

An Optical Property Database for Black Carbon Aggregates
Chao LIU[1#+], Yan YIN[1], Martin SCHNAITER[2], Yuk YUNG[3]
[1]*Nanjing University of Information Science & Technology,* [2]*Karlsruhe Institute of Technology,* [3]*California Institute of Technology*

AS21-D3-PM1-P-117 | AS21-A014

Characteristics of Aerosol-weather Interactions During the Hazes Events in Korea
Sung-Min PARK[1+], Seung-Hee EUN[1], Byung-Gon KIM[1#], Jin-Soo PARK[2]
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AS21-D3-PM1-P-118 | AS21-A015

Effects of Black Carbon and Boundary Layer Interaction on Surface Ozone in Nanjing, China
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AS21-D3-PM1-P-121 | AS21-A024

Impacts of Aerosol Pollution on Urban-heat-island Intensity in the Beijing–Tianjin–Hebei Region, China
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AS21-D3-PM1-P-122 | AS21-A025

Characterization and Analysis of Hot and Polluted Events in the Pearl River Delta Region Using WRF Model
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AS21-D3-PM1-P-124 | AS21-A030

An Evaluation of Different Microphysics Schemes for Aerosol-precipitation Interactions in the Mid-Korean Peninsula
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AS21-D3-PM1-P-125 | AS21-A032

Background Characteristics of Atmospheric CO2 and the Potential Source Regions at Pearl River Delta (PRD), China
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AS22-D3-PM1-P-126 | AS22-A003

Responses of Zonal Wind over Mid-latitude to Stratospheric Sudden Warming Events in the Middle Atmosphere
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AS22-D3-PM1-P-128 | AS22-A008

The Different Influences on "Wave Turbopause" Exerted by Gravity Waves and Planetary Waves

Wei GE[1+], Zheng SHENG[2#], BoJiang YANG[3], Ju WANG[3], WeiLai SHI[3], Xiao Cun SHU[4]

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AS22-D3-PM1-P-129 | AS22-A019

Correction of the Density at Middle Atmosphere (20-100km) of NRLMSISE-00 Based on TIMED/SABER Density Data

Xuan CHENG[1#+], Junfeng YANG[1], Cunying XIAO[1], Xiong HU[1]

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AS22-D3-PM1-P-130 | AS22-A024

Sources of Inertia-gravity Waves Revealed in the Radiosonde Observation at Jang Bogo Station (JBS), Antarctica

Ji-Hee YOO[1+], Hye-Yeong CHUN[1#], In-Sun SONG[2], Byeong-Gwon SONG[2]

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AS22-D3-PM1-P-131 | AS22-A025

Tendency Equation for Lapse-rate-tropopause Heights

Masashi KOHMA[1#+], Kaoru SATO[1]

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AS22-D3-PM1-P-133 | AS22-A031

A New Technology to Study on Small Scale Variation of Near Space Atmospheric Environment During Solar Storms

Song LIANG[1#+], Xiong HU[1], Wei FENG[1], Yan ZHAOAI[1]

[1]Chinese Academy of Sciences

AS22-D3-PM1-P-134 | AS22-A038

The Profile of HCl from the Stratosphere to the Lower Thermosphere Observed by Superconducting Submillimeter-wave Limb-emission Sounder (SMILES)

Seidai NARA[1,2#+], Takayoshi YAMADA[1], Kaley WALKER[3], Nario KUNO[2], Yasuko KASAI[1]

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AS22-D3-PM1-P-135 | AS22-A039

Gravity Waves in the Stratosphere Observed by a Mobile Doppler Wind and Temperature Lidar

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AS22-D3-PM1-P-136 | AS22-A041

Measuring the Three-dimensional Structure of Gravity Waves by Lidar

Wenjie GUO[1#+], Yan ZHAOAI[1]

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AS26-D3-PM1-P-137 | AS26-A002

Comparison of Statistical Downscaling and Bias-correction Methods for Current Estimation and Future Projection of Multi Agro-climatic Elements over Japan

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AS26-D3-PM1-P-138 | AS26-A004

The Added Value of Very High Resolution Simulation over South Korea Using WRF

Liying QIU[1+], Eun-Soon IM[1#]

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AS26-D3-PM1-P-139 | AS26-A008

Extreme Winds in the Long-term High-resolution Reproduction Dataset CRIEPI-RCM-Era2

Yoshikazu KITANO[1#+], Yasuo HATTORI[1], Atsushi HASHIMOTO[1], Hiromaru HIRAKUCHI[1]

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AS26-D3-PM1-P-140 | AS26-A009

High-resolution WRF Simulation of a Heat Wave Event in Kansas City and Sensitivities to Physical Parameterizations

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AS26-D3-PM1-P-141 | AS26-A019

Sensitivity of Summer Precipitation over Korea to the Convective Parameterizations in the RegCM 4.6: Updated Assessment

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AS26-D3-PM1-P-142 | AS26-A023

Configuration of RegCM4 over CORDEX South East Asia Domain

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AS26-D3-PM1-P-143 | AS26-A024

Hydroclimatic Intensity Changes over East Asia Based on MME Regional Projections

Ga-Yeong SEO[1+], Yeon-Woo CHOI[1], Eun-Soon IM[2], Joong-Bae AHN[1#], Myoung-Seok SUH[3], Dong-Hyun CHA[4], Seung-Ki MIN[5]

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AS26-D3-PM1-P-144 | AS26-A025

Changes in Rice Productions in the Korean Peninsula Under RCP Scenarios Using Multi-GCM and Multi-RCM Ensemble

Young Hyun KIM[1+], Joong-Bae AHN[1#], Myoung-Seok SUH[2], Dong-Hyun CHA[3], Seung-Ki MIN[4]

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AS27-D3-PM1-P-145 | AS27-A003

Mechanisms of Orographically Enhanced Precipitation Associated with Typhoon Meari (2011) over Mt. Da-Tun

Syuan-Ping CHEN[1#+], Cheng-Ku YU[1], Lin-Wen CHENG[1], Olivier BOUSQUET[2]

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AS27-D3-PM1-P-146 | AS27-A005

Characteristics of Sea Breeze in Yeongdong Region of Korea for 2008 - 2018

Hyewon HWANG[1#+], Byung-Gon KIM[1], Seung-Hee EUN[1]

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AS27-D3-PM1-P-147 | AS27-A010

Effects of Changes in the Tibetan Plateau Positions on Summer Climate

Junbin WANG[1#+], Song YANG[1], Zhenning LI[1]

[1]Sun Yat-sen University

AS27-D3-PM1-P-148 | AS27-A012

Idealized Numerical Simulations of Orographic Precipitation to the Easterly Flow in the Eastern Coastal Region in Korea

Ji Won YOON[1#+], Seon Ki PARK[1], Sojung PARK[1], Seung Yeon LEE[1]

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AS27-D3-PM1-P-149 | AS27-A013

Synoptic-climatological Analyses and High-resolution Simulation of the Easterly-related Weather Systems over the East Coast of South Korea

Seung Yeon LEE[1+], Sojung PARK[1], Ebony LEE[1], Ji Won YOON[1], Seon Ki PARK[1#]

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AS27-D3-PM1-P-150 | AS27-A016

Roles of Interactions of Typhoon Nesat (2017) and Haitang (2017) and Topographic Effects in the Formation and Structure of Outer Tropical Cyclone Rainbands

Yu-Rui HUANG[1#+], Cheng-Ku YU[1]

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AS27-D3-PM1-P-151 | AS27-A020

Upstream Influences of Topography on Precipitation Associated with Landfalling Fronts: A Review

Cheng-Ku YU[1#+], Jia-Cheng SYU[2]

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AS27-D3-PM1-P-152 | AS27-A021

Orographic Enhancement of Precipitation Associated with Typhoons over Southwestern Taiwan

Jia-Cheng SYU[1#+], Cheng-Ku YU[2], Lin-Wen CHENG[2], Che-Yu LIN[2]

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AS28-D3-PM1-P-153 | AS28-A001

Case Study of Sea Fog Predictability for an Event with Cold-front Synoptic Pattern

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AS28-D3-PM1-P-154 | AS28-A007

Diurnal Cycle over a Coastal Area of the Maritime Continent as Derived by Special Networked Soundings over Jakarta During HARIMAU2010

Masaki KATSUMATA[1#+], Shuichi MORI[1], Jun-Ichi HAMADA[2], Miki HATTORI[1], Fadli SYAMSUDIN[3], Manabu D. YAMANAKA[4,5]

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AS28-D3-PM1-P-155 | AS28-A009

A Novel Way to Determine the Local Onset and Retreat of the Monsoon and Inter-monsoon Seasons Using Daily Weather Regime Classifications: A Singapore Case Study

Yujia HE[1], Muhammad Eeqmal HASSIM[2#+], Bertrand TIMBAL[3]

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AS28-D3-PM1-P-156 | AS28-A010

Was the Singapore January 2018 Cold Spell Record-breaking?

Junhua YANG[1#+], Peiyun TEO[2], Bertrand TIMBAL[3]

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AS28-D3-PM1-P-157 | AS28-A012

Evaluation of WRF Cumulus Parameterization Scheme in High Resolution Simulations of Rainfall and Temperature over Peninsular Malaysia

Abdul Azim AMIRUDIN[1#+], Ester SALIMUN[1], Fredolin TANGANG[1,2], Ju Neng LIEW[1]

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AS28-D3-PM1-P-158 | AS28-A013

SINGV Model Performance over the Maritime Continent and the Singapore Domain from One Month Climate Run

Prasanna VENKATRAMAN[1#+], Bertrand TIMBAL[2], Anurag DIPANKAR[1], Muhammad Eeqmal HASSIM[3], Boon Chong Peter HENG[1], Joshua QIAN[1]

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AS28-D3-PM1-P-159 | AS28-A017

Air-sea Interaction During the Short-term Ocean Hot Events

Huiling QIN[1#+], Guixing CHEN[1]

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AS28-D3-PM1-P-160 | AS28-A021

Using GPS-derived Precipitable Water to Monitor Meteorological Events in Singapore

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AS28-D3-PM1-P-161 | AS28-A025

Analysis of Drought Potential in Yogyakarta as Impact From Climate Change Based on Standard Precipitation Index (SPI)

, Sinta BERLIANA[1#+], Amalia NURLATIFAH[1], Indah SUSANTI[1], Bambang SISWANTO[1], Fanny ADITYA PUTRI[1], Martono MARTONO[1], Halimurrahman HALIMURRAHMAN[1], Edy MARYADI[1]

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AS28-D3-PM1-P-162 | AS28-A027

Bias Correction of Surface Wind Speed Prediction by Using the Decaying Average Algorithm

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AS29-D3-PM1-P-163 | AS29-A005

Analysis of the Entrainment-mixing Processes in Cumulus Clouds over the Tibetan Plateau

Shi LUO[1+], Chunsong LU[1#], Yangang LIU[2], Janchun BIAN[3], Wenhua GAO[4], Xiaoqi XU[1], Sinan GAO[1], Suying YANG[1], Xiaohao GUO[5]

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AS29-D3-PM1-P-164 | AS29-A006

Subgrid Precipitation of Mesoscale Atmospheric Systems as Represented by MODIS Cloud Regimes

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AS29-D3-PM1-P-165 | AS29-A007

Aircraft-based Study of Aerosol-cloud Interaction in Hebei, China

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AS29-D3-PM1-P-166 | AS29-A008

Development of Cloud Image Velocimetry Based on Stereo Vision

Makoto NAKAYOSHI[1#+], Yusuke TAKASE[1], Masakazu TAKANO[1]

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AS29-D3-PM1-P-167 | AS29-A012

Formulation of a Physically-based Convective Adjustment Time-scale: Impact on Climate Simulations over the Maritime Continent

Raju PATHAK[1#+], Sandeep SAHANY[1], Saroj Kanta MISHRA[1]
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AS33-D3-PM1-P-168 | AS33-A001

Coupling of the Quasi-biweekly Oscillation of the Tibetan Plateau Summer Monsoon with the Arctic Oscillation

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AS33-D3-PM1-P-169 | AS33-A008

Effects of the Tibetan Plateau on Atmospheric Transient Eddies and Their Link to East Asian Summer Rainfall

Ren QIAOLING[1+], Song YANG[1#], Xingwen JIANG[2], Zhenning LI[1]
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AS33-D3-PM1-P-170 | AS33-A009

Process-based Attribution of Long-term Surface Warming over the Tibetan Plateau

Yuting WU[1+], Song YANG[1#], Xiaoming HU[1]
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AS33-D3-PM1-P-171 | AS33-A016

Modeling the Influences of Topography on the Weather and Climate of South-west China

Kalli FURTADO[1#+], Paul FIELD[1], Puxi LI[2], Tianjun ZHOU[2]
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AS33-D3-PM1-P-175 | AS33-A021

Intraseasonal Variability of Rainfall and its Effect on Interannual Variability Across the Indian Subcontinent and the Tibetan Plateau

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AS34-D3-PM1-P-177 | AS34-A002

Clear Air Turbulence over the North Pacific in a 2-degree Warming Climate – Ensemble Projections by a 60-km Atmospheric General Circulation Model

Shingo WATANABE[1#+], Mikiko FUJITA[1], Sho KAWAZOE[1], Shiori SUGIMOTO[1], Yasuko OKADA[1], Ryo MIZUTA[2], Masayoshi ISHII[2]
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AS34-D3-PM1-P-178 | AS34-A004

Improvement in Upper-level Turbulence Forecast Using Hybrid Vertical Coordinate System

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AS34-D3-PM1-P-179 | AS34-A010

Low Level Wind Shear Prediction at Jeju International Airport, Korea

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AS35-D3-PM1-P-181 | AS35-A002

A System Dynamics Approach to Assessing the Health, Environmental, and Socio-economic Implications of the Jeepney Modernization in Metro Manila, Philippines

Katrina ABENOJAR[1#+], Carlos Rosauro MANALO[1], C. Kendra GOTANGCO[1,2], Melliza CRUZ[2], Maria Obiminda CAMBALIZA[1]
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AS35-D3-PM1-P-182 | AS35-A003

Observation and Discussion of Air Pollutant in Industrial Zone by Using Real-time Network of Scanning Lidar, Anemometers and Micro-sensors

Chih-Wei CHIANG[1#+], Tien-Ying CHUNG[1], Huann-Ming CHOU[1]
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AS35-D3-PM1-P-183 | AS35-A006

Analysis of PM2.5 Hot Zones by the Application of Machine Learning and Low-cost Sensors

Wen-Cheng Vincent WANG[1#], Shih-Chun Candice LUNG[1+]
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AS35-D3-PM1-P-184 | AS35-A008

Assessment of Jeepney Drivers' PM2.5 Personal Exposure Levels in Metro Manila, Philippines

Imee DELOS REYES[1#+], Melliza CRUZ[2], Maria Obiminda CAMBALIZA[1], C. Kendra GOTANGCO[1,2], Katrina ABENOJAR[1], Carlos Rosauro MANALO[1], Bernell GO[2]
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AS35-D3-PM1-P-185 | AS35-A009

Evaluation of Low-cost PM2.5 Sensing Devices for Exposure and Health Research

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AS35-D3-PM1-P-186 | AS35-A011

Short-term Effects of Particulate Matter from Various Sources on Heart Rate Variability

Delvina SINAGA[1,2+], Wiwiek SETYAWATI[3], Shih-Chun Candice LUNG[1#]
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AS35-D3-PM1-P-188 | AS35-A015

Utilizing ASLUNG Particulate Matter (PM) Sensor to Assess Exposure Concentration in Transportation Microenvironment in Bandung, Indonesia

Delvina SINAGA[1,2+], Wiwiek SETYAWATI[3], Shih-Chun Candice LUNG[1#]
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AS35-D3-PM1-P-190 | AS35-A020

Study on the Change of Seasonal Factors to Negative Air Ion Concentration in the Xitou Forest Area

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AS35-D3-PM1-P-191 | AS35-A021

Seasonal Variation of Air Pollution in a Forest Environment

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AS40-D3-PM1-P-192 | AS40-A002

Assessment of IMERG Precipitation over Taiwan at Multiple Timescales

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AS40-D3-PM1-P-195 | AS40-A012

Assessment of WRF and IMERG Precipitation over Taiwan

Pin- Lun LI[1#+], Chia-Jeng CHEN[1]
[1]*National Chung Hsing University*

AS40-D3-PM1-P-196 | AS40-A013

Evaluation of Gridded Satellite Precipitation Products in Malaysia

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AS40-D3-PM1-P-197 | AS40-A020

Contrasting Characteristics of the Heavy Rainfall Event in July 2018 in Japan and the Northern Kyushu Heavy Rainfall Event in 2017

Yukari TAKAYABU[1#+], Hiroki TSUJI[1], Chie YOKOYAMA[1]

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AS43-D3-PM1-P-198 | AS43-A005

How Ice Cloud Optical Property Parameterizations Perturb Simulated Short-term Climate State?

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AS43-D3-PM1-P-199 | AS43-A007

Observational Relationships Between Seasonal Aerosol and Precipitation over Asian Monsoon Region

Yushan LIU[1#+], Bingqi YI[1]

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AS43-D3-PM1-P-200 | AS43-A008

Retrieval of Gridded Aerosol Direct Radiative Forcing over East China Based on Satellite and Reanalysis Datasets

Yanyu WANG[1#+], Qianshan HE[2], Tiantao CHENG[1]

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AS43-D3-PM1-P-201 | AS43-A013

Retrieval of Aerosol Optical Depth over Land Based on a Time Series Technique Using Himawari-8 Data

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AS43-D3-PM1-P-202 | AS43-A014

Role of Clouds in Accelerating Cold-season Warming During 2000-2015 over the Tibetan Plateau

Shan HUA[1#+], Yuzhi LIU[1]

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AS44-D3-PM1-P-203 | AS44-A001

Lidar Measurements of Atmosphere Boundary Layer Height (ABLH) Under Multiple-layer Conditions

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AS44-D3-PM1-P-205 | AS44-A004

Modeling Study of the Particulate Matter in Hubei Province with the WRF/Chem Model: A Case Study of January 2018

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AS44-D3-PM1-P-207 | AS44-A008

Satellite-derived PM2.5 Concentration Trends over Eastern China from 1998 to 2016: Relationships to Emissions and Meteorological Parameters

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AS44-D3-PM1-P-210 | AS44-A018

A Model Evaluation of GEOS-Chem for the Estimated Column Amount of Ozone, Sulfur Dioxide, and Aerosol Optical Depth Against for Those Retrieved from OMI and GOCI over South Korea

Hyung-Min LEE[1#], Rokjin J. PARK[1+], Myungje CHOI[2], Jhoon KIM[3]

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AS44-D3-PM1-P-211 | AS44-A020

Mesoscale Modeling Aerosol Transport over Southeast Asia: Evaluation of the 2013 Smoke Event

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AS44-D3-PM1-P-212 | AS44-A022

Geostationary Satellite Monitoring During the KORUS-AQ Campaign: The Long-range Transboundary Transport of Air Pollutants

Seoyoung LEE[1+], Jhoon KIM[1], Jaemin HONG[1], Hyunkwang LIM[1], Thomas ECK[2], Brent HOLBEN[2], Jun-Young AHN[3], Ja-Ho KOO[1#]

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AS45-D3-PM1-P-217 | AS45-A002

Simultaneous Data Assimilation of Meteorological Variables and Tracer Concentration in the Case of the Fukushima Nuclear Accident

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AS45-D3-PM1-P-219 | AS45-A005

Impact of Geostationary Ocean Color Imager Aerosol Optical Depth Assimilation on PM2.5 Prediction

Taehee KIM[1#+], Yonghee LEE[1], Jisu MYOUNG[1], Misuk JUNG[1], Insuk SUH[1], Limseok CHANG[1]

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AS45-D3-PM1-P-220 | AS45-A006

Impact of Planetary Boundary Layer Height Changes on PM10 Simulation in South Korea

Jeonghyeok MUN[1+], Hwa Woon LEE[1#], Wonbae JEON[1], JungWoo YOO[1]

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AS45-D3-PM1-P-221 | AS45-A009

Evaluation of CAMS Reanalysis of Particulate Matter and Ozone Concentration via Ground Based Measurement over Malaysia

Anis Asma AHMAD MOHTAR[1#+], Ju Neng LIEW[1], Mohd Talib LATIF[2], Jing Xiang CHUNG[1], Afiqah Bahirah AYOUB[1]

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AS45-D3-PM1-P-222 | AS45-A010

The Effect of Madden Julian Oscillation (MJO) in Modulating Surface Ozone in Peninsular Malaysia

Mary Angelina JUD[1#+], Ju Neng LIEW[1], Fredolin TANGANG[1,2], Mohd Talib LATIF[3]

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AS45-D3-PM1-P-223 | AS45-A012

Observation System Experiments with the 3DVAR Aerosol Data Assimilation System

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AS45-D3-PM1-P-224 | AS45-A014

Assessment of Aerosol Optical Properties Using WRF/Chem over India

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[1]*Indian Institute of Technology Delhi*

AS45-D3-PM1-P-225 | AS45-A017

Applicability of WRF-Chem in Simulating Air Quality Parameters over National Capital Region of India in Context of Increasing Urbanization

Ankur Prabhat SATI[1#+], Manju MOHAN[1]
[1]*Indian Institute of Technology Delhi*

AS46-D3-PM1-P-226 | AS46-A005

Role of Land Surface Schemes in Simulating Summer Surface Wind Speed Climatology over Continental China

Xin-Min ZENG[1#+]
[1]*Hohai University*

AS46-D3-PM1-P-228 | AS46-A010

Comparing Energy Budget Patterns Under Different Weather Conditions and Different Management Strategies in Tea Field

Siang-Heng WANG[1#+], Jehn-Yih JUANG[1]
[1]*National Taiwan University*

AS46-D3-PM1-P-230 | AS46-A014

A Preliminary Study on the Interaction Between Atmosphere and Land over the Typical Secondary Evergreen Broadleaf Forest in the Lingnan Region

Zhigang WEI[1#+]
[1]*Beijing Normal University*

AS46-D3-PM1-P-231 | AS46-A017

Local and Remote Effects of Deforestation on Regional Climate in Europe

Eun-Soon IM[1#+], Thanh NGUYEN-XUAN[1], Liying QIU[1], Bijian TANG[1]
[1]*The Hong Kong University of Science and Technology*

AS46-D3-PM1-P-232 | AS46-A019

Assessing the Impact of Geoengineering and Global Warming on Deciduous Fruits in Himachal Pradesh (India)

Jyoti SINGH[1#+], Sandeep SAHANY[1]
[1]*Indian Institute of Technology Delhi*

AS47-D3-PM1-P-233 | AS47-A003

Multi-instrument Observations of Elves and Their Causative Lightning Strokes Associated with a Small-scale Central European Winter Thunderstorm

Ivana KOLMASOVA[1,2#+], Ondrej SANTOLIK[1,2], Pavel SPURNY[3], Jiri BOROVICKA[3], Janusz MLYNARCZYK[4], Petr KASPAR[1], Martin POPEK[1], Andrea PIZZUTI[5], Petr ZACHAROV[1], Radek LAN[1], Ludek UHLIR[1], Alec BENNET[6], Martin FULLEKRUG[5], Gerhard DIENDORFER[7], Rudolf SLOSIAR[8]
[1]*Czech Academy of Sciences,* [2]*Charles University,* [3]*Astronomical Institute of the Czech Academy of Sciences,* [4]*AGH University of Science and Technology,* [5]*University of Bath,* [6]*Bristol Industrial and Research Associates Limited,* [7]*OVE Service GmbH,* [8]*Slovak Organization for Space Activities*

AS47-D3-PM1-P-234 | AS47-A005

Severe Hailstorm from Mesoscale Convective System in Nepal: A Case Study

Deepak ARYAL[1#+]
[1]*Central Department of Hydrology and Meteorology*

AS47-D3-PM1-P-235 | AS47-A007

The Relationship Between Vertical Airflow Characteristics and Lightning Activity of Thunderstorm

Chenxi WANG[1#+]
[1]*Chinese Meteorological Administration Training Center*

AS47-D3-PM1-P-236 | AS47-A009

A Dominant Spatiotemporal Variation of Spring Precipitation in Northeast and Southeast Asia: Its Close Relations to ENSO Variability

Chang-Kyun PARK[1+], Doo-Sun PARK[2#], Chang-Hoi HO[1], Taewon PARK[3], Jinwon KIM[4], Su-Jong JEONG[1], Baek-Min KIM[5]
[1]*Seoul National University,* [2]*Chosun University,* [3]*Chonnam National University,* [4]*Chapman University,* [5]*Korea Polar Research Institute*

AS47-D3-PM1-P-237 | AS47-A010

CFD Simulation of UAV in a Microburst Modelled with Satellite Derived Data

Gokul VISHWANATHAN[1+], Wai Lee CHAN[2#], Kenneth PRYOR[3]
[1]*TUM-Asia,* [2]*Nanyang Technological University,* [3]*NOAA National Environmental Satellite, Data, and Information Service (NESDIS)*

AS47-D3-PM1-P-238 | AS47-A011

Tropical-extratropical Interaction Associated with Tropical Cyclone Formation in the Western North Pacific: A Case Study of Peipah (2007)

Minhee CHANG[1+], Chang-Hoi HO[1#], Johnny CHAN[2], Myung-Sook PARK[3], Seok-Woo SON[1], Jinwon KIM[4]
[1]*Seoul National University,* [2]*City University of Hong Kong,* [3]*Korea Institute of Ocean Science and Technology,* [4]*Chapman University*

AS47-D3-PM1-P-239 | AS47-A012

Best-track Based Tropical Cyclone Damage Forecast

Doo-Sun PARK[1#+], Dasol KIM[2]
[1]*Chosun University,* [2]*Seoul National University*

AS47-D3-PM1-P-242 | AS47-A018

Dynamic Mechanisms of Heavy Rainfall from Afternoon Thunderstorms in Northern Taiwan

Yun-Ya CHU[1#+], Jen-Ping CHEN[1]
[1]*National Taiwan University*

Day 04

01 Aug, Thu

Day 04 - 01 Aug 2019, Thursday
Program Overview

Time / Room	AM1	AM2	PM1	PM2
	08:30 - 10:30	**11:00 - 12:30**	**13:30 - 15:30**	**16:00 - 18:00**
MR308	ST30 *p.M138*	ST05 *p.M146*	ST24; ST17 *p.M151*	ST19; ST20 *p.M159*
MR304	ST14 *p.M139*	ST14 *p.M146*	ST28 *p.M151*	ST15; ST10 *p.M160*
MR303	AS35 *p.M139*		AS21 *p.M152*	AS21 *p.M161*
MR330	HS19 *p.M140*		HS26 *p.M153*	HS12 *p.M161*
MR329	HS07 *p.M140*	HS07 *p.M147*	HS18 *p.M153*	HS18 *p.M162*
MR328	HS06 *p.M140*	HS28 *p.M147*	HS14 *p.M154*	HS17 *p.M162*
MR310	PS09 *p.M141*	PS01 *p.M147*	PS14 *p.M154*	PS14 *p.M163*
MR311	AS43 *p.M141*	AS29 *p.M148*	AS28 *p.M155*	AS28 *p.M163*
MR327	AS27 *p.M142*	AS27 *p.M148*	AS15 *p.M155*	AS45 *p.M164*
MR302	AS02 *p.M142*	AS08 *p.M148*	AS08 *p.M156*	AS47 *p.M164*
MR301	SS04 *p.M143*	PS20 *p.M149*	ST07; ST01 *p.M156*	ST01; ST07 *p.M165*
MR300	BG07; BG08 *p.M144*	BG08 *p.M149*	IG07 *p.M157*	IG07 *p.M166*
MR309	ST02 *p.M144*	ST02 *p.M150*	ST09 *p.M158*	SS02 *p.M166*
MR323	IG17 *p.M145*	IG18 *p.M150*	IG18; IG17 *p.M158*	
Nicoll 1	OS13 *p.M143*	KL-OS *p.F16* DL-OS *p.F16*	OS04 *p.M157*	OS04; OS03 *p.M165*
Nicoll 2	SE30 *p.M138*	KL-SE *p.F20* DL-SE *p.F19*		SE03 *p.M160*
Nicoll 3	AS14 *p.M145*	AS14 *p.M150*	AS14 *p.M159*	AS14 *p.M166*
EXHIBITION HALL			OS Posters *p.M168* SE Posters *p.M173*	

Sessions & Conveners

* Main Convener

AS02-Climate Change and Tropical Climatic Hazards in Asia Oceania
*Yuriy KULESHOV *Bureau of Meteorology*, David JONES *Bureau of Meteorology*

AS08-The Science and Prediciton of Heavy Precipitation and Floods
*Yali LUO *Chinese Academy of Meteorological Sciences*, Johnny CHAN *City University of Hong Kong*, Huiling YUAN *Nanjing University*

AS14-The Science and Prediction of Tropical Cyclones
*Chun-Chieh WU *National Taiwan University*, Kosuke ITO *University of the Ryukyus*, Jeff KEPERT *Centre for Australian Weather and Climate Research*, Yuqing WANG *University of Hawaii at Manoa*, Zhuo WANG *University of Illinois at Urbana-Champaign*

AS15-Urban Climate
*Shaojing JIANG *Beijing Normal University*, Jizeng DU *Beijing Normal University*, Kaicun WANG *Beijing Normal University*

AS21-Understanding Light-absorbing Carbon Aerosols Using Observations and Models
*Yuan WANG *California Institute of Technology*, Jianping GUO *Chinese Academy of Meteorological Sciences*, Byung-Gon KIM *Gangneung-Wonju National University*, Chao LIU *Nanjing University of Information Science & Technology*, Steve YIM *The Chinese University of Hong Kong*

AS27-Mountain and Island Effects on Airflow, Precipitation, Weather Systems, and Climate
*Cheng-Ku YU *National Taiwan University*, Olivier BOUSQUET *Meteo-France*, Alison D. NUGENT *University of Hawaii at Manoa*, Tetsuya TAKEMI *Kyoto University*

AS28-Theory, Observations and Modelling of Maritime Continent Weather and Climate
*Muhammad Eeqmal HASSIM *Centre for Climate Research Singapore, Meteorological Service Singapore*, Masaki KATSUMATA *Japan Agency for Marine-Earth Science and Technology*, Hanh NGUYEN *Australian Bureau of Meteorology*, Joshua QIAN *Meteorological Service Singapore*, Sandeep SAHANY *Indian Institute of Technology Delhi*

AS29-Observations and Representations of Cloud-related Processes for Improving Models
*Jonathan JIANG *Jet Propulsion Laboratory, California Institute of Technology*, Xiquan DONG *University of Arizona*, Kuan-Man XU *NASA Langley Research Center*, Chuanfeng ZHAO *Beijing Normal University*

AS35-Regional Collaborative Research on Air Pollution Sensing and Health in Asia
*Shih-Chun Candice LUNG *Academia Sinica*, Kin Fai HO *The Chinese University of Hong Kong*

AS43-Progress and Challenge in Light Scattering and Radiative Transfer About Clouds and Aerosols
*Bingqi YI *Sun Yat-sen University*, Husi LETU *Chinese Academy of Sciences*, Takashi NAKAJIMA *Tokai University*

AS45-Air Quality Modeling, Forecasting, and Data Assimilation
*Cheol-Hee KIM *Pusan National University*, Limseok CHANG *National Institute of Environmental Research*, Daisuke GOTO *NIES*, Hyo-Jung LEE *Pusan National University*, Myong-In LEE *Ulsan National Institute of Science and Technology*

AS47-Storms, Lightning, and Their Effects on Human Society
*Doo-Sun PARK *Chosun University*, Tai-Yin HUANG *Penn State Lehigh Valley*, Hyeong-Seog KIM *Korea Maritime and Ocean University*, Yukihiro TAKAHASHI *Hokkaido University*, Yoav YAIR *IDC Herzliya*

BG07-Recent Trend of Land and Ocean Biogeochemical Cycles in Asia
*Masayuki KONDO *Chiba University*, Prabir K. PATRA *Japan Agency for Marine-Earth Science and Technology*

BG08-Arsenic and Other Hazardous Elements in Water Sources
*Devanita GHOSH *Indian Institute of Science*, Laura RICHARDS *University of Manchester*, Chansopheaktra SOVANN *Royal University of Phnom Penh*

HS06-Water-related Hazards and Their Forecasting and Warning
*Gwo-Fong LIN *National Taiwan University*, Jui-Yi HO *National Science and Technology Center for Disaster Reduction*

HS07-The Third Pole Environment - Hydrometeorological Processes and Human Dimension
*Petrus (Peter) VAN OEVELEN *Global Energy and Water Exchanges (GEWEX)*, Likun AI *Chinese Academy of Sciences*, Xin LI *Chinese Academy of Sciences, China*, Yaoming MA *Chinese Academy of Sciences*

HS12-Water Resilience in Coastal Areas: Processes, Consequences, and Potentials
*Xuan YU *Sun Yat-sen University*, Philip Li-Fan LIU *National University of Singapore*, Edmond LO *Nanyang Technological University*, Onyx WAI *The Hong Kong Polytechnic University*, Jie YANG *Helmholtz Centre for Environmental Research*

HS14-Exploration of Atmospheric Water Resources
*Haiyun SHI *Southern University of Science and Technology*, Ji CHEN *The University of Hong Kong*, Bellie SIVAKUMAR *University of New South Wales*

HS17-Water-food-energy Nexus Under Uncertain Future: Data, Tools, Modelling and Knowledge Integration
*Sreekanth J *CSIRO Land and Water*, Indu J. *Indian Institute of Technology Bombay*, Mohammed MAINUDDIN *CSIRO*, Jorge PENA ARANCIBIA *Commonwealth Scientific and Industrial Research Organisation*

HS18-Ecohydrological Processes and Modelling in a Changing Environment
*Huimin LEI *Tsinghua University*, Tim MCVICAR *CSIRO*, Youngryel RYU *Seoul National University*, Bellie SIVAKUMAR *University of New South Wales*, Yuting YANG *Tsinghua University*

HS19-Observation and Modelling of Glaciers in High Mountain Asia
*Yong ZHANG *Hunan University of Science and Technology*, Koji FUJITA *Nagoya University*, Shiyin LIU *Yunnan University*, Adnan TAHIR *Department of Environmental Sciences, COMSATS University Islamabad*, Xin WANG *Hunan University of Science and Technology*

HS26-Changes in Cryospheric Hydrological Processes and Their Impacts on Sustainable Development
*Yongjian DING *Northwest Institute of Eco-Environment and Resources, Chinese Academy of Sciences*, Fengjing LIU *Michigan Technological University School of Forest Resources and Environmental Science*, Daqing YANG *National Hydrology Res Center*, Shiqiang ZHANG *Northwest University*, Tingjun ZHANG *Lanzhou University*

HS28-Hydrological Impacts of Typhoons on Watershed Ecosystems
*Jr-Chuan HUANG *National Taiwan University,* Seiya NAGAO *Kanazawa University,* Hideaki SHIBATA *Field Science Center for Northern Biosphere, Hokkaido University,* Maki TSUJIMURA *University of Tsukuba*

IG07-Interdisciplinary Research on Water-related Disasters and Practical Applications for Disaster Risk Reduction
*Anawat SUPPASRI *Tohoku University,* Sivapragasam CHANDRASEKARAN *Kalasalingam Academy of Research and Education,* Natt LEELAWAT *Chulalongkorn University,* Adam SWITZER *Nanyang Technological University,* Srivatsan VIJAYARAGHAVAN *National University of Singapore*

IG17-Carbon dioxide sequestration and utilization (CCUS) in energy geosciences
*Qi LI *Chinese Academy of Sciences,* Matthew MYERS *Commonwealth Scientific and Industrial Research Organisation,* Masao SORAI *National Institute of Advanced Industrial Science and Technology*

IG18-Tropical Hydroclimate Changes Since the Late Pleistocene
*Shufang YUAN *Nanyang Technological University,* Yudha DJAMIL *Nanyang Technological University,* Keyan FANG *Fujian Normal University,* Ke LIN *Nanyang Technological University,* Guangxin LIU *Nanyang Technological University*

OS03-Changing Climate and Adjusting Ecosystem in the Arctic and Antarctic Ocean
*Meibing JIN *Nanjing University of Information Science & Technology,* Xuezhi BAI *Hohai University,* Hao WEI *Tianjin University*

OS04-Extreme Events: Tropical Cyclones, Intense Rainfall, Dust Storm in the Warming Environment of the Asia-oceania Region
*Narayana A. C. *University of Hyderabad,* Prasanna Kumar SUKUMARAN *National Institute of Oceanography*

OS13-General and Multidisciplinary Oceanography
*Charles LEMCKERT *University of Canberra,* Serena LEE *Griffith University*

PS01-Impact Cratering: Bridging the Gap in Nature, Experiment, Modeling, and Application
*Meng-Hua ZHU *Macau University of Science and Technology,* Masahiko ARAKAWA *Kobe University,* Wenzhe FA *Peking University,* Elena MARTELLATO *Natural History Museum, Berlin,* Jeffrey PLESCIA *Johns Hopkins University*

PS09-In Cosmic Dust We Truly Trust
*Hsiang-Wen HSU *University of Colorado Boulder,* Hidehiro KANEDA *Department of Physics, Nagoya University,* Aigen LI *Department of Physics and Astronomy, University of Missouri, Columbia, MO,* Zhong Yi LIN *National Central University*

PS14-Small Body Explorations by Current and Future Missions
*Jian-Yang LI *Planetary Science Institute,* Jiangchuan HUANG *China Academy of Space Technology,* Yangting LIN *Institute of Geology and Geophysics, Chinese Academy of Science,* Makoto YOSHIKAWA *Japan Aerospace Exploration Agency*

PS20-Outer Planet Satellites: Geologic Processes and Habitability
*Anezina SOLOMONIDOU *ESA European Space Agency,* Mathieu CHOUKROUN *Jet Propulsion Laboratory, California Institute of Technology,* Athena COUSTENIS *Paris Observatory/ French National Center for Scientific Research/ PSL Research University,* Jun KIMURA *Osaka University,* Rosaly LOPES-GAUTIER *Jet Propulsion Laboratory, California Institute of Technology*

ST01-Systems Science Approaches to Heliophysics Modeling and Data Analysis
*Simon WING *The Johns Hopkins University,* Jay JOHNSON *Andrews University*

ST02-Sun-earth System Response to Extreme Solar Events
*Balan NANAN *Shandong University,* Nat GOPALSWAMY *NASA Goddard Space Flight Center,* Yoshiharu OMURA *Kyoto University,* Qing-He ZHANG *Shandong University*

ST05-From the Heliosphere to Interstellar Exploration
*Linghua WANG *Peking University,* George HO *The Johns Hopkins University Applied Physics Laboratory,* Zhuoxi HUO *Qian Xuesen Laboratory of Space Technology*

ST07-Solar Super Storms: in the Past, Present and Future
*C. Alex YOUNG *NASA Goddard Space Flight Center,* James GREEN *NASA Headquarters*

ST09-Cross-scale Couplings in Magnetospheric Boundary Layers: From Kinetic to MHD Scales
*Keizo FUJIMOTO *Beihang University,* Dongsheng CAI *University of Tsukuba,* Giovanni LAPENTA *KU Leuven,* Bertrand LEMBEGE *National Center for Scientific Research/University of Versailles Saint-Quentin-en-Yvelines/Institute Pierre Simon Laplace*

ST10-The Magnetopause and the Dayside Solar Wind - Magnetosphere Interaction
*Ramon LOPEZ *University of Texas at Arlington,* Chi WANG *Chinese Academy of Sciences*

ST14-Space Weather Forecasts: Methods, Issues and Future Development
*Larry PAXTON *The Johns Hopkins University Applied Physics Laboratory,* Tzu-Wei FANG *University of Colorado Boulder,* Yongliang ZHANG *The Johns Hopkins University Applied Physics Laboratory*

ST15-MHD Waves and Instabilities in the Solar Atmosphere: Identification and Modelling
*Viktor FEDUN *The University of Sheffield,* Wernher BREVIS *Pontificia Universidad Catolica de Chile,* Sergiy SHELYAG *Deakin University,* Marco STANGALINI *National Institute for Astrophysics,* Gary VERTH *The University of Sheffield*

ST17-The Dynamic Loss of Earth's Radiation Belts: from Loss in the Magnetosphere to Particle Precipitation in the Atmosphere
*Maria USANOVA *University of Colorado Boulder,* Thiago BRITO *University of Helsinki ,* Allison JAYNES *The University of Iowa*

ST19-Hemispheric Symmetry and Asymmetry in the Solar-terrestrial Coupling
*Elizabeth MITCHELL *The Johns Hopkins University Applied Physics Laboratory,* Kan LIOU *The Johns Hopkins University Applied Physics Laboratory,* Jeng-Hwa YEE *The Johns Hopkins University Applied Physics Laboratory*

ST20-Solar Flare Forecasting Using Machine Learning
*Long XU *Chinese Academy of Sciences,* Robertus ERDELYI *The University of Sheffield,* Xin HUANG *Chinese Academy of Sciences*

ST24-Dynamic Coupling Between Waves and Plasmas in the Inner Magnetosphere and Its Feedback on Ionospheric Electrodynamics
*Natalia BUZULUKOVA *NASA Goddard Space Flight Center,* Mei-Ching FOK *NASA Goddard Space Flight Center,* Jerry GOLDSTEIN *SWRI/University of Texas,* Vyacheslav PILIPENKO *Institute of physics of the Earth, Moscow,* Maria USANOVA *University of Colorado Boulder*

ST28-Radio Heliophysics from Sun to Mud: How Radio Techniques can be Used to Study the Chain of Activity from Solar Origin to its Effects at Earth and Other Solar-System Bodies
*Mario BISI *United Kingdom Research and Innovation - Science & Technology Facilities Council,* Richard FALLOWS *ASTRON - The Netherlands Institute for Radio Astronomy,* Bernard JACKSON *University of California, San Diego,* Jasmina MAGDALENIC ZHUKOV *Royal Observatory of Belgium,* Yihua YAN *Chinese Academy of Sciences*

ST30-Multiscale Ionosphere Structuring Processes and Related Impact on Technology
*Shasha ZOU *University of Michigan,* Ercha AA *University of Michigan,* Qing-He ZHANG *Shandong University,* Shunrong ZHANG *Massachusetts Institute of Technology*

SE03-EPreparation Process of Earthquakes and Related Phenomena - Potential Precursory Anomalies, Earthquake Hydrology, Geochemistry and Other Phenomena Related to Induced and Natural Earthquakes
*Fuqiong HUANG *China Earthquake Administration,* Huihong CHENG *University of Chinese Academy of Sciences,* Peng HAN *Southern University of Science and Technology,* Yasuyuki KANO *The University of Tokyo,* Han YUE *Beijing University*

SE30-Tectonics and Geohazards in the Western Pacific: Geologic Models and Geophysical Constraints
*Leo ARMADA *University of the Philippines Diliman,* Carla DIMALANTA *University of the Philippines Diliman,* Shu-Kun HSU *National Central University*

SS02-The Brewer-Dobson and Hadley Circulations in a Changing Climate: Evolution and Impacts
*Richard ECKMAN *National Aeronautics and Space Administration,* Shigeo YODEN *Kyoto University*

SS04-Oceans
*Jack KAYE *NASA Earth Science Division,* Philip Li-Fan LIU *National University of Singapore*

ST30 / Multiscale Ionosphere Structuring Processes and Related Impact on Technology

Thu - 01 Aug | MR308

Time 08:30-10:30
Chair(s) Shasha ZOU, *University of Michigan*
Qing-He ZHANG, *Shandong University*

ST30-D4-AM1-308-001 | ST30-A004 (Invited)

Understanding Multi-scale Ionospheric Structuring Processes in the Polar Ionosphere Using GNSS Measurements Alone
P. T. JAYACHANDRAN[1#+]
[1]University of New Brunswick

ST30-D4-AM1-308-002 | ST30-A006 (Invited)

Modeling Metal Ions and Sporadic E in the Ionosphere with SAMI3
Joseph HUBA[1#+], Jon KRALL[2], Douglas DROB[2]
[1]Syntek Technologies, [2]Naval Research Laboratory

ST30-D4-AM1-308-003 | ST30-A012 (Invited)

Medium-scale Traveling Ionospheric Disturbances Observed by World-wide GPS Receiver Networks During Stratospheric Sudden Warming
Yuichi OTSUKA[1#+], Atsuki SHINBORI[1], Prayitno ABADI[2], Takuya TSUGAWA[3], Michi NISHIOKA[3]
[1]Nagoya University, [2]Indonesian National Institute of Aeronautics and Space (LAPAN), [3]National Institute of Information and Communications Technology

ST30-D4-AM1-308-004 | ST30-A007 (Invited)

Ionospheric Plasma Structuring in the Cusp Ionosphere: In-situ Observations by Norsat-1 Satellite
Yaqi JIN[1#+], Jøran MOEN[1], Lasse CLAUSEN[1], Andres SPICHER[1], Magnus IVARSEN[1]
[1]University of Oslo

ST30-D4-AM1-308-005 | ST30-A010

On the Sources of Cusp Ionospheric Scintillation Irregularities
Andres SPICHER[1#+], Kjellmar OKSAVIK[2], Yaqi JIN[1], Jøran MOEN[1], Lisa BADDELEY[2], Lasse CLAUSEN[1]
[1]University of Oslo, [2]University of Bergen

ST30-D4-AM1-308-006 | ST30-A009

Modeling of the F2 Layer Stratification on Ionograms by a Raytracing Method
Chunhua JIANG[1#+], Guobin YANG[1], Zhao ZHENGYU[1]
[1]Wuhan University

ST30-D4-AM1-308-007 | ST30-A008

Geospace System Responses During the September 7, 2017 Geomagnetic Storm
Shasha ZOU[1#+], Zihan WANG[2], Jiaen REN[1], Thomas COPPEANS[1], Ercha AA[1,3], Aaron RIDLEY[1], Gabor TOTH[1], Tamas GOMBOSI[1]
[1]University of Michigan, [2]Peking University, [3]Chinese Academy of Sciences

SE30 / Tectonics and Geohazards in the Western Pacific: Geologic Models and Geophysical Constraints

Thu - 01 Aug | Nicoll 2

Time 08:30-10:30
Chair(s) Leo ARMADA, *University of the Philippines Diliman*

SE30-D4-AM1-Nicoll 2-001 | SE30-A009 (Invited)

Tracing the Polyphase Arc-continent Collision in Western Philippines: Biostratigraphic and Petrological Constraints
Karlo QUEAÑO[1#+], Carla DIMALANTA[2], Edanjarlo MARQUEZ[3], Leo ARMADA[2], Jillian Aira GABO-RATIO[2], Graciano YUMUL JR.[4]
[1]Ateneo de Manila University, [2]University of the Philippines Diliman, [3]University of the Philippines Manila, [4]Apex Mining Company Inc.

SE30-D4-AM1-Nicoll 2-002 | SE30-A002

Tectonics and Earthquakes in the Transition Zone from Plate Collision to Subduction, Off Eastern Taiwan
Shu-Kun HSU[1#+], Shiou-Ya WANG[1], Yi-Ching YEH[1], Ching-Hui TSAI[1], Chin-Wei LIANG[1], Yen-Yu CHO[1]
[1]National Central University

SE30-D4-AM1-Nicoll 2-003 | SE30-A004

Tectonic Setting of the Macolod Corridor (Luzon Island, Philippines): Implications to Rifting and Associated Geohazards
Leo ARMADA[1#+], Carla DIMALANTA[1], Shu-Kun HSU[2], Wen-Bin DOO[2], Edd Marc REYES[1], Rurik AUSTRIA[1], Graciano YUMUL JR.[3]
[1]University of the Philippines Diliman, [2]National Central University, [3]Apex Mining Company Inc.

SE30-D4-AM1-Nicoll 2-004 | SE30-A011

Influence of Pre-existing Structures on the Seismotectonic Environment of the Northern Manila Subduction Zone
Jing-Yi LIN[1#+], Shao-Jinn CHIN[1], Yi-Ching YEH[1]
[1]National Central University

SE30-D4-AM1-Nicoll 2-005 | SE30-A005

Potential Field Signatures of the Cretaceous Cebu Arc, Philippines
Carla DIMALANTA[1#+], Nathaniel PARCUTELA[1], Leo ARMADA[1], Betchaida PAYOT[1], Jillian Aira GABO-RATIO[1], Karlo QUEAÑO[2], Noelynna RAMOS[3], Graciano YUMUL, JR.[4,5]
[1]University of the Philippines Diliman, [2]Ateneo de Manila University, [3]University of the Philippines, [4]Monte Oro Resources & Energy, Inc., [5]Apex Mining Co. Inc.

SE30-D4-AM1-Nicoll 2-006 | SE30-A013

Submarine Landslide and Seafloor Erosion in the Upper Stream of Kaoping Submarine Canyon: Dense 2D High Resolution Marine Sparker Seismic Survey
Yi-Ching YEH[1#+], Wei-Chung HSIAO[1], Chung-Lin TSAI[1], Shu-Kun HSU[1], Yen-Yu CHO[1], Chin-Wei LIANG[1]
[1]National Central University

SE30-D4-AM1-Nicoll 2-007 | SE30-A007

Persistent Inclination Anomaly Recorded in 5-0 Ma Volcanic Rocks in the Philippines
Decibel FAUSTINO-ESLAVA[1#+], Hidetoshi SHIBUYA[2], Carla DIMALANTA[3], Graciano YUMUL JR. [4]
[1]University of the Philippines, [2]Kumamoto University, [3]University of the Philippines Diliman, [4]Apex Mining Company Inc.

SE30-D4-AM1-Nicoll 2-008 | SE30-A001

Continuous GPS Observations Along the West Valley Fault in Metro Manila, Philippines
Ruey-Juin RAU[1#+], Choon-Muar KER[1], Kuo-En CHING[1], Geno SAPLA[2], Teresito BACOLCOL[2], Renato SOLIDUM[2]
[1]National Cheng Kung University, [2]Philippine Institute of Volcanology and Seismology

ST14 / Space Weather Forecasts: Methods, Issues and Future Development

Thu - 01 Aug | MR304

Time 08:30-10:30
Chair(s) Larry PAXTON, *The Johns Hopkins University Applied Physics Laboratory*
Tzu-Wei FANG, *University of Colorado Boulder*

ST14-D4-AM1-304-001 | ST14-A010 (Invited)

Forecasting the Magnitude and Direction of the Solar Wind Magnetic Field Following Earth-directed Coronal Mass Ejections
Nat GOPALSWAMY[1#+]
[1]NASA Goddard Space Flight Center

ST14-D4-AM1-304-002 | ST14-A007

Predicting Magnetic Fields in Earth-impacting Coronal Mass Ejections Using Data-driven Modelling
E. KILPUA[1#+], Jens POMOELL[1], Erkka LUMME[1], Daniel PRICE[1], Diana MOROSAN[1], Eleanna ASVESTARI[1], Simon GOOD[1], Matti ALALAHTI[1], Milla KALLIOKOSKI[1], Harriet GEORGE[1]
[1]University of Helsinki

ST14-D4-AM1-304-003 | ST14-A013 (Invited)

Predicting Interplanetary Shocks Using Low-energy Ions: A Real-time Interplanetary Shock Prediction System
George HO[1#+]
[1]The Johns Hopkins University Applied Physics Laboratory

ST14-D4-AM1-304-004 | ST14-A012

Statistical and Observational Research of Solar Flare Spectra for Total Emission Spectra Prediction Model
Kyoko WATANABE[1#+], Shohei NISHIMOTO[1], Shinsuke IMADA[2], Tomoko KAWATE[3], Kyoung-Sun LEE[4], Mitsuru MATSUMURA[2]
[1]National Defense Academy of Japan, [2]Nagoya University, [3]Japan Aerospace Exploration Agency, [4]National Astronomical Observatory of Japan

ST14-D4-AM1-304-005 | ST14-A008 (Invited)

Dynamic Variation of Earth's Outer Radiation Belt Due to Whistler-mode Chorus and EMIC Waves
Yoshiharu OMURA[1#+]
[1]Kyoto University

ST14-D4-AM1-304-006 | ST14-A009 (Invited)

Ring Current Prediction: Challenges and Developments
Mei-Ching FOK[1#+]
[1]NASA Goddard Space Flight Center

ST14-D4-AM1-304-007 | ST14-A011

Unfolding Method for Particle Detector Spectrums on GEO-KOMPSAT-2A
Yuchul SHIN[1#+], Sungmin PAK[1], Go Woon NA[1], Jongho SEON[1]
[1]Kyung Hee University

AS35 / Regional Collaborative Research on Air Pollution Sensing and Health in Asia

Thu - 01 Aug | MR303

Time 08:30-10:30
Chair(s) Shih-Chun Candice LUNG, *Academia Sinica*
Kin Fai HO, *The Chinese University of Hong Kong*

AS35-D4-AM1-303-001 | AS35-A014

Assessment of Air Quality in Different Microenvironments Using Personal Low-cost PM2.5 Sensors and Associations with Health Outcomes in Singapore
Yue Qian TAN[1], Rashid SK ABDUR[1], Liya YU[1], Wei Jie SEOW[1#+]
[1]National University of Singapore

AS35-D4-AM1-303-002 | AS35-A005 (Invited)

Building Urban Resilience: A Systems Approach to Analyzing Social and Personal Health Risks of Jeepney Commuters and Drivers to PM2.5 in Metro Manila, Philippines
Melliza CRUZ[1#], Maria Obiminda CAMBALIZA[2+], C. Kendra GOTANGCO[1,2], Shih-Chun Candice LUNG[3], James Bernard SIMPAS[1], John WONG[2], Rene Marlon PANTI[2], Emma PORIO[2], Imee DELOS REYES[2], Bernell GO[1], Katrina ABENOJAR[2], Carlos Rosauro MANALO[2], Krizelle FOWLER[1]
[1]Manila Observatory, [2]Ateneo De Manila University, [3]Academia Sinica

AS35-D4-AM1-303-003 | AS35-A013 (Invited)

Carbon Monoxide (CO) Exposure to the Urban Commuter in Bandung City, Indonesia
Wiwiek SETYAWATI[1#+], Delvina SINAGA[2,3], Nur Faizah ROMADONA[4], Emalya Rachmawati RACHMAN[5], Shih-Chun Candice LUNG[2], Eddy HERMAWAN[1], Puji LESTARI[6]
[1]National Institute of Aeronautics and Space (LAPAN), [2]Academia Sinica, [3]National Central University, [4]Indonesian Education University, [5]Ministry of Environment and Forestry, [6]Bandung Institute of Technology

AS35-D4-AM1-303-004 | AS35-A007 (Invited)

Air Pollution in Myanmar Rural Ecosystem: The Issue Being Neglected So Far
Ohnmar May TIN HLAING[1#+], Yenaung HTUN[1]
[1]Environmental Quality Management Co., Ltd

AS35-D4-AM1-303-005 | AS35-A004

Poor Air Quality Leading to High Health Risk in the Himalayan Urban Region: A Study with Low-cost Sensors
Sanat Kumar DAS[1#+], Uma DAS[2], Abhijit CHATTERJEE[1], Sanjay K. GHOSH[1], Chen Jeih PAN[3], Sibaji RAHA[1]
[1]Bose Institute, [2]Indian Institute of Information Technology Kalyani, [3]National Central University

AS35-D4-AM1-303-006 | AS35-A016

Possible Association Between Heart Rate and Air Pollution Exposure: An Observation from Metro Area Adult During Cardio Activity
Shihyu LEE[1#+], Shih-Chun Candice LUNG[1], Tzu-Yao CHUANG[2]
[1]Academia Sinica, [2]China Medical University Hospital

HS19 / Observation and Modelling of Glaciers in High Mountain Asia

Thu - 01 Aug | MR330

Time 08:30-10:30
Chair(s) Yong ZHANG, *Hunan University of Science and Technology*

HS19-D4-AM1-330-001 | HS19-A005 (Invited)

Glacier Runoff Simulation Under Climate Change by an Energy Balance Model for Individual Glaciers on a Continental-scale
Shinjiro KANAE[1#], Orie SASAKI[1+], Koji FUJITA[2], Yukiko HIRABAYASHI[3]
[1]Tokyo Institute of Technology, [2]Nagoya University, [3]Shibaura Institute of Technology

HS19-D4-AM1-330-002 | HS19-A003 (Invited)

Glacier Hazards in Recent Years in High Mountains Asia
Donghui SHANGGUAN[1#+]
[1]Northwest Institute of Eco-Environment and Resources, Chinese Academy of Sciences

HS19-D4-AM1-330-003 | HS19-A017

Mass Balance of Trambau Glacier, Rolwaling Region, Nepal Himalaya: In-situ Observations, Long-term Reconstruction and Mass-balance Sensitivity
Koji FUJITA[1#+]
[1]Nagoya University

HS19-D4-AM1-330-004 | HS19-A004

Glacier Changes and Surges over Xinqingfeng and Malan Ice Caps in the Inner Tibetan Plateau Since 1970
Zhen ZHANG[1#+], Shiyin LIU[2], Zongli JIANG[3], Junfeng WEI[3]
[1]Anhui University of Science and Technology, [2]Yunnan University, [3]Hunan University of Science and Technology

HS19-D4-AM1-330-005 | HS19-A014

Global Warming Impacts on Glacier Dynamics in the Himalayan Basin
Ankur DIXIT[1#+], Sandeep SAHANY[1]
[1]Indian Institute of Technology Delhi

HS19-D4-AM1-330-006 | HS19-A009

Inconsistent Changes of Glaciers and its Heterogeneous Controlling Factors in the Longbasaba Lake Region, Himalayas Based on Multi-source Remote Sensing Data
Xuanru ZHAO[1#+], Xin WANG[1]
[1]Hunan University of Science and Technology

HS19-D4-AM1-330-007 | HS19-A015

Glacier Retreat, Glacial Lake Changes and Glacial Lake Outburst Floods Inventory in the Himalayas
Yong NIE[1#+], Qiao LIU[2], Jida WANG[3], Yongwei SHENG[4], Shiyin LIU[5]
[1]Institute of Mountain Hazards and Environment, Chinese Academy of Sciences, [2]Chinese Academy of Sciences, [3]Kansas State University, [4]University of California, Los Angeles, [5]Yunnan University

HS19-D4-AM1-330-008 | HS19-A001

Estimation of Surface Energy Fluxes in the Permafrost Region of the Tibetan Plateau Based on Situ Measurements and TESEBS Model
Jimin YAO[1#+], Lianglei GU[1], Ren LI[2], Lin ZHAO[2], Yongjian DING[1,3]
[1]Northwest Institute of Eco-Environment and Resources, Chinese Academy of Sciences, [2]Chinese Academy of Sciences, [3]University of Chinese Academy of Sciences

HS07 / The Third Pole Environment - Hydrometeorological Processes and Human Dimension

Thu - 01 Aug | MR329

Time 08:30-10:30
Chair(s) Petrus (Peter) VAN OEVELEN, *Global Energy and Water Exchanges (GEWEX)*

HS07-D4-AM1-329-001 | HS07-A004

Estimation of River Discharge Solely from Remote-sensing Derived Data
Lei WANG[1#+], Arthur SICHANGI[1]
[1]Chinese Academy of Sciences

HS07-D4-AM1-329-002 | HS07-A007

Impact of Lake Outburst on Permafrost Change in Hoh Xil Area on the Qinghai-Tibet Plateau, China
Changwei XIE[1#+]
[1]Cold and Arid Regions Environmental and Engineering Research Institute, Chinese Academy of Sciences

HS07-D4-AM1-329-003 | HS07-A008 (Invited)

Understanding the Integrated Hydrological Regimes over the Tibetan Plateau: Flow, Sediment and Reactive Transport
Fan ZHANG[1#+], Xiaonan SHI[1], Chen ZENG[1], Xiong XIAO[1], Guanxing WANG[1]
[1]Chinese Academy of Sciences

HS07-D4-AM1-329-004 | HS07-A012

Investigation on Mountain Glacier Ice Storage of "Pakistan Water Tower" and its Changes During 2000-2016 Combine Ground and Satellite Observation
Yinsheng ZHANG[1#+], Xiaojuan ZOU[1], Haifeng GAO[1]
[1]Chinese Academy of Sciences

HS07-D4-AM1-329-005 | HS07-A002

Shrinking "Water Tower" in Central Asia
Yaning CHEN[1#+], Zhi LI[2], Gonghuan FANG[2]
[1]Xinjiang Institute of Ecology and Geography, Chinese Academy of Sciences, [2]Chinese Academy of Sciences

HS07-D4-AM1-329-006 | HS07-A003

Regionalization of Land Surface Heat Fluxes and Evapotranspiration over Heterogeneous Landscape of the Third Pole
Yaoming MA[1#+], Cunbo HAN[1], Binbin WANG[1]
[1]Chinese Academy of Sciences

HS06 / Water-related Hazards and Their Forecasting and Warning

Thu - 01 Aug | MR328

Time 08:30-10:30
Chair(s) Gwo-Fong LIN, *National Taiwan University*
Jui-Yi HO, *National Science and Technology Center for Disaster Reduction*

HS06-D4-AM1-328-001 | HS06-A002 (Invited)

Analyzing the Influence of Gully on Urban Flooding Through Coupled Overland–gully–sewer Flow Model
Jiun-Huei JANG[1#+]
[1]National Cheng Kung University

HS06-D4-AM1-328-002 | HS06-A006

Characterization and Risk Assessment of Drought Hazards in Guangdong Province, China
Yongqin David CHEN[1,2#+]
[1]The Chinese University of Hong Kong, Shenzhen, [2]The Chinese University of Hong Kong

HS06-D4-AM1-328-003 | HS06-A012

Applying High Resolution Satellite Rainfall Product in the Operational Flash Flood Forecasting System
Apimook MOOKTAREE[1#+], Ticha LOLUPIMAN[2], Theerapol CHAROENSUK[2], Watin THANATHANPHON[2], Narongrit LUANGDILOK[2], Sathit CHANTIP[2], Piyamarn SISOMPHON[2]
[1]Hydro-Informatics Institute, [2]Hydro and Agro Informatics Institute

HS06-D4-AM1-328-004 | HS06-A007

Monitoring and Prediction of Flood Events Using Online Community Data
Jeongha LEE[1,2+], Seok Hwan HWANG[2#], Byung-Hwa OH[1,2]
[1]University of Science and Technology, [2]Korea Institute of Civil Engineering and Building Technology

HS06-D4-AM1-328-005 | HS06-A009

Data Driven Flood Forecasting Model with Hybrid Activation Function - A Case Study for Hangang River, South Korea
Hyung-Ju YOO[1+], Dong Hyun KIM[1], Hong-Teak KIM[1], Seungoh LEE[1#]
[1]Hongik University

HS06-D4-AM1-328-006 | HS06-A003

A Discussion on the Intertial Forces in Urban Flood Simulation
Tien-Hao CHANG[1#+], Jiun-Huei JANG[1]
[1]National Cheng Kung University

HS06-D4-AM1-328-007 | HS06-A004

Practice of Employing Vibration-based Scour Detection Technology in a Field Application
Xiao-Qin LIU[1#+], Yung-Bin LIN[1], Kuo-Chun CHANG[2]
[1]National Center for Research on Earthquake Engineering, [2]National Taiwan University

HS06-D4-AM1-328-008 | HS06-A019

Assessment of Flood Risk in a Coastal City Due to the Combined Impact of Extreme Rainfall and Storm Surge
B. SRIDHARAN[1], Soumendra Nath KUIRY[1#+]
[1]Indian Institute of Technology Madras

PS09 / In Cosmic Dust We Truly Trust

Thu - 01 Aug | MR310

Time 08:30-10:30
Chair(s) Hsiang-Wen HSU, *University of Colorado Boulder*

PS09-D4-AM1-310-001 | PS09-A009 (Invited)

Dust Environment on Asteroid Surfaces Explored by Sample Return Spacecraft and Landers
Hajime YANO[1,2#+]
[1]Japan Aerospace Exploration Agency, [2]Massachusetts Institute of Technology

PS09-D4-AM1-310-002 | PS09-A007 (Invited)

The Surficial Dust Environment at the Asteroid Bennu and Implications for Electrostatic Dust Motion
Christine HARTZELL[1#+], Michael ZIMMERMAN[2], Dante LAURETTA[3], OSIRIS-REx TEAM[4]
[1]University of Maryland, [2]The Johns Hopkins University Applied Physics Laboratory, [3]The University of Arizona, [4]University of Arizona

PS09-D4-AM1-310-003 | PS09-A001

Laboratory Measurements of Initial Conditions of Electrostatically Lofted Dust Particles on Airless Bodies
Xu WANG[1#+], Noah HOOD[1], Anthony CARROLL[1], Ryan MIKE[1], Hsiang-Wen HSU[1], Mihaly HORANYI[1]
[1]University of Colorado Boulder

PS09-D4-AM1-310-004 | PS09-A008 (Invited)

Interstellar Dust as Learned from AKARI
Takashi ONAKA[1#+]
[1]Meisei University

PS09-D4-AM1-310-005 | PS09-A011 (Invited)

Interstellar Dust, Polarization and Grain Alignment
Thiem HOANG[1#+]
[1]Korea Astronomy and Space Science Institute

PS09-D4-AM1-310-006 | PS09-A014 (Invited)

Evolution of Dust Revealed by High-sensitivity IR Spectroscopy with SPICA
Issei YAMAMURA[1#], Takafumi OOTSUBO[1+]
[1]Japan Aerospace Exploration Agency

PS09-D4-AM1-310-007 | PS09-A005

The 13C/12C Ratio in the Dust of Comet 67P/Churyumov-Gerasimenko
John PAQUETTE[1#+], Martin HILCHENBACH[1], Cecile ENGRAND[2], Nicolas FRAY[3]
[1]Max Planck Institute for Solar System Research, [2]Center for Nuclear Science and Matter Sciences, [3]Interuniversity Laboratory of Atmospheric Systems

PS09-D4-AM1-310-008 | PS09-A016

The Widespread Presence of Nanometer-size Dust Grains in the Interstellar Medium of Galaxies
Yanxia XIE[1#+]
[1]Peking University

AS43 / Progress and Challenge in Light Scattering and Radiative Transfer About Clouds and Aerosols

Thu - 01 Aug | MR311

Time 08:30-10:30
Chair(s) Bingqi YI, *Sun Yat-sen University*
Husi LETU, *Chinese Academy of Sciences*

AS43-D4-AM1-311-001 | AS43-A001 (Invited)

Cloud Longwave Scattering: A Missing Link in Current Models for Realistic Atmosphere and Surface Radiative Couplings
Xianglei HUANG[1#+], Yi-Hsuan CHEN[1], Xiuhong CHEN[1], Ping YANG[2], Wuyin LIN[3]
[1]University of Michigan, [2]Texas A&M University, [3]Brookhaven National Laboratory

AS43-D4-AM1-311-002 | AS43-A003 (Invited)

Towards a New Generation of Physically Consistent Ice Crystal Scattering Models
Anthony BARAN[1#+]
[1]*Met Office & University of Hertfordshire*

AS43-D4-AM1-311-003 | AS43-A009 (Invited)

Aerosol Radiative Effects on Cloud Remote Sensing
Chuanfeng ZHAO[1#+]
[1]*Beijing Normal University*

AS43-D4-AM1-311-004 | AS43-A002

Optical Modeling of Atmospheric Aerosols in a Super-spheroidal Space: A Review
Lei BI[1#+]
[1]*Zhejiang University*

AS43-D4-AM1-311-005 | AS43-A004

Impact of Aerosol Vertical Profile and Optical Parameters on the Accuracy of Satellite AOD Retrieval
Jing LI[1#+]
[1]*Peking University*

AS43-D4-AM1-311-006 | AS43-A012

Aerosol Composition and Vertical Profile Retrievals Using Multi-angle, Hyperspectral Measurements of the Oxygen A-band
Vijay NATRAJ[1#+], Zhao-Cheng ZENG[1], Tianhao LE[1], Feng XU[1], Stanley SANDER[1], Yuk YUNG[1]
[1]*California Institute of Technology*

AS43-D4-AM1-311-007 | AS43-A011

Estimation of Surface Shortwave Radiation from Himawari-8 Satellite Measurement
Husi LETU[1#+]
[1]*Chinese Academy of Sciences*

AS43-D4-AM1-311-008 | AS43-A010

Assessment of the Cloud Properties in Atmospheric Reanalysis with Satellite Cloud Observations
Bin YAO[1#+], Chao LIU[1]
[1]*Nanjing University of Information Science & Technology*

AS27 / Mountain and Island Effects on Airflow, Precipitation, Weather Systems, and Climate

Thu - 01 Aug | MR327

Time 08:30-10:30
Chair(s) Cheng-Ku YU, *National Taiwan University*

AS27-D4-AM1-327-001 | AS27-A017 (Invited)

Improvement of the Heavy Orographic Rainfall Retrievals in the GSMaP Algorithm for Microwave Radiometers Considering Cloud and Precipitation Processes
Shoichi SHIGE[1#+], Munehisa YAMAMOTO[1]
[1]*Kyoto University*

AS27-D4-AM1-327-002 | AS27-A002 (Invited)

The Early Collapse of the 2017 Lincoln Sea Ice Arch in Response to Orographic Wind Forcing Along Nares Strait
Kent MOORE[1#+], Kaitlin MCNEIL[2]
[1]*University of Toronto Mississauga,* [2]*University of Toronto*

AS27-D4-AM1-327-003 | AS27-A001

Importance of Terrain Representation in Simulating a Heavy-rain-producing, Stationary Convective System: A Case Study
Tetsuya TAKEMI[1#+]
[1]*Kyoto University*

AS27-D4-AM1-327-004 | AS27-A006

Statistical Characteristics of Taiwan Rainbands in the Outer Typhoon Environment
Che-Yu LIN[1#+], Cheng-Ku YU[1]
[1]*National Taiwan University*

AS27-D4-AM1-327-005 | AS27-A009

Exploring Topographic Effects and Their Seasonal Variations on Fine Spatial Scale Rainfall Distribution over Mountainous Terrain Using Statistical Methods: Mae Sa, Northern Thailand
Han TSENG[1#+], Russell YOST[1], Yin-Phan TSANG[1], Alan ZIEGLER[2]
[1]*University of Hawaii at Manoa,* [2]*National University of Singapore*

AS27-D4-AM1-327-006 | AS27-A015

Effects of Three-dimensional Terrain Features on Rainfall Intensity and Distribution
Wei-Fan LIU[1#+], Cheng-Ku YU[1]
[1]*National Taiwan University*

AS02 / Climate Change and Tropical Climatic Hazards in Asia Oceania

Thu - 01 Aug | MR302

Time 08:30-10:30
Chair(s) Yuriy KULESHOV, *Bureau of Meteorology*

AS02-D4-AM1-302-001 | AS02-A002

WMO Space-based Weather and Climate Extremes Monitoring Demonstration Project (SEMDP): First Outcomes of Regional Cooperation on Drought and Heavy Precipitation Monitoring for Australia and South-East Asia
Yuriy KULESHOV[1,2#+]
[1]*Bureau of Meteorology,* [2]*Royal Melbourne Institute of Technology*

AS02-D4-AM1-302-002 | AS02-A006

Impact of Solar Radio Flux on Precipitation in China
Yan SONG[1#+], Zhicai LI[2], Ziniu XIAO[3], Yu GU[4]
[1]*China Meteorological Administration,* [2]*Shanxi Climate Centre,*
[3]*Chinese Academy of Sciences,* [4]*University of California, Los Angeles*

AS02-D4-AM1-302-003 | AS02-A010

Future Changes in Precipitation Extremes over South Peninsular India as Investigated from NEX-GDDP Model Simulations
Koteswararao KUNDETI[1#+], Savita PATWARDHAN[1], Ashwini KULKARNI[1]
[1]*Indian Institute of Tropical Meteorology*

AS02-D4-AM1-302-004 | AS02-A009

Environment Quality and Climate Change in Asia: From the 20th to the 21st Century
Venkatachalam RAMASWAMY[1#+], Yi MING[1]
[1]*National Oceanic and Atmospheric Administration*

AS02-D4-AM1-302-005 | AS02-A014

MERRA-2 Data and Analytic Services at NASA GES DISC for Climate Extremes Study

Suhung SHEN[1,2#+], Dana OSTRENGA[3,4], Bruce VOLLMER[3], Angela LI[3], David MEYER[1]

[1]NASA Goddard Space Flight Center, [2]George Mason University, [3]NASA Goddard Earth Sciences Data and Information Services Center, [4]Adnet Systems

AS02-D4-AM1-302-006 | AS02-A013

Investigating West North Pacific Typhoons in a High-resolution Climate Model

Kevin REED[1#+], Xiaoning WU[1], Julio BACMEISTER[2]

[1]Stony Brook University, [2]National Center for Atmospheric Research

AS02-D4-AM1-302-007 | AS02-A015

Understanding Heat Extremes in China: From Synoptics to Climate Change

Ming LUO[1#+], Gabriel LAU[2]

[1]Sun Yat-sen University, [2]The Chinese University of Hong Kong

AS02-D4-AM1-302-008 | AS02-A001

Climate Risk and Early Warning Systems (CREWS): Enhancing Drought Monitoring and Early Warning Systems for Papua New Guinea

Yuriy KULESHOV[1,2#+]

[1]Bureau of Meteorology, [2]Royal Melbourne Institute of Technology

SS04 / Oceans

Thu - 01 Aug | MR301

Time 08:30-10:30

Chair(s) Jack KAYE, *NASA Earth Science Division*

SS04-D4-AM1-301-001 | SS04-A001 (Invited)

The North Atlantic Aerosols and Marine Ecosystems Study (NAAMES)

Michael BEHRENFELD[1#+]

[1]Oregon State University

SS04-D4-AM1-301-002 | SS04-A002 (Invited)

Observations and Model Assimilation Using GCOM-C/SGLI and Himawari-8/AHI in the Western Pacific Ocean

Hiroshi MURAKAMI[1#+], Misako KACHI[1], Nodoka ONO[1], Yukio KURIHARA[1], Yasumasa MIYAZAWA[2], Toru MIYAMA[2], Tsutomu HIHARA[2], Hidenori AIKI[3], Shun OHISHI[3]

[1]Japan Aerospace Exploration Agency, [2]Japan Agency for Marine-Earth Science and Technology, [3]Nagoya University

SS04-D4-AM1-301-003 | SS04-A003 (Invited)

Korea's Geostationary Ocean Color Program - Toward Transboundary Collaboration

Young-Je PARK[1#+], Seongick CHO[1], Hee-Jeong HAN[1]

[1]Korea Institute of Ocean Science and Technology

SS04-D4-AM1-301-004 | SS04-A004 (Invited)

COral Reef Airborne Laboratory: A New Perspective on Coral Reefs

Eric HOCHBERG[1#+]

[1]Bermuda Institute of Ocean Sciences

OS13 / General and Multidisciplinary Oceanography

Thu - 01 Aug | Nicoll 1

Time 08:30-10:30

Chair(s) Serena LEE, *Griffith University*

OS13-D4-AM1-Nicoll 1-001 | OS13-A002

High-precision Positioning and Navigation Method for Ocean Applications with BeiDou Short Message Communication

Zhiteng ZHANG[1+], Bofeng LI[1#]

[1]Tongji University

OS13-D4-AM1-Nicoll 1-002 | OS13-A003

Acoustic Imaging of Multibeam Water Column Data and its Application in the Marine Science Investigation

Qiuhua TANG[1#+]

[1]Ministry of Natural Resources

OS13-D4-AM1-Nicoll 1-003 | OS13-A005

Examining the Annual Bloom Intensity of the Giant Jellyfish Off the Coast of Korea Based on Lagrangian Particle Tracking Method

Young-Heon JO[1#+]

[1]Pusan National University

OS13-D4-AM1-Nicoll 1-004 | OS13-A006

Internal Waves and Mixing Around the Luzon Strait

Akie SAKAI[1#+], Tomoharu SENJYU[2], Eisuke TSUTSUMI[2], Takeshi MATSUNO[1], Takahiro ENDO[2]

[1]Kyushu University, [2]Research Institute for Applied Mechanics

OS13-D4-AM1-Nicoll 1-005 | OS13-A007

Monitoring of Phytoplankton Blooms in the Western Subarctic Pacific by Autonomous Ocean Observation Platforms

Tetsuichi FUJIKI[1#+], Shigeki HOSODA[1], Naomi HARADA[1]

[1]Japan Agency for Marine-Earth Science and Technology

OS13-D4-AM1-Nicoll 1-006 | OS13-A001

Temporal and Vertical Variations of Phytoplankton Observed by BGC-Argo Floats in the South China Sea

Xiaogang XING[1#+], Guoqiang QIU[2], Emmanuel BOSS[3], Haili WANG[2]

[1]Second Institute of Oceanography, [2]Xiamen University, [3]University of Maine

OS13-D4-AM1-Nicoll 1-007 | OS13-A008

Investigation on Utilizing the Seasonally Varying Wave Power Along Indian Coastline Using an Integrated Wave Energy Absorption System

Krishnendu PUZHUKKIL[1#+]

[1]Indian Institute of Technology Bombay

OS13-D4-AM1-Nicoll 1-008 | OS13-A010

Wind Power on Oceanic Near-inertial Oscillations in the Global Ocean Estimated from Surface Drifters

Yongzheng LIU[1#+], Zhao JING[1], Lixin WU[1]

[1]Ocean University of China

BG07 / Recent Trend of Land and Ocean Biogeochemical Cycles in Asia
BG08 / Arsenic and Other Hazardous Elements in Water Sources

Thu - 01 Aug | MR300

Time 08:30-10:30

Chair(s) Masayuki KONDO, *Chiba University*
Laura RICHARDS, *University of Manchester*
Prosun BHATTACHARYA, *KTH Royal Institute of Technology*
Devanita GHOSH, *Indian Institute of Science*

BG07-D4-AM1-300-001 | BG07-A003

Indian Ocean Acidification and Trends
Vinu VALSALA[1#+], Sreeush M. G.[1], Sreenivas PENTAKOTA[1], Raghu MURTUGUDDE[2]
[1]Indian Institute of Tropical Meteorology, [2]University of Maryland

BG07-D4-AM1-300-002 | BG07-A004

Estimation of Community Compensation Depth for Ocean Carbon Models: Comparison Between Biological Parameterization and Bayesian Statistical Inversion
Sreeush M.G.[1#+], Vinu VALSALA[1], Sreenivas PENTAKOTA[1], Prasad K.V.S.R.[2], Raghu MURTUGUDDE[3]
[1]Indian Institute of Tropical Meteorology, [2]Andhra University, [3]University of Maryland

BG07-D4-AM1-300-003 | BG07-A002

The Net Methane Footprint of Plantation Forestry on Tropical Peatland – East Sumatra, Indonesia
Chandrashekhar DESHMUKH[1#+], Dony JULIUS[2], Nardi NARDI[2], Ankur DESAI[3]
[1]Asia Pacific Resources International Limited (APRIL), Indonesia, [2]APRIL Group, [3]University of Wisconsin-Madison

BG07-D4-AM1-300-004 | BG07-A005

Methane Growth Rate Variation in Regards of its Sources and Sinks During 2000-2016
Jagat S. H. BISHT[1#+], Naveen CHANDRA[1], Prabir K. PATRA[1,2], Akihiko ITO[3], Shinji MORIMOTO[2], Taku UMEZAWA[3], Edward J. DLUGOKENCKY[4], Greet JANSSENS-MAENHOUT[5], Masayuki TAKIGAWA[1], Shingo WATANABE[1], Ryo FUJITA[6], Shuji AOKI[2], Naoko SAITOH[7], Nobuko SAIGUSA[3]
[1]Japan Agency for Marine-Earth Science and Technology, [2]Tohoku University, [3]National Institute for Environmental Studies, [4]NOAA ESRL Global Monitoring Division, [5]Institute for Environment and Sustainability, [6]Imperial College London, [7]Chiba University

BG07-D4-AM1-300-005 | BG07-A006

Paris Agreement: Tracking of Greenhouse Gases (CO2, CH4 and N2O) by Inverse Modelling
Prabir K. PATRA[1,2#+], Naveen CHANDRA[1], Jagat S. H. BISHT[1]
[1]Japan Agency for Marine-Earth Science and Technology, [2]Tohoku University

BG08-D4-AM1-300-006 | BG08-A002

Directed Synthesis, Comprehensive Characterization and Exploration of Dearsenification Potential of B-cyclodextrin Fortified Hydrous Iron-zirconium Hybrid Oxide
Indranil SAHA[1#+], Bibhuti Bhushan SHOW[2], Abir GHOSH[3]
[1]Sripat Singh College, [2]Jadavpur University, [3]Calcutta University

BG08-D4-AM1-300-007 | BG08-A009

Colorimetric Determination for Selective Adsorption of Zn and Other Hazardous Metals in Aqueous Media Using Ion Imprinted Polymer
Sunyoung BAE[1#+], Yelin LEE[1], Soyoung AHN[1], Hyeyoung JUNG[1]
[1]Seoul Women's University

ST02 / Sun-earth System Response to Extreme Solar Events

Thu - 01 Aug | MR309

Time 08:30-10:30

Chair(s) Balan NANAN, *Shandong University*
Nat GOPALSWAMY, *NASA Goddard Space Flight Center*

ST02-D4-AM1-309-001 | ST02-A014 (Invited)

Origin and Early Dynamics of Extreme Flux Ropes Near the Sun
Tingyu GOU[1#+], Rui LIU[1], Bernhard KLIEM[2], Yuming WANG[1], Astrid VERONIG[3]
[1]University of Science and Technology of China, [2]University of Potsdam, [3]University of Graz

ST02-D4-AM1-309-002 | ST02-A008 (Invited)

Extreme Interplanetary Coronal Mass Ejections and Their Impact at Earth
E. KILPUA[1#+]
[1]University of Helsinki

ST02-D4-AM1-309-003 | ST02-A009 (Invited)

Extreme-value Geoelectric Amplitude and Polarization Across the Northeast United States
Jeffrey LOVE[1#+], Greg LUCAS[1], Paul BEDROSIAN[1], Anna KELBERT[1]
[1]US Geological Survey

ST02-D4-AM1-309-004 | ST02-A019 (Invited)

Different Flux Evolutions of Relativistic Electrons of the Outer Belt Associated with High-speed Coronal Hole Streams; Arase and Van Allen Probes Observations
Yoshizumi MIYOSHI[1#+], Satoshi KURITA[1], Ryuho KATAOKA[2], Shing SAITO[1], Vania JORDANOVA[3], Iku SHINOHARA[4], Takefumi MITANI[4], Takeshi TAKASHIMA[4], Nana HIGASHIO[4], Satoshi KASAHARA[5], Shoichiro YOKOTA[6], Tomoaki HORI[1], Kunihiro KEIKA[5], Yoshiya KASAHARA[7], Shoya MATSUDA[4], Atsushi KUMAMOTO[8], Fuminori TSUCHIYA[8], Masafumi SHOJI[1], Ayako MATSUOKA[4], Mariko TERAMOTO[1], Harlan SPENCE[9], Geoffrey REEVES[3], Daniel BAKER[10]
[1]Nagoya University, [2]National Institute of Polar Research, [3]Los Alamos National Laboratory, [4]Japan Aerospace Exploration Agency, [5]The University of Tokyo, [6]Osaka University, [7]Kanazawa University, [8]Tohoku University, [9]University of New Hampshire, [10]University of Colorado Boulder

ST02-D4-AM1-309-005 | ST02-A006

Penetration of Stormtime Electric Fields to the Low Latitude Ionosphere as Observed with HF Doppler Sounders and Magnetometers
Takashi KIKUCHI[1#+], Kumiko HASHIMOTO[2], Ichiro TOMIZAWA[3]
[1]Nagoya University, [2]Kibi International University, [3]University of Electro-Communications

ST02-D4-AM1-309-006 | ST02-A007

Characteristics of Temporal and Spatial Evolutions of the Ionosphere and Plasmasphere During Major Geomagnetic Storms Observed by GNSS-TEC and Arase Observations
Atsuki SHINBORI[1#+], Yuichi OTSUKA[1], Takuya SORI[1], Takuya TSUGAWA[2], Michi NISHIOKA[2], Atsushi KUMAMOTO[3], Fuminori TSUCHIYA[3], Shoya MATSUDA[4], Yoshiya KASAHARA[5], Ayako MATSUOKA[4]
[1]Nagoya University, [2]National Institute of Information and Communications Technology, [3]Tohoku University, [4]Japan Aerospace Exploration Agency, [5]Kanazawa University

ST02-D4-AM1-309-007 | ST02-A001

A Derived Parameter IpsDst of Dst Storms and its Space Weather Applications
Balan NANAN[1,2#+]
[1]Shandong University, [2]The University of Sheffield

IG17 / Carbon Dioxide Sequestration and Utilization (CCUS) in Energy Geosciences

Thu - 01 Aug | MR323

Time 08:30-10:30
Chair(s) Qi LI, *Chinese Academy of Sciences*
Matthew MYERS, *Commonwealth Scientific and Industrial Research Organisation*

IG17-D4-AM1-323-001 | IG17-A008 (Invited)

Adsorption Associated Geological Carbon Storage: From Laboratory to Field
Xu TANG[1#+]
[1]University of Nottingham

IG17-D4-AM1-323-002 | IG17-A002 (Invited)

Calculation of the Wettability of CO2/Brine/Mineral System by Augmented Young Laplace Equation
Masashige SHIGA[1#+], Masao SORAI[1], Masaatsu AICHI[2], Hiromi HONDA[2]
[1]National Institute of Advanced Industrial Science and Technology, [2]The University of Tokyo

IG17-D4-AM1-323-003 | IG17-A006 (Invited)

Impacts of CO2 Sorption and Dehydration Induced Matrix Swellings on the Alteration of Caprock Sealing Efficiency
Jianguo WANG[1#+], Huimin WANG[1], Bowen HU[1]
[1]China University of Mining and Technology

IG17-D4-AM1-323-004 | IG17-A003

Change in Sealing Performance of Carbonate-containing Artificial Caprocks
Masao SORAI[1#+]
[1]National Institute of Advanced Industrial Science and Technology

IG17-D4-AM1-323-005 | IG17-A007

Micro-CT Characterization of the Reaction Between Wellbore Cement and Sulfuric Acid in CO2 Geological Storage Environment
Manguang GAN[1+], Liwei ZHANG[1#], Xiuxiu MIAO[1], Yan WANG[1], Xiaochun LI[1]
[1]Chinese Academy of Sciences

IG17-D4-AM1-323-006 | IG17-A020

CO2-brine-rock Interaction and its Impacts on Sealing Efficiency of Sand Caprock
Bin LIU[1#+]
[1]Northeast Petroleum University

IG17-D4-AM1-323-007 | IG17-A021

Evaluating the Mud Weight Window in Drilling Engineering Based on Response Surface Analysis Method
Xiaochen WEI[1+], Jiawei SHEN[1], Xiangjun LIU[1#], Lixi LIANG[1]
[1]Southwest Petroleum University

AS14 / The Science and Prediction of Tropical Cyclones

Thu - 01 Aug | Nicoll 3

Time 08:30-10:30
Chair(s) Dong-Hyun CHA, *Ulsan National Institute of Science and Technology*

AS14-D4-AM1-Nicoll 3-001 | AS14-A029 (Invited)

Comparison of Tropical Cyclone Forecast Skills Between Global and Regional Models and Application of Spectral Nudging
Jihong MOON[1], Dong-Hyun CHA[1#+]
[1]Ulsan National Institute of Science and Technology

AS14-D4-AM1-Nicoll 3-002 | AS14-A017 (Invited)

Topographic Effects of a Mountain Range on Westbound Tropical Cyclones Under Vertical Wind Shears as Revealed by Idealized Simulations
Ching-Yuang HUANG[1#+]
[1]National Central University

AS14-D4-AM1-Nicoll 3-003 | AS14-A039

Empirical Models for Predicting the Seasonal Accumulated Tropical Cyclone Kinetic Energy in Taiwan and Philippine Regions
Mong-Ming LU[1#+], Ching-Teng LEE[2], Ana Liza S. SOLIS[3], Chung-Hsiung SUI[1]
[1]National Taiwan University, [2]Central Weather Bureau, [3]Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA)

AS14-D4-AM1-Nicoll 3-004 | AS14-A042 (Invited)

Advancements in Hurricane Prediction with NOAA's Next Generation Forecast System
Jan-Huey CHEN[1,2#+]
[1]University Corporation for Atmospheric Research, [2]NOAA Geophysical Fluid Dynamics Laboratory

AS14-D4-AM1-Nicoll 3-005 | AS14-A005

Multivariate Ensemble Sensitivity Analysis for Typhoon Haiyan (2013)
Lili LEI[1#+]
[1]Nanjing University

AS14-D4-AM1-Nicoll 3-006 | AS14-A019

Prediction Skill of West Pacific Tropical Cyclones in the Met Office Operational Model
Nicholas KLINGAMAN[1,2#+], Kevin HODGES[2], Simon PEATMAN[3]
[1]National Centre for Atmospheric Science, [2]University of Reading, [3]University of Leeds

AS14-D4-AM1-Nicoll 3-007 | AS14-A022

Tropical Cyclone Removal Technique Based on Potential Vorticity Inversion and its Application in Climate Diagnostics
Sho ARAKANE[1#+], Huang-Hsiung HSU[1]
[1]Academia Sinica

AS14-D4-AM1-Nicoll 3-008 | AS14-A024 (Invited)

Thermodynamic Characteristics and Temporal Evolutions of the Tropical Cyclones Throughout Their Life-cycles
Zhen ZENG[1#+], Richard ANTHES[1], Hailing ZHANG[1], Sergey SOKOLOVSKIY[1]
[1]University Corporation for Atmospheric Research

ST05 / From the Heliosphere to Interstellar Exploration

Thu - 01 Aug | MR308

Time 11:00-12:30

Chair(s) George HO, *The Johns Hopkins University Applied Physics Laboratory*
Linghua WANG, *Peking University*

ST05-D4-AM2-308-001 | ST05-A002 (Invited)

Near-term Interstellar Probe: The First Dedicated Step
Ralph MCNUTT[1#+], Robert WIMMER-SCHWEINGRUBER[2], Mike GRUNTMAN[3], Stamatios KRIMIGIS[4], Edmond ROELOF[4], Pontus BRANDT[4], Elena PROVORNIKOVA[4], Carey M. LISSE[4], Kirby RUNYON[4], Kathleen MANDT[4], Abigail RYMER[4], Steven VERNON[4], Michael PAUL[4], Robert STOUGH[5]
[1]Johns Hopkins Applied Physics Laboratory, [2]University of Kiel, [3]University of Southern California, [4]The Johns Hopkins University Applied Physics Laboratory, [5]NASA Marshall Space Flight Center

ST05-D4-AM2-308-002 | ST05-A003 (Invited)

Interstellar Heliosphere Probes (IHPs)
Qiugang ZONG[1#+]
[1]Peking University

ST05-D4-AM2-308-003 | ST05-A006 (Invited)

Scientific Opportunities of the Next Neptune Flyby in a New Interstellar Probe Mission
Wing-Huen IP[1#+], Lianghai XIE[2], Ying LIAO[2], Liang Liang YU[2], Hua-Shan SHI[1]
[1]National Central University, [2]Macau University of Science and Technology

ST05-D4-AM2-308-004 | ST05-A007 (Invited)

Exploring the Unseen: Search for Extra-heliospheric ENAs on an Interstellar Probe
Stas BARABASH[1#+], Martin WIESER[1], Vladislav IZMODENOV[2]
[1]Swedish Institute of Space Physics, [2]Space Research Institute

ST05-D4-AM2-308-005 | ST05-A001

PKU Energetic Neutral Atom Imager
Linghua WANG[1#+], Qiugang ZONG[1], Yongfu WANG[1], Hongfei CHEN[1], Zou HONG[1], Xiangqian YU[1], Yuguang YE[1], Gordon HURFORD[2], John SAMPLE[3], George PARKS[2]
[1]Peking University, [2]University of California, Berkeley, [3]Montana State University

ST05-D4-AM2-308-006 | ST05-A009

How Can We Investigate the Physical Properties of Density Structures Outside of the Heliopause?
Jeewoo PARK[1#+], Harald KUCHAREK[2], Adam SZABO[3], Nikolaos PASCHALIDIS[4]
[1]University of Maryland, Baltimore County, [2]University of New Hampshire, [3]National Aeronautics and Space Administration, [4]NASA Goddard Space Flight Center

ST14 / Space Weather Forecasts: Methods, Issues and Future Development

Thu - 01 Aug | MR304

Time 11:00-12:30

Chair(s) Larry PAXTON, *The Johns Hopkins University Applied Physics Laboratory*
Tzu-Wei FANG, *University of Colorado Boulder*

ST14-D4-AM2-304-001 | ST14-A015 (Invited)

Global-scale Observations of the Limb and Disk (GOLD) Mission Measurements and Space Weather Forecasting
Richard EASTES[1#+]
[1]University of Colorado Boulder

ST14-D4-AM2-304-002 | ST14-A022 (Invited)

Day-to-day Variability of Ionospheric Pre-reversal Enhancement Under Constant Solar and Geomagnetic Conditions
Hanli LIU[1#+]
[1]National Center for Atmospheric Research

ST14-D4-AM2-304-003 | ST14-A005 (Invited)

Penetration Electric Field During Geomagnetic Storm: Observations and Mechanisms
Chaosong HUANG[1#+]
[1]Air Force Research Laboratory

ST14-D4-AM2-304-004 | ST14-A016

Assimilating Thermospheric Data Across a Variety of Spatial and Temporal Scales
Marcin PILINSKI[1#+], G. CROWLEY[2], Matt SEATON[2], Eric SUTTON[1]
[1]University of Colorado Boulder, [2]Atmospheric & Space Technology Research Associates

ST14-D4-AM2-304-005 | ST14-A023

Space Weather in the Ionosphere
Larry PAXTON[1#+], Yongliang ZHANG[1], Hyosub KIL[1], Robert SCHAEFER[1]
[1]The Johns Hopkins University Applied Physics Laboratory

ST14-D4-AM2-304-006 | ST14-A001

A Scheme for Forecasting Severe Space Weather
Balan NANAN[1,2#+], Y EBIHARA[3], Ruth SKOUG[4], Tulasi Ram SUDARSANAM[5]
[1]Shandong University, [2]The University of Sheffield, [3]Kyoto University, [4]Los Alamos National Laboratory, [5]Indian Institute of Geomagnetism

HS07 / The Third Pole Environment - Hydrometeorological Processes and Human Dimension

Thu - 01 Aug | MR329

Time 11:00-12:30
Chair(s) Yaoming MA, *Chinese Academy of Sciences*

HS07-D4-AM2-329-001 | HS07-A015

Evaluation of Snow Depth and Snow Cover over the Tibetan Plateau in Global Reanalyses Using In-situ and Satellite Remote Sensing Observations
Yvan ORSOLINI[1#+], Martin WEGMANN[2], Emanuel DUTRA[3], Boqi LIU[4], Gianpaolo BALSAMO[5], Kun YANG[6], Patricia DE ROSNAY[5], Congwen ZHU[4], Wenli WANG[7], Retish SENAN[5]
[1]Norwegian Institute of Air Research, [2]Alfred Wegener Institute, [3]Universidade de Lisboa, [4]Chinese Academy of Meteorological Sciences, [5]European Centre for Medium-Range Weather Forecasts, [6]Chinese Academy of Sciences, [7]Beijing Normal University

HS07-D4-AM2-329-002 | HS07-A022

Missions and Key Questions of New Asian Monsoon Hydroclimatological Project, Post MAHASRI
Toru TERAO[1#+], Shinjiro KANAE[2], Jun MATSUMOTO[3,4]
[1]Kagawa University, [2]Tokyo Institute of Technology, [3]Tokyo Metropolitan University / JAMSTEC, [4]Japan Agency for Marine-Earth Science and Technology

HS07-D4-AM2-329-003 | HS07-A024

The WCRP Water for the Food Baskets Grand Challenge and the Third Pole Environment
Petrus (Peter) VAN OEVELEN[1#+], Roy RASMUSSEN[2], Jan POLCHER[3], Alexander RUANE[4]
[1]Global Energy and Water Exchanges (GEWEX), [2]National Center for Atmospheric Research, [3]Dynamic Meteorology Laboratory, [4]NASA Goddard Institute for Space Studies

HS07-D4-AM2-329-004 | HS07-A025

Evaluations and Improvements of GLDAS2.0 and GLDAS2.1 Forcing Data for Applying in Tibetan Plateau Regions
Junguo LIU[1#+]
[1]Southern University of Science and Technology

HS07-D4-AM2-329-005 | HS07-A027

How Does Temporal Trend of Reference Evapotranspiration over the Tibetan Plateau Change with Elevation?
Xiaotao ZHANG[1#+]
[1]Chinese Academy of Sciences

HS28 / Hydrological Impacts of Typhoons on Watershed Ecosystems

Thu - 01 Aug | MR328

Time 11:00-12:30
Chair(s) Shinya OCHIAI, *Kanazawa University*
Yung-Chia CHIU, *National Taiwan Ocean University*

HS28-D4-AM2-328-001 | HS28-A003 (Invited)

High Resilience of a Subtropical Forest Watershed in Taiwan to Frequent Typhoon Disturbance
Teng-Chiu LIN[1], Chung-Te CHANG[2], Jr-Chuan HUANG[3#+]
[1]National Taiwan Normal University, [2]Tunghai University, [3]National Taiwan University

HS28-D4-AM2-328-002 | HS28-A013 (Invited)

Variability of Suspension Transport and Event Sand Deposition in the Beppu Bay, the Southwestern Japan
Tomohisa IRINO[1#+], Ken IKEHARA[2], Masanobu YAMAMOTO[1], Michinobu KUWAE[3]
[1]Hokkaido University, [2]National Institute of Advanced Industrial Science and Technology, [3]Ehime University

HS28-D4-AM2-328-003 | HS28-A010

Change of Recharge Process and Age of Spring and Groundwater Caused by Thinning and Rainstorms in a Headwater Catchment Underlain by Sedimentary Rock
Maki TSUJIMURA[1#+], Isabela SILVEIRA BAPTISTA[1], Koki KASHIWA[1], Yuichi ONDA[1], Marino HIRAOKA[1]
[1]University of Tsukuba

HS28-D4-AM2-328-004 | HS28-A002

The Coupled Effects of Typhoon, Non-typhoon Events and Landcover Gradients on Nutrient Budgets in a Mountainous Watershed, Northern Taiwan
Chung-Te CHANG[1#+], Yu-Ting SHIH[2], Ting-Chang HSU[3], Teng-Chiu LIN[4]
[1]Tunghai University, [2]National Taiwan University, [3]Academia Sinica, [4]National Taiwan Normal University

HS28-D4-AM2-328-005 | HS28-A006

Typhoon-induced Soil Erosion Inferred from Reservoir Sediment Observation in a Mud Rock Area in Southern Taiwan
Shinya OCHIAI[1#+], J.C. LIN[2], Kenji KASHIWAYA[1]
[1]Kanazawa University, [2]National Taiwan University

PS01 / Impact Cratering: Bridging the Gap in Nature, Experiment, Modeling, and Application

Thu - 01 Aug | MR310

Time 11:00-12:30
Chair(s) Meng-Hua ZHU, *Macau University of Science and Technology*

PS01-D4-AM2-310-001 | PS01-A001 (Invited)

Not Just Fresh Basalt: Other Protoliths in Addition to Bedrock Basalt from Lonar Crater, India
Shawn WRIGHT[1#+]
[1]The University of Hong Kong

PS01-D4-AM2-310-002 | PS01-A004 (Invited)

Multi-wavelength Observations of Ejecta Blanket Degradation on the Lunar Surface
Angela STICKLE[1#+], Wes PATTERSON[1], Joshua CAHILL[1], Benjamin GREENHAGEN[1], Jennifer GRIER[2]
[1]The Johns Hopkins University Applied Physics Laboratory, [2]Planetary Science Institute

PS01-D4-AM2-310-003 | PS01-A002

Thickness Distribution of Primary Ejecta for Schrödinger Basin
Luyuan XU[1#+], Minggang XIE[1]
[1]Macau University of Science and Technology

PS01-D4-AM2-310-004 | PS01-A003 (Invited)

Automatic Extraction of Lunar Central Peak Craters by Deep Learning
Satoshi HARA[1#+], Hiroka INOUE[2], Mitsuo YAMAMOTO[2], Yukio YAMAMOTO[2], Makiko OHTAKE[2], Hisashi OTAKE[2], Tetsuya ARAKI[1], Masaharu HIROTA[3], Hiroshi ISHIKAWA[1]
[1]Tokyo Metropolitan University, [2]Japan Aerospace Exploration Agency, [3]Okayama University of Science

PS01-D4-AM2-310-005 | PS01-A005

Relax of the Large-scale Impact Structures on the Moon
Xiangyu XI[1#+], Meng-Hua ZHU[1]
[1]Macau University of Science and Technology

AS29 / Observations and Representations of Cloud-related Processes for Improving Models

Thu - 01 Aug | MR311

Time 11:00-12:30
Chair(s) Chuanfeng ZHAO, *Beijing Normal University*

AS29-D4-AM2-311-001 | AS29-A011 (Invited)

Evaluation of Cloud Microphysics Development and Resolution Refinement in Global Models with Regionally Refined Mesh and Super Parameterization in Simulating Mesoscale Convective Systems
Jiwen FAN[1#+], Zhe FENG[1], Guangxing LIN[1], Jingyu WANG[1], Kai ZHANG[1], Erika ROESLER[2], Benjamin HILLMAN[2]
[1]Pacific Northwest National Laboratory, [2]Sandia National Laboratory

AS29-D4-AM2-311-002 | AS29-A001

CMIP6 Climate Model Improvements in Clouds and Water Vapor Simulations
Jonathan JIANG[1#+], Hui SU[1]
[1]Jet Propulsion Laboratory, California Institute of Technology

AS29-D4-AM2-311-003 | AS29-A002

Arctic Clouds Simulated by a Multiscale Modeling Framework with an Advanced Third-order Turbulence Closure
Kuan-Man XU[1#+], Zhujun LI[2]
[1]NASA Langley Research Center, [2]Science Systems and Applications, Inc.

AS29-D4-AM2-311-004 | AS29-A003

Estimation of Errors in 1D Solar Radiation Transfer Solution for Different Cloud Regimes
Qi TANG[1#+], Michael PRATHER[2], Shaocheng XIE[1]
[1]Lawrence Livermore National Laboratory, [2]University of California Irvine

AS29-D4-AM2-311-005 | AS29-A004

Cloud Retrieval from Surface Using Zenith Radiances
Pradeep KHATRI[1#+], Hironobu IWABUCHI[1], Tadahiro HAYASAKA[1], Hitoshi IRIE[2], Tamio TAKAMURA[2], Akihiro YAMAZAKI[3], Alessandro DAMIANI[2]
[1]Tohoku University, [2]Chiba University, [3]Japan Meteorological Agency

AS29-D4-AM2-311-006 | AS29-A009

The New CERES Fluxbycldtyp Data and its Simulator: Algorithm, Validation and Application
Moguo SUN[1#+], David DOELLING[2], Zachary EITZEN[1], Cathy NGUYEN[1], Joshua WILKINS[1], Pamela MLYNCZAK[1]
[1]Science Systems and Applications, Inc., [2]NASA Langley Research Center

AS27 / Mountain and Island Effects on Airflow, Precipitation, Weather Systems, and Climate

Thu - 01 Aug | MR327

Time 11:00-12:30
Chair(s) Tetsuya TAKEMI, *Kyoto University*

AS27-D4-AM2-327-001 | AS27-A019

Characteristics of Orographic Rainfall in the Southern Slope of the Meghalaya Plateau, Northeast India
Fumie MURATA[1#+], Toru TERAO[2], Hatsuki FUJINAMI[3], Kaustav CHAKRAVARTY[4], Hiambok J. SYIEMLIEH[5], Laitpharlang CAJEE[5], Laitpharlang CAJEE[5]
[1]Kochi University, [2]Kagawa University, [3]Nagoya University, [4]Indian Institute of Tropical Meteorology, [5]North-Eastern Hill University

AS27-D4-AM2-327-002 | AS27-A014

Surface Wind Verification of Meso-scale Dynamic Downscaling System (MDDS) over Complex Topography in Taiwan
Jen-Hsin TENG[1#+], Chien-Hsuen WANG[1], Chiou BING KUI[1], Yuanfu XIE[2]
[1]Central Weather Bureau, [2]Chinese Academy of Meteorological Sciences

AS27-D4-AM2-327-003 | AS27-A008

Spatial Variations and Mechanisms of Wintertime Orographic Precipitation over the Da-Tun Mountain
Lin-Wen CHENG[1#+], Cheng-Ku YU[1]
[1]National Taiwan University

AS27-D4-AM2-327-004 | AS27-A023

Orographic Effects of Heavy Rainfall Event in Mei-Yu Season
Mu-Qun HUANG[1#+], Pay-Liam LIN[1], Yuh-Lang LIN[2]
[1]National Central University, [2]North Carolina A&T State University

AS27-D4-AM2-327-005 | AS27-A007

Climate Modulation of the Tibetan Plateau with Large Topography on Haze in Eastern China by Thermal Forcing
Xiaodan MA[1#+], Xiangde XU[2], Tianliang ZHAO[1], Xiaoyun SUN[1]
[1]Nanjing University of Information Science & Technology, [2]Chinese Academy of Meteorological Sciences

AS27-D4-AM2-327-006 | AS27-A018

Climate Change Impact on the Relationship Between Extreme Precipitation Events and Temperature over Japan
Sridhara NAYAK[1#+], Tetsuya TAKEMI[1]
[1]Kyoto University

AS08 / The Science and Prediciton of Heavy Precipitation and Floods

Thu - 01 Aug | MR302

Time 11:00-12:30
Chair(s) Johnny CHAN, *City University of Hong Kong*
Xindong PENG, *Chinese Academy of Meteorological Sciences*

AS08-D4-AM2-302-001 | AS08-A021 (Invited)

Global Rainfall Assessment of a Non-hydrostatic Model on Quasi-uniform Grids
Xindong PENG[1#+], Xiaohan LI[1], Yifan ZHAO[1]
[1]Chinese Academy of Meteorological Sciences

AS08-D4-AM2-302-002 | AS08-A032

Relationships Between Typhoon Track, Size, and Motion Speed and Probabilistic Quantitative Precipitation Forecast Performance
Hsu-Feng TENG[1#+], James DONE[1], Ying-Hwa KUO[2], Cheng-Shang LEE [3]
[1]National Center for Atmospheric Research, [2]National Center for Atmospheric Research/University Corporation for Atmospheric Research, [3]National Taiwan University

AS08-D4-AM2-302-003 | AS08-A028

Observed Linkage of Extreme Hourly Rainfall Frequency to Urbanizations over the Yangtze River Delta
Xiaoling JIANG[1+], Yali LUO[1#], Da-Lin ZHANG[2]
[1]Chinese Academy of Meteorological Sciences, [2]University of Maryland

AS08-D4-AM2-302-004 | AS08-A031

Projection of the Daily Precipitation Using CDF-T Method at Meteorological Observation Site Scale
Wu WEI[1#+]
[1]Shanghai Climate Center

PS20 / Outer Planet Satellites: Geologic Processes and Habitability

Thu - 01 Aug | MR301

Time 11:00-12:30
Chair(s) Anezina SOLOMONIDOU, *ESA European Space Agency*
Mathieu CHOUKROUN, *Jet Propulsion Laboratory, California Institute of Technology*

PS20-D4-AM2-301-001 | PS20-A004 (Invited)

Cryovolcanism in Icy Ocean Worlds: Perspective from Models of Radial Structure
Steven VANCE[1#+]
[1]Jet Propulsion Laboratory, California Institute of Technology

PS20-D4-AM2-301-002 | PS20-A005 (Invited)

Eruption Characteristics on Jupiter's Moon Io from Observations of Active Lava Lakes at Kilauea, Hawaii
Jani RADEBAUGH[1#+], Rosaly LOPES-GAUTIER[2]
[1]Brigham Young University, [2]Jet Propulsion Laboratory, California Institute of Technology

PS20-D4-AM2-301-003 | PS20-A003

Microwave Radiometer Sensing of Volcanism
Ralph LORENZ[1#+]
[1]The Johns Hopkins University Applied Physics Laboratory

PS20-D4-AM2-301-004 | PS20-A002

Habitability of Hydrocarbon Worlds: Titan and Beyond
Rosaly LOPES[1#+], Michael MALASKA[1]
[1]Jet Propulsion Laboratory, California Institute of Technology

PS20-D4-AM2-301-005 | PS20-A001

Monitoring Titan's Surface Albedo Changes with Radiative Transfer Analysis of VIMS Data for 10 Years
Anezina SOLOMONIDOU[1#+], Athena COUSTENIS[2], Alice LE GALL[3], Michael MALASKA[4], Rosaly LOPES-GAUTIER[4], Samuel BIRCH[5], Sebastien RODRIGUEZ[6], Kenneth LAWRENCE[7], Pierre DROSSART[8], Christos MATSOUKAS[9]
[1]ESA European Space Agency, [2]Paris Observatory/ French National Center for Scientific Research/ PSL Research University, [3]Laboratoire Atmosphères, Milieux, Observations Spatiales (LATMOS-UVSQ), [4]Jet Propulsion Laboratory, California Institute of Technology, [5]Cornell University, [6]Institut de Physique du Globe de Paris (IPGP), CNRS-UMR 7154, Université Paris-Diderot, [7]NASA Jet Propulsion Laboratory, [8]Observatoire de Paris/ French National Center for Scientific Research/ Univ. Paris 06/ Univ. Paris-Diderot, [9]KTH-Royal Institute of Technology

PS20-D4-AM2-301-006 | PS20-A008

On the Genesis and Detectability of Organic Chemistry in Hypervelocity Impact Ice Spectra
Zach ULIBARRI[1#+], Tobin MUNSAT[1], Bernd ABEL[2], Richard DEE[1], Mihaly HORANYI[1], David JAMES[1], Sascha KEMPF[1], Zoltan KUPIHAR[1], Zoltan STERNOVSKY[1]
[1]University of Colorado Boulder, [2]Leibniz Institute of Surface Engineering

BG08 / Arsenic and Other Hazardous Elements in Water Sources

Thu - 01 Aug | MR300

Time 11:00-12:30
Chair(s) Abhijit MUKHERJEE, *Indian Institute of Technology Kharagpur*
Devanita GHOSH, *Indian Institute of Science*
Laura RICHARDS, *University of Manchester*

BG08-D4-AM2-300-001 | BG08-A019 (Invited)

Sediment Color Tool as an Innovative Tool for Local Drillers for Safe Water Provision in Rural Bangladesh
Prosun BHATTACHARYA[1#+]
[1]KTH Royal Institute of Technology

BG08-D4-AM2-300-002 | BG08-A012

Implementation Challenges to Effective Groundwater Remediation in Contrasting Arsenic-impacted Areas
Laura RICHARDS[1#+], Neha PARASHAR[2], Debapriya MONDAL[3], Ashok GHOSH[2], Gianfranco PINCETTI ZUNIGA[1], David POLYA[1]
[1]University of Manchester, [2]Mahavir Cancer Sansthan and Research Centre, [3]University of Salford

BG08-D4-AM2-300-003 | BG08-A016

Regional Scale Microbiome Study of Arsenic Contaminated Groundwater of West Bengal, India: Identification of Key Players Involved in As Biogeochemical Cycling
Anumeha SAHA[1+], Abhishek GUPTA[1], Balaram MOHAPATRA[1], Sufia K KHANNAM[2], Pinaki SAR[1#]
[1]Indian Institute of Technology Kharagpur, [2]National Institute of Technology Durgapur

ST02 / Sun-earth System Response to Extreme Solar Events

Thu - 01 Aug | MR309

Time 11:00-12:30

Chair(s) Qing-He ZHANG, *Shandong University*
Yoshiharu OMURA, *Kyoto University*

ST02-D4-AM2-309-001 | ST02-A013 (Invited)

Enhanced N+ and Molecular Ion Outflows from the Topside Ionosphere During Magnetic Storms and Superstorms: First Observations and Magnetospheric Implications
Andrew YAU[1#+], Andrew HOWARTH[1], Victoria FOSS[1]
[1]University of Calgary

ST02-D4-AM2-309-002 | ST02-A005 (Invited)

Severe GPS Phase and Amplitude Scintillations at High Latitudes During the 2015 St. Patrick's Day Storm
Yaqi JIN[1#+], Kjellmar OKSAVIK[2]
[1]University of Oslo, [2]University of Bergen

ST02-D4-AM2-309-003 | ST02-A003 (Invited)

Impact of Solar EUV, Particle Precipitation and Nitric Oxide on Thermospheric Density Decrease
Yongliang ZHANG[1#+], Larry PAXTON[1], Gang LU[2], Jeng-Hwa YEE[1]
[1]The Johns Hopkins University Applied Physics Laboratory, [2]National Center for Atmospheric Research

ST02-D4-AM2-309-004 | ST02-A017

Ionospheric Responses to the October 2002 Storms over Millstone Hill
Libo LIU[1#+], Huijun LE[1], Yiding CHEN[1]
[1]Chinese Academy of Sciences

ST02-D4-AM2-309-005 | ST02-A020

Investigation of Equatorial Plasma Bubbles During 2015 St. Patrick's Day Storm by Data Assimilation and Model Simulations
P. K. RAJESH[1#+], Charles LIN[1], Chia-Hung CHEN[1], Chuan Ping LIEN[2], Tomoko MATSUO[2], Joe HUBA[3]
[1]National Cheng Kung University, [2]University of Colorado, Boulder, [3]Naval Research Laboratory

IG18 / Tropical Hydroclimate Changes Since the Late Pleistocene

Thu - 01 Aug | MR323

Time 11:00-12:30

Chair(s) Guangxin LIU, *Nanyang Technological University*
Shufang YUAN, *Nanyang Technological University*

IG18-D4-AM2-323-001 | IG18-A004 (Invited)

Climate and Vegetation Change in Central Sulawesi During the Pleistocene and Holocene
James RUSSELL[1#+]
[1]Brown University

IG18-D4-AM2-323-002 | IG18-A016

Paleoenvironment of Southwestern Taiwan Inferred from Stable Isotope Records of Archaeological Crassostrea Oyster Shells Since Middle Holocene
Horng-Sheng MII[1#+], Manh Ling NGUYEN[1], Kuang-Ti LI[2]
[1]National Taiwan Normal University, [2]Academia Sinica

IG18-D4-AM2-323-003 | IG18-A003

Tropical Vegetation and Soil CO2 Productivity Changes in Central Indonesia During the Past 30,000 Years
Shufang YUAN[1#+], Xianfeng WANG[1], Guangxin LIU[1], Hong-Wei CHIANG[2], Satria BIJAKSANA[3], Xiuyang JIANG[4], Imran UMAR[5], Satrio WICAKSONO[6], Minn Lin WONG[7]
[1]Nanyang Technological University, [2]National Taiwan University, [3]Institut Teknologi Bandung, [4]Fujian Normal University, [5]Hasanuddin University, [6]World Resources Institute, [7]Earth Observatory Singapore

IG18-D4-AM2-323-004 | IG18-A007

Anthropogenic Influence on Monsoonal Rainfall and Vegetation in Southwestern China over the Past 300 Years
Ke LIN[1,2#+], Wuhui DUAN[3], Xianfeng WANG[1], Xinggong KONG[4], Liangcheng TAN[3], Chuan-Chou SHEN[2]
[1]Nanyang Technological University, [2]National Taiwan University, [3]Chinese Academy of Sciences, [4]Nanjing Normal University

IG18-D4-AM2-323-005 | IG18-A019

Spatial-temporal Variability of Streamflow in Major Asian Basins over the Past Four Centuries and Links to Climate Drivers
Hung NGUYEN[1#+], Sean TURNER[2], Stefano GALELLI[1]
[1]Singapore University of Technology and Design, [2]Pacific Northwest National Laboratory

IG18-D4-AM2-323-006 | IG18-A006

Why the Climate over Large Islands in the Maritime Continent was Wetter During the Mid-holocene Than Today?
Yudha DJAMIL[1#+], Xianfeng WANG[1]
[1]Nanyang Technological University

AS14 / The Science and Prediction of Tropical Cyclones

Thu - 01 Aug | Nicoll 3

Time 11:00-12:30

Chair(s) Ralf TOUMI, *Imperial College London*
Shu-Chih YANG, *National Central University*

AS14-D4-AM2-Nicoll 3-001 | AS14-A044 (Invited)

Airborne Eyewall Momentum Flux Measuremets in the South China Sea
Ralf TOUMI[1#+], Nathan SPARKS[1], Shuai WANG[1], K.K. HON[2], P.W. CHAN[2], T. C. LEE[2], Johnny CHAN[3]
[1]Imperial College London, [2]Hong Kong Observatory, [3]City University of Hong Kong

AS14-D4-AM2-Nicoll 3-002 | AS14-A046

Impact of Assimilating FORMOSAT-7/COSMIC-2 Radio Occultation on Tropical Cyclone Formation: Observing System Simulation Experiments Based on Hurricane Helene (2006)
Shu-Chih YANG[1#+], Chih-Chien CHANG[1], Shu-Hua CHEN[2]
[1]National Central University, [2]University of California, Davis

AS14-D4-AM2-Nicoll 3-003 | AS14-A026

Quasi Real-time Observation of Typhoon and Thunderstorms Using Micro-satellites and Ground-based Lightning Networks
Yukihiro TAKAHASHI[1#+], Mitsuteru SATO[1], Hisayuki KUBOTA[1], Kozo YAMASHITA[2], Tetsuro ISHIDA[1], Ellison CASTRO[3], Loren ESTREBILLO[1], Purwadi PURWADI[1], Ryuto HASHIBA[1], Kazuhisa TSUBOKI[4], Hiroyuki YAMADA[5], Taro SHINODA[4], Norio NAGAHAMA[6]
[1]Hokkaido University, [2]Ashikaga Institute of Technology, [3]University of the Philippines, Diliman, [4]Nagoya University, [5]University of the Ryukyus, [6]Meisei Electric

AS14-D4-AM2-Nicoll 3-004 | AS14-A037

Airborne Observation of Super Typhoon Trami in 2018 for Understanding the Mature Stage of Tropical Cyclone in the Philippine Sea
Hisayuki KUBOTA[1#+], Kazuhisa TSUBOKI[2], Hiroyuki YAMADA[3], Yukihiro TAKAHASHI[1], Taro SHINODA[2], Tadayasu OHIGASHI[4], Munehiko YAMAGUCHI[5], Kosuke ITO[3], Tetso NAKAZAWA[5], Norio NAGAHAMA[6], Kensaku SHIMIZU[6], Mitsuteru SATO[1]
[1]Hokkaido University, [2]Nagoya University, [3]University of the Ryukyus, [4]National Research Institute for Earth Science and Disaster Resilience, [5]Japan Meteorological Agency, [6]Meisei Electric

AS14-D4-AM2-Nicoll 3-005 | AS14-A050 (Invited)

Mid-tropospheric Relative Humidity and Tropical Cyclone Intensification
Brian SODEN[1#+]
[1]University of Miami

AS14-D4-AM2-Nicoll 3-006 | AS14-A008

Remote Influence of Moisture Transport from the Kuroshio on the Development of Tropical Cyclones over the Western North Pacific in Boreal Fall
Keita FUJIWARA[1#+], Ryuichi KAWAMURA[1], Tetsuya KAWANO[1]
[1]Kyushu University

ST24 / Dynamic Coupling Between Waves and Plasmas in the Inner Magnetosphere and Its Feedback on Ionospheric Electrodynamics
ST17 / The Dynamic Loss of Earth's Radiation Belts: from Loss in the Magnetosphere to Particle Precipitation in the Atmosphere

Thu - 01 Aug | MR308

Time 13:30-15:30

Chair(s) Natalia BUZULUKOVA, *NASA Goddard Space Flight Center*
Allison JAYNES, *The University of Iowa*
Maria USANOVA, *University of Colorado Boulder*

ST24-D4-PM1-308-001 | ST24-A001

Simulations of Magnetosphere-ionosphere Coupling of Precipitating Electrons, Ionospheric Conductance, and Inner Magnetospheric Electric Fields
Margaret CHEN[1#+], Colby LEMON[1], James HECHT[1], George KHAZANOV[2], Joseph EVANS[3], James ROEDER[1], Stephen KAEPPLER[4]
[1]The Aerospace Corporation, [2]NASA Goddard Space Flight Center, [3]Computational Physics, Inc., [4]Clemson University

ST24-D4-PM1-308-002 | ST24-A006 (Invited)

MMS Observations of Magnetospheric Field Line Resonances
Guan LE[1#+], Peter CHI[2], Robert STRANGEWAY[2], Christopher RUSSELL[2], James SLAVIN[3], Brian ANDERSON[4], Rumi NAKAMURA[5], Ferdinand PLASCHKE[5], Roy B. TORBERT[6,7]
[1]National Aeronautics and Space Administration, [2]University of California, Los Angeles, [3]University of Michigan, [4]The Johns Hopkins University Applied Physics Laboratory, [5]Austrian Academy of Sciences, [6]University of New Hampshire, [7]Southwest Research Institute

ST24-D4-PM1-308-003 | ST24-A004

A New Ionosphere Conductivity Model with Comprehensive Ionospheric Dynamics and Solar and Magnetospheric Inputs
Suk-Bin KANG[1#+], Alex GLOCER[2], Mei-Ching FOK[2], Vladimir AIRAPETIAN[3]
[1]NASA/GSFC, [2]NASA Goddard Space Flight Center, [3]American University

ST17-D4-PM1-308-004 | ST17-A002 (Invited)

Radiation Belt Electron Precipitation into the Atmosphere: Implications for Atmospheric Composition and Dynamics
Miriam SINNHUBER[1#+]
[1]Karlsruhe Institute of Technology

ST17-D4-PM1-308-005 | ST17-A001 (Invited)

Very Low Frequency Transmitter Signals in the Magnetosphere
Lunjin CHEN[1#+]
[1]The University of Texas at Dallas

ST17-D4-PM1-308-006 | ST17-A003

Wave-induced Loss of Electrons in the Inner Zone and Slot Region
Jay ALBERT[1#+]
[1]Air Force Research Laboratory

ST17-D4-PM1-308-007 | ST17-A004

Intense Electron Precipitation Observed by Multiple Satellites on 7, 8 October 2018
Berhard BLAKE[1#+]
[1]The Aerospace Corporation

ST28 / Radio Heliophysics from Sun to Mud: How Radio Techniques can be Used to Study the Chain of Activity from Solar Origin to its Effects at Earth and Other Solar-System Bodies

Thu - 01 Aug | MR304

Time 13:30-15:30

Chair(s) Yihua YAN, *Chinese Academy of Sciences*
Mario BISI, *United Kingdom Research and Innovation - Science & Technology Facilities Council*

ST28-D4-PM1-304-001 | ST28-A009 (Invited)

Tracing of Energetic Electron Beams in Solar Corona with Imaging Spectroscopy from MUSER
Susanta Kumar BISOI[1#+], Yihua YAN[1,2], Linjie CHEN[1], Janardhan PADMANABHAN[3]
[1]Chinese Academy of Sciences, [2]University of Chinese Academy of Sciences, [3]Physical Research Laboratory

ST28-D4-PM1-304-002 | ST28-A007

LOFAR and Arecibo Observations of Interplanetary Scintillation (IPS)
Oyuki CHANG[1#+], Mario BISI[1], Richard FALLOWS[2], Alessandra Abe PACINI[3]
[1]United Kingdom Research and Innovation - Science & Technology Facilities Council, [2]ASTRON - The Netherlands Institute for Radio Astronomy, [3]Arecibo Observatory

ST28-D4-PM1-304-003 | ST28-A011 (Invited)

The Design of Interplanetary Scintillation Telescope in China for Space Weather
Yihua YAN[1,2#+], Wei WANG[1], Linjie CHEN[1], Fei LIU[1], Lihong GENG[1], Zhijun CHEN[1]
[1]Chinese Academy of Sciences, [2]University of Chinese Academy of Sciences

ST28-D4-PM1-304-004 | ST28-A010

Preliminary Receiver Design for a New Interplanetary Scintillation (IPS) Telescope
Linjie CHEN[1#+], Wei WANG[1], Yihua YAN[1,2], Fei LIU[1], Lihong GENG[1]
[1]Chinese Academy of Sciences, [2]University of Chinese Academy of Sciences

ST28-D4-PM1-304-005 | ST28-A012

The UCSD Iterative Interplanetary Scintillation (IPS) Analysis Using an ENLIL 3-D MHD Model Kernel in Near Real Time
Bernard JACKSON[1#], Paul HICK[1], Andrew BUFFINGTON[1], Dusan ODSTRCIL[2], Munetoshi TOKUMARU[3], Nobuhiko NISHIMURA[4], Mario BISI[5+]
[1]University of California, San Diego, [2]NASA Goddard Space Flight Center, [3]Nagoya University, [4]Institute for Space Earth Environmental Research, [5]United Kingdom Research and Innovation - Science & Technology Facilities Council

ST28-D4-PM1-304-006 | ST28-A013

LOFAR4SpaceWeather (LOFAR4SW) – Increasing European Space-weather Capability with Europe's Largest Radio Telescope: Beyond the Preliminary Design Review (PDR)
Mario BISI[1#+], Richard FALLOWS[2], Rene VERMEULEN[2], Stuart ROBERTSON[1], Mark RUITER[2], Nicole VILMER[3], Hanna ROTHKAEHL[4], Joris VERBIEST[5], Peter GALLAGHER[6], Michael OLBERG[7], Tobia CAROZZI[7], Michael LINDQVIST[7], Eoin CARLEY[8], Pieter BENTHEM[2], Paulus KRUGER[2], Maaijke MEVIUS[2]
[1]United Kingdom Research and Innovation - Science & Technology Facilities Council, [2]ASTRON - The Netherlands Institute for Radio Astronomy, [3]Observatoire de Paris, [4]Space Research Centre of Polish Academy of Sciences, [5]Bielefeld University, [6]Dublin Institute for Advanced Studies, [7]Onsala Space Observatory, [8]Trinity College Dublin

AS21 / Understanding Light-absorbing Carbon Aerosols Using Observations and Models

Thu - 01 Aug | MR303

Time 13:30-15:30
Chair(s) Jianping GUO, *Chinese Academy of Meteorological Sciences*
Steve YIM, *The Chinese University of Hong Kong*

AS21-D4-PM1-303-001 | AS21-A019

The Impact of a New Multi-measurement Constrained, 4D Varying, Dataset of Global Fire Aerosols, on Atmospheric Loadings and Associated Radiative Forcing of Black Carbon Aerosols
Jason COHEN[1#+]
[1]Sun Yat-sen University

AS21-D4-PM1-303-002 | AS21-A031 (Invited)

Formation and Optical Properties of Brown Carbon Aerosols
Renyi ZHANG[1#+], Wilmarie MARRERO-ORTIZ[1], Zhuofei DU[2], Yuemeng JI[3], Yuan WANG[4], Min HU[2]
[1]Texas A&M University, [2]Peking University, [3]Guangdong University of Technology, [4]California Institute of Technology

AS21-D4-PM1-303-003 | AS21-A018

Modeling Atmospheric Age Distribution of Elemental Carbon Using a Regional Age-resolved Particle Representation Framework
Hongliang ZHANG[1#+], Hao GUO[2], Jianlin HU[3], Qi YING[4], Michael KLEEMAN[5]
[1]Fudan University, [2]Louisiana State University, [3]Nanjing University of Information Science & Technology, [4]Texas A&M University, [5]University of California, Davis

AS21-D4-PM1-303-004 | AS21-A021 (Invited)

Interaction Between Absorbing Aerosols, Boundary-layer, and Convective Cloud Systems
Zhanqing LI[1,2#+]
[1]University of Maryland, [2]Beijing Normal University

AS21-D4-PM1-303-005 | AS21-A006

Feedback of Black Carbon Aerosol to Atmosphere During Polluted Weather
Yan YANG[1#+], Delong ZHAO[1], Chun ZHAO[2]
[1]Beijing Weather Modification Office, [2]University of Science and Technology of China

AS21-D4-PM1-303-006 | AS21-A013 (Invited)

Observation-based Estimates of the Mass Absorption Cross-section of Black and Brown Carbon and Their Contribution to Aerosol Light Absorption
Sang-Woo KIM[1#+], Chaeyoon CHO[1], Meehye LEE[2], Saehee LIM[2], Wenzheng FANG[3], Orjan GUSTAFSSON[4], August ANDERSSON[4], Rokjin J. PARK[1], Patrick SHERIDAN[5]
[1]Seoul National University, [2]Korea University, [3]East China Normal University, [4]Stockholm University, [5]National Oceanic and Atmospheric Administration

AS21-D4-PM1-303-007 | AS21-A008

Constraining Aging Processes of Black Carbon in the Community Atmosphere Model Using Environmental Chamber Measurements

Yuan WANG[1#+], Po-Lun MA[2], Jianfei PENG[3], Renyi ZHANG[3], Jonathan JIANG[4], Richard EASTER[2], Yuk YUNG[1]

[1]California Institute of Technology, [2]Pacific Northwest National Laboratory, [3]Texas A&M University, [4]Jet Propulsion Laboratory, California Institute of Technology

AS21-D4-PM1-303-008 | AS21-A016

The Effects of Minor Structures on the Optical Properties of Black Carbon Aerosols

Shiwen TENG[1#+], Chao LIU[1], Martin SCHNAITER[2], Rajan K. CHAKRABARTY[3], Fengshan LIU[4]

[1]Nanjing University of Information Science & Technology, [2]Karlsruhe Institute of Technology, [3]Washington University in St. Louis, [4]National Research Council

HS26 / Changes in Cryospheric Hydrological Processes and Their Impacts on Sustainable Development

Thu - 01 Aug | MR330

Time 13:30-15:30

Chair(s) Zhang SHIQIANG, *Northwest University*

HS26-D4-PM1-330-001 | HS26-A006 (Invited)

Slower Than GCM Predicted Permafrost Degradation by the End of the 21st Century

Tingjun ZHANG[1#+]

[1]Lanzhou University

HS26-D4-PM1-330-002 | HS26-A005

Characteristics of Runoff Chemistry and its Influencing Factor in a Meltwater-dominated Dongkemadi Basin in Central Tibetan Plateau

Tianding HAN[1#+], Jia QIN[2]

[1]Chinese Academy of Sciences, [2]Northwest Institute of Eco-Environment and Resources, Chinese Academy of Sciences

HS26-D4-PM1-330-003 | HS26-A007

Estimated Glacier Meltwater and River Runoff Changes by Observed Glacier Change and Runoff in the Upper Reach of the Shule River Basin, Northeastern Edge of the Tibetan Plateau

Zhang SHIQIANG[1#+]

[1]Northwest University

HS26-D4-PM1-330-004 | HS26-A021

A Novel Approach for Mapping Permafrost in a Large Area Using Subregion Maps and Satellite Data

Shuping ZHAO[1#+], Zhuotong NAN[1]

[1]Nanjing Normal University

HS26-D4-PM1-330-005 | HS26-A009

Long-term Changes of Water Vapor Flux over the Qilian Mountain and Hexi Corridor Region During 1980 to 2017, Northwestern China

Zhihua ZHANG[1+], Qiudong ZHAO[2], Zhang SHIQIANG[1#], Xiaowen ZHANG[1], Na WEI[1], Ting HUA[1]

[1]Northwest University, [2]Chinese Academy of Sciences

HS26-D4-PM1-330-006 | HS26-A008

Vulnerability and Adaptation of an Oasis Social-ecological System Affected by Glacier Change in an Arid Region of Northwestern China

Jianping YANG[1#+]

[1]Cold and Arid Regions Environmental and Engineering Research Institute,Chinese Academy of Sciences

HS26-D4-PM1-330-007 | HS26-A004 (Invited)

Study on Water Internal Recycle Process and Mechanism in Typical Mountain Areas of Inland Basins, Northwest China: Progress and Challenge

Yongjian DING[1,2#+], Zhang SHIQIANG[3]

[1]Northwest Institute of Eco-Environment and Resources, Chinese Academy of Sciences, [2]University of Chinese Academy of Sciences, [3]Northwest University

HS26-D4-PM1-330-008 | HS26-A002

Dissolved Iron Supply from Asian Glaciers: Local Controls and a Regional Perspective

Xiangying LI[1#+], Yongjian DING[2,3], Eran HOOD[4], Raiswell ROBERT[5]

[1]Hohai University, [2]Northwest Institute of Eco-Environment and Resources, Chinese Academy of Sciences, [3]University of Chinese Academy of Sciences, [4]University of Alaska Southeast, [5]University of Leeds

HS18 / Ecohydrological Processes and Modelling in a Changing Environment

Thu - 01 Aug | MR329

Time 13:30-15:30

Chair(s) Huimin LEI, *Tsinghua University*
Yuting YANG, *Tsinghua University*

HS18-D4-PM1-329-001 | HS18-A008

Hydrologic Spaces for Catchment Water Balance

Edoardo DALY[1#+], Salvatore CALABRESE[2], Jun YIN[2], Amilcare PORPORATO[2]

[1]Monash University, [2]Princeton University

HS18-D4-PM1-329-002 | HS18-A023

Ecohydrological Modeling-based Ecosystem Service Evaluation

Yiping WU[1#+]

[1]Xi'an Jiaotong University

HS18-D4-PM1-329-003 | HS18-A016

Interactions Between Topography, Permafrost, and Vegetation in Siberian Larch Forest: A Simulation Study

Hisashi SATO[1#+]

[1]Japan Agency for Marine-Earth Science and Technology

HS18-D4-PM1-329-004 | HS18-A020 (Invited)

Reforestation Mitigates the Rising Temperature in the Eastern US: Mechanism and Implication

Quan ZHANG[1#+], Kimberly A. NOVICK[2]

[1]Wuhan University, [2]Indiana University

HS18-D4-PM1-329-005 | HS18-A013

Study on Forest Ecological Hydrology in Qilian Mountains

Zhibin HE[1#+]

[1]Northwest Institute of Eco-Environment and Resources, Chinese Academy of Sciences

HS18-D4-PM1-329-006 | HS18-A003 (Invited)

Analyzing the Impact of Climate Change and Human Activities on Vegetation Changes in a Headwater Catchment Using a Distributed Model

Bing GAO[1#+], Dawen YANG[2]
[1]*China University of Geosciences,* [2]*Tsinghua University*

HS18-D4-PM1-329-007 | HS18-A010

Investigations on the Diffusion Characteristics of Kandelia Mangrove Seedling in Northern Taiwan

Wei-Bin XU[1+], Shang-Shu SHIH[1#]
[1]*National Taiwan University*

HS14 / Exploration of Atmospheric Water Resources

Thu - 01 Aug | MR328

Time 13:30-15:30

Chair(s) Haiyun SHI, *Southern University of Science and Technology*
Ji CHEN, *The University of Hong Kong*
Bellie SIVAKUMAR, *University of New South Wales*

HS14-D4-PM1-328-001 | HS14-A001

A New Classification of Large-scale Climate Regimes Around the Tibetan Plateau Based on Seasonal Moisture Transport Patterns

Ping WANG[1], Xin-Gang DAI[2#+]
[1]*Chinese Academy of Meteorological Sciences,* [2]*Institute of Atmospheric Physics,Chinese Academy of Sciences*

HS14-D4-PM1-328-002 | HS14-A003

Does Summer Precipitation in China Exhibit Significant Periodicities?

Yanfang SANG[1#+], Vijay SINGH[2], Ping XIE[3], Yanxin ZHU[1], Xinxin LI[1]
[1]*Chinese Academy of Sciences,* [2]*Texas A&M University,* [3]*Wuhan University*

HS14-D4-PM1-328-003 | HS14-A004

Cloud Water Interception in Hawai'i: Project Overview & Preliminary Results of Fog and CWI Patterns

Han TSENG[1#+], Thomas GIAMBELLUCA[1], John DELAY[2]
[1]*University of Hawaii at Manoa,* [2]*University of Hawaii*

HS14-D4-PM1-328-004 | HS14-A005

A Quantitative Evaluation Method of Atmospheric Water Resource and its Precipitation Conversion Analysis

Jiaye LI[1,2+], Tiejian LI[2#], Ji CHEN[1]
[1]*The University of Hong Kong,* [2]*Tsinghua University*

HS14-D4-PM1-328-005 | HS14-A009

Theoretical and Experimental Study on the Mechanism of Precipitation Stimulation by Acoustic Wave

Mengyao WANG[1#+], Ji CHEN[1]
[1]*The University of Hong Kong*

HS14-D4-PM1-328-006 | HS14-A012

Analysis of Temporal and Spatial Distribution of Atmospheric Water Resources in the Tibetan Plateau Using WRF

Xinzheng TANG[1#+], Ji CHEN[1]
[1]*The University of Hong Kong*

PS14 / Small Body Explorations by Current and Future Missions

Thu - 01 Aug | MR310

Time 13:30-15:30

Chair(s) Jian-Yang LI, *Planetary Science Institute*

PS14-D4-PM1-310-001 | PS14-A002 (Invited)

Ceres: The Dawn Legacy

Chris RUSSELL[1#+], Carol RAYMOND[2]
[1]*University of California, Los Angeles,* [2]*Jet Propulsion Laboratory, California Institute of Technology*

PS14-D4-PM1-310-002 | PS14-A011

Exploration of Asteroid Ryugu by Hayabusa2

Makoto YOSHIKAWA[1#+], Sei-Ichiro WATANABE[2], Yuichi TSUDA[1], Satoru NAKAZAWA[1], Fuyuto TERUI[1], Takanao SAIKI[1], Tra-Mi HO[3], Aurelie MOUSSISOFFYS[4], Seiji SUGITA[5], Noriyuki NAMIKI[6], Kohei KITAZATO[7], Satoshi TANAKA[1], Masahiko ARAKAWA[8], Shogo TACHIBANA[5], Masateru ISHIGURO[9], Hitoshi IKEDA[1], Tatsuaki OKADA[1], Hirohide DEMURA[7], Masanao ABE[1], Kazuhisa FUJITA[1], Yukio YAMAMOTO[1], Ralf JAUMANN[3], Jean-Pierre BIBRING[10], Matthias GROTT[3], Karl-Heinz GLASSMEIER[11]
[1]*Japan Aerospace Exploration Agency,* [2]*Nagoya University,* [3]*German Aerospace Center,* [4]*National Centre for Space Studies,* [5]*The University of Tokyo,* [6]*National Astronomical Observatory of Japan,* [7]*The University of Aizu,* [8]*Kobe University,* [9]*Seoul National University,* [10]*University of Paris-Sud,* [11]*Technische Universitat Braunschweig*

PS14-D4-PM1-310-003 | PS14-A027 (Invited)

Topography of Large Craters and Equatorial Bulge of 162173 Ryugu

Noriyuki NAMIKI[1#+], Takahide MIZUNO[2], Hiroki SENSHU[3], Hirotomo NODA[1], Koji MATSUMOTO[1], Naru HIRATA[4], Ryuhei YAMADA[4], Yoshiaki ISHIHARA[5], Hitoshi IKEDA[2], Hiroshi ARAKI[1], Keiko YAMAMOTO[1], Shinsuke ABE[6], Fumi YOSHIDA[3], Arika HIGUCHI[1], Sho SASAKI[7], Shoko OSHIGAMI[1], Seiitsu TSURUTA[1], Kazuyoshi ASARI[1], Seiichi TAZAWA[1], Makoto SHIZUGAMI[1], Hideaki MIYAMOTO[8], Hirohide DEMURA[4], Jun KIMURA[7], Toshimichi OTSUBO[9]
[1]*National Astronomical Observatory of Japan,* [2]*Japan Aerospace Exploration Agency,* [3]*Chiba Institute of Technology,* [4]*The University of Aizu,* [5]*National Institute for Environmental Studies,* [6]*Nihon University,* [7]*Osaka University,* [8]*The University of Tokyo,* [9]*Hitotsubashi University*

PS14-D4-PM1-310-004 | PS14-A028

Results of Hayabusa2 Near Infrared Spectroscopy at Asteroid Ryugu

Takahiro IWATA[1#+], Kohei KITAZATO[2], Masanao ABE[1], Makiko OHTAKE[1], Yusuke NAKAUCHI[1], Moe MATSUOKA[1], Kohji TSUMURA[3], Shuji MATSUURA[4], Lucie RIU[1]
[1]*Japan Aerospace Exploration Agency,* [2]*The University of Aizu,* [3]*Tohoku University,* [4]*Kwansei Gakuin University*

PS14-D4-PM1-310-005 | PS14-A004 (Invited)

Thermophysical Properties of Asteroid 162173 Ryugu Observed by TIR on Hayabusa2

Tatsuaki OKADA[1#+], Tetsuya FUKUHARA[2], Satoshi TANAKA[1], Makoto TAGUCHI[2], Takehiko ARAI[3], Naoya SAKATANI[1], Yuri SHIMAKI[1], Hiroki SENSHU[4], Hirohide DEMURA[5], Toru KOUYAMA[6], Tomohiko SEKIGUCHI[7], Jorn HELBERT[8], Thomas MUELLER[9], Axel HAGERMANN[10]

[1]Japan Aerospace Exploration Agency, [2]Rikkyo University, [3]Ashikaga University, [4]Chiba Institute of Technology, [5]The University of Aizu, [6]National Institute of Advanced Industrial Science and Technology, [7]Hokkaido University of Education, [8]German Aerospace Center, [9]Max Planck Institute for Extraterrestrial Physics, [10]University of Stirling

PS14-D4-PM1-310-006 | PS14-A016 (Invited)

Towards Understanding the Complex Near-nucleus Gas and Dust Environment of Comet 67P/Churyumov-Gerasimenko

Xian SHI[1#+], Jessica AGARWAL[1], Martin ROSE[2], Xuanyu HU[3], Marco FULLE[4], Holger SIERKS[1]

[1]Max Planck Institute for Solar System Research, [2]PI-DSMC, [3]Technical University Berlin, [4]National Institute for Astrophysics

PS14-D4-PM1-310-007 | PS14-A006

Identification and Characterization of Active Regions on the Nucleus of Comet 67P/Churyumov-Gerasimenko

Hong Van HOANG[1#+], Sonia FORNASIER[2], Pedro HASSELMANN[3], Eric QUIRICO[4]

[1]Université Grenoble Alpes, [2]Paris Diderot University, [3]Laboratoire d'Etudes Spatiales et d'Instrumentation en Astrophysique, [4]French National Center for Scientific Research

AS28 / Theory, Observations and Modelling of Maritime Continent Weather and Climate

Thu - 01 Aug | MR311

Time 13:30-15:30

Chair(s) Muhammad Eeqmal HASSIM, *Centre for Climate Research Singapore, Meteorological Service Singapore*
Joshua QIAN, *Meteorological Service Singapore*

AS28-D4-PM1-311-001 | AS28-A002 (Invited)

The Barrier Effect of the Maritime Continent for the Madden-Julian Oscillation

Xianan JIANG[1#+], Hui SU[2], Duane WALISER[2]

[1]University of California, Los Angeles, [2]Jet Propulsion Laboratory, California Institute of Technology

AS28-D4-PM1-311-002 | AS28-A006 (Invited)

Maritime Continent Barrier Effect on the MJO: Role of the Maritime Continent Land Convection

Daehyun KIM[1#+], Min-Seop AHN[1], Yoo-Geun HAM[2], Sungsu PARK[3]

[1]University of Washington, [2]Chonnam National University, [3]Seoul National University

AS28-D4-PM1-311-003 | AS28-A004 (Invited)

A Zonal Projection of Monsoons and the Variability in the Propagation of the Madden-Julian Oscillation Events Across the Maritime Continent

Samson HAGOS[1#+], L. Ruby LEUNG[1], Chidong ZHANG[2], Karthik BALAGURU[1], Casey BURLEYSON[1]

[1]Pacific Northwest National Laboratory, [2]National Oceanic and Atmospheric Administration

AS28-D4-PM1-311-004 | AS28-A005 (Invited)

MJO Propagation Through the Maritime Continent Under the Influences of ENSO and QBO

Chidong ZHANG[1#+], Guiwan CHEN[2]

[1]National Oceanic and Atmospheric Administration, [2]Chinese Academy of Sciences

AS28-D4-PM1-311-005 | AS28-A008

Modulation of Diurnal Precipitation in the Maritime Continent by MJO and ENSO

Tieh-Yong KOH[1#+], Ricardo FONSECA[2], Chee-Kiat TEO[3]

[1]Singapore University of Social Sciences, [2]Khalifa University, [3]Centre for Climate Research Singapore

AS28-D4-PM1-311-006 | AS28-A003 (Invited)

Numerical Studies with NICAM on Mechanisms for Northward Propagation of the Boreal Summer Intraseasonal Oscillation

Kanta NAKAE[1], Masaki SATOH[1#+], Daisuke TAKASUKA[1]

[1]The University of Tokyo

AS28-D4-PM1-311-007 | AS28-A016

On Precipitation Biases in CMIP5 Models over the Maritime Continent Region

Raju PATHAK[1#+], Sandeep SAHANY[1], Saroj Kanta MISHRA[1]

[1]Indian Institute of Technology Delhi

AS28-D4-PM1-311-008 | AS28-A018

Climate-Biogeosphere-Anthroposphere Interactions over the Maritime-Continent Peatland

Manabu D. YAMANAKA[1,2#+]

[1]Research Institute for Humanity and Nature, [2]Kobe University

AS15 / Urban Climate

Thu - 01 Aug | MR327

Time 13:30-15:30

Chair(s) Shaojing JIANG, *Beijing Normal University*
Jizeng DU, *Beijing Normal University*

AS15-D4-PM1-327-001 | AS15-A001

Cooling an Arid City: The Energy-water Trade-offs of Urban Irrigation

Jiachuan YANG[1#+], Zhihua WANG[2]

[1]The Hong Kong University of Science and Technology, [2]Arizona State University

AS15-D4-PM1-327-002 | AS15-A008 (Invited)

Uncertainties in the Impact of Urbanization on Heavy

Miao YU[1#+]

[1]China Meteorological Administration

AS15-D4-PM1-327-003 | AS15-A018 (Invited)

Urban Heat Island of San Antonio, Texas, from 1991 to 2010

Daniel BOICE[1#+], Michelle GARZA[2]

[1]Scientific Studies and Consulting, [2]San Antonio River Authority

AS15-D4-PM1-327-004 | AS15-A006

Urban Heat Island and Mitigation Potential with Cool Roofs in Kansas City Metropolitan Area

Fengpeng SUN[1#+]

[1]University of Missouri - Kansas City

AS15-D4-PM1-327-005 | AS15-A005

Ceilometer Retrieval of Boundary Layer Height in Seoul and Evaluation of the Dilution Effect on Air Pollution
Junhong LEE[1+], Jinkyu HONG[1#], Je-Woo HONG[1], Keunmin LEE[1], Erik VELASCO[2], Yong Jae LIM[3], Jae-Bum LEE[3], Kipyo NAM[3], Jihoon PARK[3]
[1]Yonsei University, [2]Independent Researcher, [3]National Institute of Environmental Research

AS15-D4-PM1-327-006 | AS15-A014

Bangkok's PM 2.5 Air Quality in January 2019 and Weather Observations
Supaluk VIMALA[1#+], Karnjana SAENGPRAPAI[1], Sasiprapa TANYONG[2], Kanoksri SARINNAPAKORN[2]
[1]Hydro-Informatics Institute (Public Organization), [2]Hydro and Agro Informatics Institute

AS15-D4-PM1-327-007 | AS15-A004

Seasonal Variations in the Surface Energy and CO2 Flux over a High-rise, High-density, Residential Urban Area in the East Asian Monsoon Region
Je-Woo HONG[1+], Jinkyu HONG[1#]
[1]Yonsei University

AS08 / The Science and Prediciton of Heavy Precipitation and Floods

Thu - 01 Aug | MR302

Time 13:30-15:30
Chair(s) Huiling YUAN, *Nanjing University*

AS08-D4-PM1-302-001 | AS08-A026 (Invited)

Multi-model Ensemble Forecast of Precipitation Based on the Method for Object-based Diagnostic Evaluation
Xiefei ZHI[1#+], Luying JI[1]
[1]Nanjing University of Information Science & Technology

AS08-D4-PM1-302-002 | AS08-A023

Selective Ensemble Precipitation Nowcast System and Development of Upstream Low-level Humidification Scheme
Yasutaka WAKAZUKI[1,2#+], Daichi IGARASHI[1]
[1]Ibaraki University, [2]Japan Agency for Marine-Earth Science and Technology

AS08-D4-PM1-302-003 | AS08-A027

Prediction of Extreme Heavy Precipitation Events Associated with Atmospheric Rivers over West Coast of India Using Mesoscale Modelling System
Satyanarayana A.N.V[1#+], Dhana Lakshmi DOULURI[2]
[1]Indian Institute of Technology Kharagpur, [2]PhD Student

AS08-D4-PM1-302-004 | AS08-A019

The Impact of Radar Reflectivity on Numerical Forecast of Typhoon Hato (1713) Based on WRF-EnKF System
Hui XIAO[1#+]
[1]Guangzhou Institute of Tropical and Marine Meteorology, CMA

AS08-D4-PM1-302-005 | AS08-A029

Experiments of Nowcasting and Short-range Forecasts of Precipitation for Urban Flood Warning Management in China
Huiling YUAN[1#+], Han SHEN[2], Gang WANG[2]
[1]Nanjing University, [2]Meteorological Center of North China Regional Air Traffic Management Bureau

AS08-D4-PM1-302-006 | AS08-A020

Ensemble Flood Forecasting of a Disastrous Flood Event in 2018 Japan
Tomoki USHIYAMA[1,2#+], Yousuke NAKAMURA[1]
[1]Public Works Research Institute, [2]National Graduate Institute for Policy Studies

ST07 / Solar Super Storms: in the Past, Present and Future
ST01 / Systems Science Approaches to Heliophysics Modeling and Data Analysis

Thu - 01 Aug | MR301

Time 13:30-15:30
Chair(s) C. Alex YOUNG, *NASA Goddard Space Flight Center*
James GREEN, *NASA Headquarters*

ST07-D4-PM1-301-001 | ST07-A002

Space Weather at Earth: How Bad Can it Get?
James GREEN[1#+]
[1]NASA Headquarters

ST07-D4-PM1-301-002 | ST07-A004 (Invited)

Global Corona, Superflares and Super CMEs from the Young Sun
Vladimir AIRAPETIAN[1#+], Benjamin LYNCH[2], Meng JIN[3,4], Maria KAZACHENKO[5], Theresa LUEFTINGER[6], Oleg KOCHUKHOV[7]
[1]NASA Goddard Space Flight Center and American University, [2]University of California at Berkeley, [3]Lockheed Martin ATC, [4]SETI Institute, [5]University of Colorado Boulder, [6]University of Vienna, [7]Upsalla University

ST07-D4-PM1-301-003 | ST07-A008

Geomagnetic Storms During the Last 100 Years
Kalevi MURSULA[1#+], Timo QVICK[1], Lauri HOLAPPA[1], Ville FILPPA[1]
[1]University of Oulu

ST07-D4-PM1-301-004 | ST07-A007 (Invited)

Stellar Activity Levels of Solar-analog Superflare Stars
Lisa WINTER[1#+]
[1]National Science Foundation

ST07-D4-PM1-301-006 | ST07-A009

Time-dependent Extreme Value Statistics of Space Weather Events
C. Alex YOUNG[1#+], Peter SCHUCK[1]
[1]NASA Goddard Space Flight Center

ST01-D4-PM1-301-005 | ST01-A005

Solar Flare Waiting Time Dynamics
Jay JOHNSON[1#+], Jesse SNELLING[1], Jacob WILLARD[1], Simon WING[2]
[1]Andrews University, [2]The Johns Hopkins University

OS04 / Extreme Events: Tropical Cyclones, Intense Rainfall, Dust Storm in the Warming Environment of the Asia-oceania Region

Thu - 01 Aug | Nicoll 1

Time 13:30-15:30

Chair(s) Narayana A. C., *University of Hyderabad*
Prasanna Kumar SUKUMARAN, *National Institute of Oceanography*

OS04-D4-PM1-Nicoll 1-001 | OS04-A001 (Invited)

Monsoon Variability, Trend and Extremes
Raghu MURTUGUDDE[1#+], Roxy Mathew KOLL[2], Subimal GHOSH[3]
[1]University of Maryland, [2]Indian Institute of Tropical Meteorology, [3]Indian Institute of Technology Bombay

OS04-D4-PM1-Nicoll 1-002 | OS04-A003 (Invited)

Extreme Indian Summer Monsoon Years: Status and Challenges
Suryachandra Rao ANGULURI[1#+], Prasanth APPUKUTTAN PILLAI[1], Ankur SRIVASTAVA[1], Maheswar PRADHAN[1]
[1]Indian Institute of Tropical Meteorology

OS04-D4-PM1-Nicoll 1-003 | OS04-A005 (Invited)

Role of Biweekly SST Variability over the South China Sea and its Influence on the South China Sea Summer Monsoon Exclusively During the IOD
Bakshi Hardeep VAID[1#+], P. S. POLITO[2]
[1]Nanjing University of Information Science & Technology, [2]Universidade de São Paulo

OS04-D4-PM1-Nicoll 1-004 | OS04-A002

Recent Extraordinary Monsoon Floods in South Peninsular India
Narayana A. C.[1#+], Vishwas S. KALE[2], C. P. PRIJU[3]
[1]University of Hyderabad, [2]University of Pune, [3]Centre for Water Resources Development and Management

OS04-D4-PM1-Nicoll 1-005 | OS04-A011

Differential Physical and Biological Response of the Simultaneous Occurrence of Tropical Cyclones over the Arabian Sea and the Bay of Bengal in October 2018
Riyanka ROY CHOWDHURY[1#+], Prasanna Kumar SUKUMARAN[2], Arun CHAKRABORTY[1]
[1]Indian Institute of Technology Kharagpur, [2]National Institute of Oceanography

OS04-D4-PM1-Nicoll 1-006 | OS04-A007

Indian Monsoon Extremes and Their Links to Tropical-extratropical SSTs
Maheswar PRADHAN[1+], Suryachandra Rao ANGULURI[1#], Ankur SRIVASTAVA[1], Prasanth APPUKUTTAN PILLAI[1]
[1]Indian Institute of Tropical Meteorology

OS04-D4-PM1-Nicoll 1-007 | OS04-A008

Enhancement of Nutrient Supply and Carbon Fluxes in the South China Sea Triggered by Extreme Weather Events
Hsueh-Han HSIEH[1#+], Chin-Chang HUNG[1]
[1]National Sun Yat-sen University

IG07 / Interdisciplinary Research on Water-related Disasters and Practical Applications for Disaster Risk Reduction

Thu - 01 Aug | MR300

Time 13:30-15:30

Chair(s) Anawat SUPPASRI, *Tohoku University*
Adam SWITZER, *Nanyang Technological University*

IG07-D4-PM1-300-001 | IG07-A013

Real-time Tsunami Forecasting for the Outer-rise Earthquakes Based on Deep Ocean Bottom Pressure Data
Naotaka YAMAMOTO CHIKASADA[1#+], Toshitaka BABA[2]
[1]NIED, [2]Tokushima University

IG07-D4-PM1-300-002 | IG07-A002

Geomorphological Model of Sea Level and Land Surface Interaction Provides Solution for Underground Water Arsenic Pollution in Yangtze River Plain
Zhongping LAI[1#+], Yantian XU[2]
[1]Shantou University, [2]China University of Geosciences

IG07-D4-PM1-300-003 | IG07-A009

Iterative Multipole Solution for Wave Interaction with Submerged Partially Perforated Semi-circular Breakwater
Zuorui LYU[1#+], Yong LIU[2], Huajun LI[2], Nobuhito MORI[1]
[1]Kyoto University, [2]Ocean University of China

IG07-D4-PM1-300-004 | IG07-A007

Assessing Global Tsunami Risk Through the Perspective of Global Port Network
Takuro OTAKE[1], Anawat SUPPASRI[1#+], Fumihiko IMAMURA[1]
[1]Tohoku University

IG07-D4-PM1-300-005 | IG07-A011

Statistical Analysis of Building Damage: The 2013 Super Typhoon Haiyan Case
Natt LEELAWAT[1#+], Tanaporn CHAIVUTITORN[1], Thawalrat TANASAKCHAROEN[1], Jing TANG[2], Carl Vincent C. CARO[3], Alfredo Mahar LAGMAY[4], Anawat SUPPASRI[5], Jeremy BRICKER[6], Carine J. YI[7], Fumihiko IMAMURA[5]
[1]Chulalongkorn University, [2]Thammasat University, [3]Philippine Disaster Resilience Foundation, [4]University of the Philippines Diliman, [5]Tohoku University, [6]Delft University of Technology, [7]R. Park & Associates Inc.

IG07-D4-PM1-300-006 | IG07-A008

Optimal Allocation of Evacuation Routes and Refuges Considering Tsunami Inundation and River Flood
Fukutaro KITAMURA[1#+], Daisuke INAZU[1], Tsuyoshi IKEYA[1], Akio OKAYASU[1]
[1]Tokyo University of Marine Science and Technology

IG07-D4-PM1-300-007 | IG07-A004

Research and Application of Rainstorm Flood Risk Assessment Technology
Hong TIAN[1#+]
[1]Anhui Climate Center

ST09 / Cross-scale Couplings in Magnetospheric Boundary Layers: From Kinetic to MHD Scales

Thu - 01 Aug | MR309

Time 13:30-15:30

Chair(s) Keizo FUJIMOTO, *Beihang University*
Dongsheng CAI, *University of Tsukuba*

ST09-D4-PM1-309-001 | ST09-A005 (Invited)

Understanding Mercury's Kinetic Magnetosphere and Associated Boundary Layers Using Global Hybrid/Particle Simulations and Messenger Spacecraft Data in Preparation for Bepi-Colombo

David SCHRIVER[1#+], Pavel TRAVNICEK[2], Nicole ECHTERLING[1], Giovanni LAPENTA[3]

[1]University of California, Los Angeles, [2]University of California, Berkeley, [3]KU Leuven

ST09-D4-PM1-309-002 | ST09-A004

Plasma Specific Entropy in the Magnetosphere

Joachim RAEDER[1#+], Doug CRAMER[1], Andrei RUNOV[2], Kai GERMASCHEWSKI[1]

[1]University of New Hampshire, [2]University of California, Los Angeles

ST09-D4-PM1-309-003 | ST09-A002 (Invited)

Comparison of Energy Conversion for Multiscale Processes in Magnetic Reconnection and Current Disruption

Anthony LUI[1#+]

[1]The Johns Hopkins University

ST09-D4-PM1-309-004 | ST09-A001

Force and Energy Balance of the Reconnection Front

Liangjin SONG[1+], Meng ZHOU[1,2#], Xiaohua DENG[3], Zhihong ZHONG[1], Yongyuan YI[1], Huang JING[1], Hengyan MAN[1]

[1]Nanchang University, [2]University of California, Los Angeles, [3]Wuhan University

ST09-D4-PM1-309-005 | ST09-A006

Kinetic Properties of Ions in the Low Energy Layer in Earth's Magnetotail

Ensang LEE[1#+], Jinhy HONG[1], George PARKS[2]

[1]Kyung Hee University, [2]University of California, Berkeley

ST09-D4-PM1-309-006 | ST09-A003

Large-scale Energy Conversion in Collisionless Magnetic Reconnection

Keizo FUJIMOTO[1#+]

[1]Beihang University

ST09-D4-PM1-309-007 | ST09-A007 (Invited)

Kinetic Physics of Magnetic Reconnection in Turbulence in the Earth's Bow Shock

Naoki BESSHO[1#+], Li-Jen CHEN[2], Shan WANG[1], Lynn WILSON[3], Michael HESSE[4]

[1]University of Maryland, [2]NASA Goddard Space Flight Center, [3]National Aeronautics and Space Administration, [4]University of Bergen

IG18 / Tropical Hydroclimate Changes Since the Late Pleistocene
IG17 / Carbon Dioxide Sequestration and Utilization (CCUS) in Energy Geosciences

Thu - 01 Aug | MR323

Time 13:30-15:30

Chair(s) Yudha DJAMIL, *Nanyang Technological University*
Qi LI, *Chinese Academy of Sciences*

IG18-D4-PM1-323-001 | IG18-A001 (Invited)

Variability of Precipitation δ18O in East Asia Inferred from Seasonal-resolved Speleothem Record from Hainan Island, China

Yanjun CAI[1#+], Zhisheng AN[1], Wenwen KONG[2], Hai CHENG[3], R. Lawrence EDWARDS[4], Inez FUNG[2]

[1]Chinese Academy of Sciences, [2]University of California, Berkeley, [3]Xi'an Jiaotong University, [4]University of Minnesota

IG18-D4-PM1-323-002 | IG18-A012 (Invited)

Arid Central Asia Drier Hydroclimatic Conditions Corresponded to Holocene Warmer Intervals

Hai XU[1#+]

[1]Tianjin University

IG18-D4-PM1-323-003 | IG18-A005

A 450-year-long Indian Summer Monsoon Record from Myanmar Speleothem Trace Elements

Guangxin LIU[1#+], Xianfeng WANG[1], Zhiyong ZHU[2], Hong-Wei CHIANG[3], Shufang YUAN[1], Lin Thu AUNG[1,4], Phyo Maung MAUNG[1]

[1]Nanyang Technological University, [2]Chinese Academy of Geological Sciences, [3]National Taiwan University, [4]Myanmar Geosciences Society

IG18-D4-PM1-323-004 | IG18-A014

Nd Isotopic Composition in the Northern Indian Ocean Since Late Quaternary: A Comparative Study of Seawater and Foraminifera

Zhaojie YU[1#+]

[1]Chinese Academy of Sciences

IG17-D4-PM1-323-005 | IG17-A017

Surface Gas Monitoring of a CO2 Storage Injection Site at the CSIRO In Situ Laboratory Project

Matthew MYERS[1#+], Cameron WHITE[1], Bobby PEJCIC[1], Andrew FEITZ[2], Jennifer ROBERTS[3], Yun-Yeong OH[4], Liang XU[5], Linda STALKER[1], Chris DYT[1], Ludovic RICARD[1], Karsten MICHAEL[1], Arsham AVIJEGON[1], Allison HORTLE[1]

[1]Commonwealth Scientific and Industrial Research Organisation, [2]Geoscience Australia, [3]University of Strathclyde, [4]Korea University, [5]Chinese Academy of Sciences

IG17-D4-PM1-323-006 | IG17-A011 (Invited)

Geomechanical Footprint for Downhole Water Injection via Distributed Optic Fiber Sensing Integrating hybrid Brillouin-Rayleigh Backscattering

Yankun SUN[1#+], Ziqiu XUE[1], Tsutomu HASHIMOTO[1], Xinglin LEI[2], Yi ZHANG[1]

[1]Research Institute of Innovative Technology for the Earth, [2]National Institute of Advanced Industrial Science and Technology

IG17-D4-PM1-323-007 | IG17-A019

Site Selection, Geological Characterization and Structural Stability Assessment of an Underground CO2 Storage in the Miocene Janggi Basin, SE Korea
Min-Cheol KIM[1+], Rae-Yoon JEONG[1], Moon SON[1#]
[1]*Pusan National University*

IG17-D4-PM1-323-008 | IG17-A013

Observation of Changes in Vertical Sp Gradient Using Shallow Wells at the Seashore Test Site, Japan
Takuya HORIKAWA[1#+], Tsuneo ISHIDO[1], Hiroki GOTO[1], Yuji NISHI[1]
[1]*National Institute of Advanced Industrial Science and Technology*

AS14 / The Science and Prediction of Tropical Cyclones

Thu - 01 Aug | Nicoll 3

Time 13:30-15:30
Chair(s) Brian SODEN, *University of Miami*
Kosuke ITO, *University of the Ryukyus*

AS14-D4-PM1-Nicoll 3-001 | AS14-A009

Binary Interaction Between TC Chanthu (2016) and a Nearby Cold Low
Miyabi HIGA[1], Kosuke ITO[1#+], Johnny CHAN[2]
[1]*University of the Ryukyus,* [2]*City University of Hong Kong*

AS14-D4-PM1-Nicoll 3-002 | AS14-A040

Correlation Between Northward Migration of Tropical Cyclone Tracks and Pacific Decadal Oscillation in the Western North Pacific
Minkyu LEE[1+], Dong-Hyun CHA[1#], Taehyung KIM[1], Woojin CHO[1]
[1]*Ulsan National Institute of Science and Technology*

AS14-D4-PM1-Nicoll 3-003 | AS14-A043

Saharan Dust on the Genesis and Development of Hurricanes Earl and Danielle (2010)
Bowen PAN[1+], Yuan WANG[2], Jenshan HSIEH[1], Renyi ZHANG[1#]
[1]*Texas A&M University,* [2]*California Institute of Technology*

AS14-D4-PM1-Nicoll 3-004 | AS14-A011

The Characteristics of Tropical Cyclone Formation in an Environment with Strong Low Frequency Vorticity in the Western North Pacific
Yi-Huan HSIEH[1#+], Cheng-Shang LEE[1], Hsu-Feng TENG[2]
[1]*National Taiwan University,* [2]*National Center for Atmospheric Research*

AS14-D4-PM1-Nicoll 3-005 | AS14-A004

The Dependence of Northwest Pacific Tropical Cyclone Intensification Rates on Environmental Factors
Xinyan LU[1#+], Xuguang WANG[2], Lance M. LESLIE[2]
[1]*National Meteorological Centre,* [2]*University of Oklahoma*

AS14-D4-PM1-Nicoll 3-006 | AS14-A002

Variation of Tropical Cyclone Track in the Western North Pacific During ENSO Developing and Decaying Years
Li TAO[1#+], Peiyan XIE[1]
[1]*Nanjing University of Information Science & Technology*

AS14-D4-PM1-Nicoll 3-007 | AS14-A007

Evaluation of the Monthly Potential of the 2018 Typhoon Activity and the Effect of the Positive PMM and SST of the Eastern Northwestern Pacific
Takahiro ISHIYAMA[1#+], Masaki SATOH[1]
[1]*The University of Tokyo*

AS14-D4-PM1-Nicoll 3-008 | AS14-A025

Statistical Relationship Between Upper Ocean Heat Content and Sea Surface Temperature Underlying Tropical Cyclone Rapid Intensification in the Western North Pacific
Cheng-Hsiang CHIH[1+], Chun-Chieh WU[1#]
[1]*National Taiwan University*

ST19 / Hemispheric Symmetry and Asymmetry in the Solar-terrestrial Coupling
ST20 / Solar Flare Forecasting Using Machine Learning

Thu - 01 Aug | MR308

Time 16:00-18:00
Chair(s) Kan LIOU, *The Johns Hopkins University Applied Physics Laboratory*
Jeng-Hwa YEE, *The Johns Hopkins University Applied Physics Laboratory*
Long XU, *Chinese Academy of Sciences*

ST19-D4-PM2-308-001 | ST19-A002

Dependence of the Spring-autumnal Asymmetry in Geomagnetic Activity on the Solar Main Dipole Magnetic Field Polarity over Last 140 Years
Hao LUO[1#+]
[1]*Chinese Academy of Sciences*

ST19-D4-PM2-308-002 | ST19-A006 (Invited)

Evidence for Unipolar Bow Shock Current Closure Through the Ionosphere for IMF by
Ramon LOPEZ[1#+], Fatemeh BAGHERI[1], Pauline DREDGER[1]
[1]*University of Texas at Arlington*

ST19-D4-PM2-308-003 | ST19-A001

Hemispheric Asymmetry in Ionospheric Convection, Field-aligned Currents, and Joule Heating
Gang LU[1#+]
[1]*National Center for Atmospheric Research*

ST20-D4-PM2-308-004 | ST20-A007 (Invited)

Deep Neural Networks Applied to Predictions of Solar Flares and Eruptions
Naoto NISHIZUKA[1#+], Yuki KUBO[1], Komei SUGIURA[1], Takahiro HASEGAWA[2,3], Mitsue DEN[1], Mamoru ISHII[1]
[1]*National Institute of Information and Communications Technology,* [2]*The University of Tokyo,* [3]*Japan Aerospace Exploration Agency*

ST20-D4-PM2-308-005 | ST20-A008 (Invited)

On MUSER Observations for Solar Flares and Space Weather Monitoring
Yihua YAN[1,2#+]
[1]*Chinese Academy of Sciences,* [2]*University of Chinese Academy of Sciences*

ST20-D4-PM2-308-006 | ST20-A001

Solar Flare Occurrence Forecast and Onset Time Estimate Using Long Short-term Memory Neural Network
Xin HUANG[1#+], Huaning WANG[1], Long XU[1]
[1]*Chinese Academy of Sciences*

ST20-D4-PM2-308-007 | ST20-A005

Solar Flare Prediction Using Multiple Wavelengths of Solar-image Data
Xuexin YU[1,2#+], Long XU[1], Xin HUANG[1]
[1]*Chinese Academy of Sciences,* [2]*University of Chinese Academy of Sciences*

SE03 / EPreparation Process of Earthquakes and Related Phenomena - Potential Precursory Anomalies, Earthquake Hydrology, Geochemistry and Other Phenomena Related to Induced and Natural Earthquakes

Thu - 01 Aug | Nicoll 2

Time 16:00-18:00

Chair(s) Peng HAN, *Southern University of Science and Technology*
Yinlin JI, *Nanyang Technological University*

SE03-D4-PM2-Nicoll 2-001 | SE03-A009 (Invited)

Injection-driven Fracture Instability and Seismic Moment Release
Yinlin JI[1+], Wei WU[1#]
[1]*Nanyang Technological University*

SE03-D4-PM2-Nicoll 2-002 | SE03-A002

Numerical Analysis on the Regional Seismic Activity After Water Storage in the Baihetan Reservoir
Tiantian DOU[1#+], Huihong CHENG[1], Huai ZHANG[1], Yaolin SHI[1]
[1]*University of Chinese Academy of Sciences*

SE03-D4-PM2-Nicoll 2-003 | SE03-A016

The Observatory Groundwater Anomalies Before February 4 2018 Hualian Earthquake Swarms
Fuqiong HUANG[1#+], Jun ZHONG[1]
[1]*China Earthquake Administration*

SE03-D4-PM2-Nicoll 2-004 | SE03-A013 (Invited)

Southwestern Colombian Subduction Zone Structure from Spatial b-value Map of Intermediate-depth Earthquakes
Ying CHANG[1#+], Peng HAN[1], Miao MIAO[1]
[1]*Southern University of Science and Technology*

SE03-D4-PM2-Nicoll 2-005 | SE03-A012

Time-dependent Earthquake Forecast Incorporating Seismo-magnetic Data
Peng HAN[1#+], Jiancang ZHUANG[2], Katsumi HATTORI[3]
[1]*Southern University of Science and Technology,* [2]*Institute of Statistical Mathematics,* [3]*Chiba University*

SE03-D4-PM2-Nicoll 2-006 | SE03-A008

Petrogenesis of Fayalite Bearing Ferrosyenites from Settupalle Alkaline Complex, Southern India: Insight from Whole Rock Geochemistry
Saikrishna KANDUKURI[1#+]
[1]*Kakatiya University*

SE03-D4-PM2-Nicoll 2-007 | SE03-A007

Reexamination of Cosesmic Strain Caused by Historical Earthquakes in Japan
Yasuyuki KANO[1#+]
[1]*The University of Tokyo*

ST15 / MHD Waves and Instabilities in the Solar Atmosphere: Identification and Modelling
ST10 / The Magnetopause and the Dayside Solar Wind - Magnetosphere Interaction

Thu - 01 Aug | MR304

Time 16:00-18:00

Chair(s) Viktor FEDUN, *The University of Sheffield*
Sergiy SHELYAG, *Deakin University*
Ramon LOPEZ, *University of Texas at Arlington*

ST15-D4-PM2-304-001 | ST15-A001 (Invited)

No Unique Solution to the Seismological Problem of Standing Kink Waves
Marcel GOOSSENS[1#+], Inigo ARREGUI[2]
[1]*KU Leuven,* [2]*Instituto de Astrofisica de Canarias*

ST15-D4-PM2-304-002 | ST15-A002 (Invited)

Synthetic Ultraviolet Emissions from Coronal Loops Experiencing Fast Sausage Oscillations
Bo LI[1#+], Mijie SHI[1]
[1]*Shandong University*

ST15-D4-PM2-304-003 | ST15-A003 (Invited)

Coronal Density and Temperature Calculated Using SDO/AIA by Forward Modelling EUV Emission and Seismology
David PASCOE[1#+]
[1]*KU Leuven*

ST15-D4-PM2-304-004 | ST15-A006

Comparison of Radiative and Seismic Responses of Two Flares: September 6th, 2011 and September, 6th, 2017
Sergei ZHARKOV[1#+], Valentina ZHARKOVA[2], Sarah MATTHEWS[3], Connor MACRAE[1], Malcolm DRUETT[2], Ingolf DAMMASCH[4]
[1]*University of Hull,* [2]*Northumbria University,* [3]*University College London,* [4]*Royal Observatory of Belgium*

ST15-D4-PM2-304-005 | ST15-A007

Temperature Fluctuations in the Solar Chromosphere Observed with ALMA
Shahin JAFARZADEH[1#+], Sven WEDEMEYER[1], Mikolaj SZYDLARSKI[1]
[1]*University of Oslo*

ST10-D4-PM2-304-006 | ST10-A002

Characterizing the Neutral Line by the Curvature of the Magnetic Field in its Vicinity
Y.J. MA[1#+], Chris RUSSELL[1], Yi QI[1], Cong ZHAO[1], Robert STRANGEWAY[1], William PATERSON[2], Barbara GILES[3], James BURCH[4], Roy TORBERT[5]
[1]*University of California, Los Angeles,* [2]*National Aeronautics and Space Administration,* [3]*NASA Goddard Space Flight Center,* [4]*Southwest Research Institute,* [5]*University of New Hampshire*

ST10-D4-PM2-304-007 | ST10-A003

Striking Variability of the Sq Current: Causality and Monitoring
Jesper GJERLOEV[1#+], Matthew FRIEL[1]
[1]The Johns Hopkins University Applied Physics Laboratory

ST10-D4-PM2-304-008 | ST10-A006

A Conceptual Model Toward Understanding the Generation of Throat Aurora
Desheng HAN[1#+]
[1]Tongji University

ST10-D4-PM2-304-009 | ST10-A007

Statistics on the Magnetosheath Properties Related to Magnetopause Reconnection
Hui ZHANG[1#+], Suiyan FU[2], Zuyin PU[2], Jianyong LU[3], Jun ZHONG[4], Changbo ZHU[1], Weixing WAN[1], Libo LIU[1]
[1]Chinese Academy of Sciences, [2]Peking University, [3]Nanjing University of Information Science & Technology, [4]Institute of Geology and Geophysics, Chinese Academy of Sciences

AS21 / Understanding Light-absorbing Carbon Aerosols Using Observations and Models

Thu - 01 Aug | MR303

Time 16:00-18:00
Chair(s) Chao LIU, *Nanjing University of Information Science & Technology*
Byung-Gon KIM, *Gangneung-Wonju National University*

AS21-D4-PM2-303-001 | AS21-A001

Elucidating the Temperature Inversion in China in Association with Black Carbon
Jianping GUO[1#+]
[1]Chinese Academy of Meteorological Sciences

AS21-D4-PM2-303-002 | AS21-A010 (Invited)

Black Carbon - Hydrometeor Interactions During Wet Scavenging in Mixed-phase Clouds Observed at a Mountain Site
Dantong LIU[1#+], Shuo DING[1], Delong ZHAO[2]
[1]Zhejiang University, [2]Beijing Weather Modification Office

AS21-D4-PM2-303-003 | AS21-A020

The Impact of the Aerosol Direct Radiative Forcing on Deep Convection and Air Quality in the Pearl River Delta Region
Steve YIM[1#+]
[1]The Chinese University of Hong Kong

AS21-D4-PM2-303-004 | AS21-A002 (Invited)

Elucidating Variation and Trend of Black Carbon in China Based on Long-term Ground Observations
Yong ZHANG[1#+]
[1]China Meteorological Administration

AS21-D4-PM2-303-005 | AS21-A011 (Invited)

Black Carbon Aging Under Urban Polluted Environment Using a Novel Quality Chamber
Song GUO[1#+], Min HU[1], Jianfei PENG[2], Weizhao XU[1], Zhuofei DU[1], Dongjie SHANG[1], Hui WANG[1], Rongzhi TANG[1], Ying YU[1], Ruizhe SHEN[1], Rui TAN[1], Kefan LIU[1], Shiyi CHEN[1], Limin ZENG[1], Renyi ZHANG[2]
[1]Peking University, [2]Texas A&M University

AS21-D4-PM2-303-006 | AS21-A005

Aerosol Effect from Biomass Burning Emissions Around Southeast Asia in Spring Under El Nino Events
Sixiao YANG[1#+], William LAU[2], Song YANG[1], Zhenming JI[1]
[1]Sun Yat-sen University, [2]University of Maryland

AS21-D4-PM2-303-007 | AS21-A004

Long-term Trend of Visibility and its Relationship with Wind Speed in China
Lijuan CAO[1#+]
[1]China Meteorological Administration

HS12 / Water Resilience in Coastal Areas: Processes, Consequences, and Potentials

Thu - 01 Aug | MR330

Time 16:00-18:00
Chair(s) Xuan YU, *Sun Yat-sen University*
Jinliang HUANG, *Xiamen University*

HS12-D4-PM2-330-001 | HS12-A001 (Invited)

Prediction of Tsunami-induced Groundwater Salinization in Coastal Areas: 2-D Numerical Modeling of the Niijima Island, Japan
Jiaqi LIU[1#+], Tomochika TOKUNAGA[1]
[1]The University of Tokyo

HS12-D4-PM2-330-002 | HS12-A008 (Invited)

Coupled Effects of Climate Variability and Land Use Pattern on Surface Water Quality: An Elasticity Perspective and Watershed Health Indicators
Ayu ERVINIA[1+], Jinliang HUANG[1#], Yaling HUANG[1], Jingyu LIN[1]
[1]Xiamen University

HS12-D4-PM2-330-003 | HS12-A009 (Invited)

A Coupling Modeling Approach for Water Resource Management in a River-reservoir Continuum Within a Coastal China Watershed
Zhenyu ZHANG[1+], Jinliang HUANG[2#], Min ZHOU[2]
[1]Xiaman University, [2]Xiamen University

HS12-D4-PM2-330-004 | HS12-A003

A Flood Mitigation Decision Framework to Characterize the Impact of Climate Change and Urbanization in Coastal Cities
Velautham DAKSIYA[1#+], Pradeep MANDAPAKA[1], Edmond LO[1]
[1]Nanyang Technological University

HS12-D4-PM2-330-005 | HS12-A007

Mechanisms, Classification, and Vulnerability of Pumping-induced Seawater Intrusion in Heterogeneous Aquifers
Xuan YU[1#+], Holly MICHAEL[2]
[1]Sun Yat-sen University, [2]University of Delaware

HS18 / Ecohydrological Processes and Modelling in a Changing Environment

Thu - 01 Aug | MR329

Time 16:00-18:00

Chair(s) Yuting YANG, *Tsinghua University*
Huimin LEI, *Tsinghua University*

HS18-D4-PM2-329-001 | HS18-A027

Eco-hydrological Modelling for Greater Nee Soon Freshwater Swamp Forest

Jiandong LIU[1#+], Dongeon KIM[1,2], Canh Tien Trinh NGUYEN[1], Yixiong CAI[3], Shie-Yui LIONG[1]

[1]National University of Singapore, [2]University of Nice Sophia Antipolis, [3]National Parks Board

HS18-D4-PM2-329-002 | HS18-A026

The Asynchronous Response of Carbon Gain and Water Loss Generate Spatio-temporal Pattern of WUE Along Elevation Gradient in Southwest China

Xiangyang SUN[1#+], Zhaoyong HU[2], Song CHUNLIN[2]

[1]Institute of Mountain Hazards and Environment, Chinese Academy of Sciences, [2]Chinese Academy of Sciences

HS18-D4-PM2-329-003 | HS18-A024

Hydrological Effect of Afforestation Practices over the Three-north Region of China

Xianhong XIE[1#+], Shanshan MENG[1]

[1]Beijing Normal University

HS18-D4-PM2-329-004 | HS18-A015

Effect of Changes in Throughfall on Fluxes of Greenhouse Gases, Dissolved Organic Carbon and N Leaching Under a Temperate Mature Forest, Northeastern China

Xingkai XU[1,2#+], Duan CUNTAO[1], Haohao WU[1], Han LIN[1], Xianbao LUO[1]

[1]Chinese Academy of Sciences, [2]University of Chinese Academy of Sciences

HS18-D4-PM2-329-005 | HS18-A018

Sensitivity Analysis and Parameter Screening of CLM Hydrologic Parameters

Wei GONG[1#+], Qingyun DUAN[1,2], Chong ZHANG[1]

[1]Beijing Normal University, [2]Hohai University

HS18-D4-PM2-329-006 | HS18-A011

A Model for Geomorphological Changes of Tidal Creeks and Mudflat

Ting-Yu CHENG[1+], Shang-Shu SHIH[1#]

[1]National Taiwan University

HS18-D4-PM2-329-007 | HS18-A012

Quantitative Assessment of Hydrological Services Provided by Wetlands in a Northeast China Watershed

Yanfeng WU[1#], Guangxin ZHANG[1+], Alain N. ROUSSEAU[2]

[1]Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences, [2]Eau Terre Environnement

HS17 / Water-food-energy Nexus Under Uncertain Future: Data, Tools, Modelling and Knowledge Integration

Thu - 01 Aug | MR328

Time 16:00-18:00

Chair(s) Jorge PENA ARANCIBIA, *Commonwealth Scientific and Industrial Research Organisation*

HS17-D4-PM2-328-001 | HS17-A011

Evaluation on Water-energy-food Collaborative Security in China

Cuishan LIU[1#+], Junliang JIN[1], Liu JING[1], Yanli LIU[1], Xiao LI[2]

[1]Nanjing Hydraulic Research Institute, [2]Shandong Agricultural University

HS17-D4-PM2-328-002 | HS17-A004

Probabilistic Approach for Regional Groundwater Balance in the Ganga Basin Using Land Surface and Groundwater Models

Sreekanth J[1#+], Akhilesh NAIR[2], Indu J.[2], Kaushika G.S.[3]

[1]CSIRO Land and Water, [2]Indian Institute of Technology Bombay, [3]Indian Institute of Technology Roorkee

HS17-D4-PM2-328-003 | HS17-A012 (Invited)

Exploring Stakeholder Pathways and Future Water, Energy, and Land Nexus Scenarios in the Indus Basin

Adriano VINCA[1#], Simon PARKINSON[1], Barbara WILLAARTS[1], Piotr MAGNUSZEWSKI[1], Simon LANGAN[1], Ting TANG[1+], Ansir ILYAS[2], Yaoping WANG[3], Edward BYERS[1], Peter BUREK[1], Yoshihide WADA[1], Volker KREY[1], Keywan RIAHI[1]

[1]International Institute for Applied Systems Analysis (IIASA), [2]Lahore University of Management Sciences, [3]The Ohio State University

HS17-D4-PM2-328-004 | HS17-A002

Impacts of Hydro-climatic Variability on the Energy System of the Greater Mekong Sub-region

A.F.M. Kamal CHOWDHURY[1#+], Thanh Duc DANG[1], Stefano GALELLI[1]

[1]Singapore University of Technology and Design

HS17-D4-PM2-328-005 | HS17-A013

Water Resources Management for Large Coal-power Bases in Yellow River Under Nexus Approach

Xiaojun WANG[1#+], Jianyun ZHANG[1], Shamsuddin SHAHID[2], Juan GAO[3]

[1]Nanjing Hydraulic Research Institute, [2]Universiti Teknologi Malaysia, [3]Hohai University

HS17-D4-PM2-328-006 | HS17-A014

Energy or Food? An Assessment of the Tradeoff Between the Capacity of Hydropower Generation and Food Security in Africa in 2050s

Xingcai LIU[1#+], Wenfeng LIU[2], Qiuhong TANG[1], Hong YANG[3]

[1]Chinese Academy of Sciences, [2]Institute Pierre Simon Laplace, [3]Swiss Federal Institute of Aquatic Science and Technology

HS17-D4-PM2-328-007 | HS17-A005

Irrigation Expansion, Groundwater Use and the Hydrologic Cycle in Northwest Bangladesh

Jorge PENA ARANCIBIA[1#+], Mainuddin MOHAMMED[1], Mobin AHMAD[1], Geoff HODGSON[1], Faisal KHANDAKAR[2], Catherine TICEHURST[1], Mohammed MANIRUZZAMAN[2], Mahboob GOLAM[2], Mac KIRBY[1]

[1]Commonwealth Scientific and Industrial Research Organisation, [2]Bangladesh Rice Research Institute

PS14 / Small Body Explorations by Current and Future Missions

Thu - 01 Aug | MR310

Time 16:00-18:00

Chair(s) Makoto YOSHIKAWA, *Japan Aerospace Exploration Agency*
Xian SHI, *Max Planck Institute for Solar System Research*

PS14-D4-PM2-310-001 | PS14-A008 (Invited)

An Engineering Model of the Near-nucleus Environment of Main Belt Comet 133P/Elst-Pizarro
Ying LIAO[1#+], Liang Liang YU[1], Ian LAI[2], Wing-Huen IP[2]
[1]Macau University of Science and Technology, [2]National Central University

PS14-D4-PM2-310-002 | PS14-A024 (Invited)

Constellation of Heterogeneous Wide-field Near-earth Object Surveyors
Zhuoxi HUO[1#+], Jiangchuan HUANG[2], Ji-Lin ZHOU[3], Linzhi MENG[2], Ming YANG[3], Susu SHAN[4]
[1]Qian Xuesen Laboratory of Space Technology, [2]China Academy of Space Technology, [3]Nanjing University, [4]National Astronomical Observatories, Chinese Academy of Sciences

PS14-D4-PM2-310-003 | PS14-A019 (Invited)

Asteroid Target Selection Method Based on Asteroids Database
Xiaohui WANG[1#+], Yuxian YUE[1], Haoran GU[1]
[1]Beihang University

PS14-D4-PM2-310-004 | PS14-A015 (Invited)

The Proposed Comet Interceptor Mission to a Dynamically New Comet
Cecilia TUBIANA[1#+], Geraint JONES[2], Colin SNODGRASS[3]
[1]Max Planck Institute for Solar System Research, [2]University College London, [3]University of Edinburgh

PS14-D4-PM2-310-005 | PS14-A029 (Invited)

Centaurs: Transition Bodies Between Comets and Icy Satellites?
Daniel BOICE[1#+]
[1]Scientific Studies and Consulting

PS14-D4-PM2-310-006 | PS14-A010 (Invited)

The Conundrum of the TNO Color Dichotomy – The Answer is Blow'n in the Wind
Wing-Huen IP[1#+], Po-Yen LIU[1]
[1]National Central University

PS14-D4-PM2-310-007 | PS14-A020

The Dynamical Evolution of the Retrograde TNOs
I Putu Wira HADIPUTRAWAN[1#+], Wing-Huen IP[1]
[1]National Central University

AS28 / Theory, Observations and Modelling of Maritime Continent Weather and Climate

Thu - 01 Aug | MR311

Time 16:00-18:00

Chair(s) Masaki KATSUMATA, *Japan Agency for Marine-Earth Science and Technology*
Tieh-Yong KOH, *Singapore University of Social Sciences*

AS28-D4-PM2-311-001 | AS28-A023 (Invited)

Equatorial Waves and High Impact Weather in South East Asia
Samantha FERRETT[1#+], Steve WOOLNOUGH[1], Gui-Ying YANG[1], John METHVEN[1], Chris HOLLOWAY[1], Kevin HODGES[1]
[1]University of Reading

AS28-D4-PM2-311-002 | AS28-A019

Modulation of the Boreal Winter Peak Rainfall over the South China Sea and Indo-pacific Maritime Continent by MJO and CCEWs
Yuan-huai TSAI[1], Mong-Ming LU[1#+], Chung-Hsiung SUI[1]
[1]National Taiwan University

AS28-D4-PM2-311-003 | AS28-A022

Tropical Storm Pabuk: Its Formation, Evolution and Impact Based on Metocean Buoy Data
Mohd Fadzil Firdzaus MOHD NOR[1#+], Sheeba Nettukandy CHENOLI[1], Azizan Abu SAMAH[1], Muhammad Yunus AHMAD MAZUKI[1], Noraini MOHYEDDIN[1], Yue FANG[2], Mohd Fadzil MOHD AKHIR[3]
[1]University of Malaya, [2]State Oceanic Administration, [3]Universiti Malaysia Terengganu

AS28-D4-PM2-311-004 | AS28-A020

Observed Interaction of MJO and Diurnal Cycle Using Weather Radar in Bengkulu
Donaldi PERMANA[1#+], Erwin MAKMUR[2], Thahir HUTAPEA[2], Jaka PASKI[2], Dodi ARDIANSYAH[2], Alfan PRAJA[2]
[1]BMKG - Indonesian Agency for Meteorology, Climatology and Geophysics, [2]Indonesian Agency for Meteorology, Climatology and Geophysics

AS28-D4-PM2-311-005 | AS28-A014

Characteristics of Precipitation Systems Around the Southwestern Coast of Sumatra During the Passage of the Convective Envelope of an MJO Event
Biao GENG[1#+], Masaki KATSUMATA[1]
[1]Japan Agency for Marine-Earth Science and Technology

AS28-D4-PM2-311-006 | AS28-A026

Topographic Influence of the Madden-Julian Oscillation During Pre-YMC 2015
Reni SULISTYOWATI[1#+], Lena SUMARGANA[1], Fadli SYAMSUDIN[1], Shuichi MORI[2]
[1]Agency for the Assessment and Application of Technology, [2]Japan Agency for Marine-Earth Science and Technology

AS28-D4-PM2-311-007 | AS28-A011

Multi-scale Climate Processes and Rainfall Variability in Sumatra, Peninsula Malaysia and Singapore Associated with ENSO in Boreal Fall and Winter
Jianhua QIAN[1#+]
[1]Meteorological Service Singapore

AS45 / Air Quality Modeling, Forecasting, and Data Assimilation

Thu - 01 Aug | MR327

Time 16:00-18:00

Chair(s) Daisuke GOTO, *National Institute for Environmental Studies*
Myong-In LEE, *Ulsan National Institute of Science and Technology*

AS45-D4-PM2-327-001 | AS45-A003

Application of a Multi-model Ensemble Method for PM2.5 Estimation
Daisuke GOTO[1#+], Seiji SUGATA[1], Tie DAI[2], Yueming CHENG[2], Teruyuki NAKAJIMA[3]
[1]National Institute for Environmental Studies, [2]Chinese Academy of Sciences, [3]Japan Aerospace Exploration Agency

AS45-D4-PM2-327-002 | AS45-A013

An Improvement Study on Air Quality Forecasting Modeling Improvement in Korea
Limseok CHANG[1#+], Yonghee LEE[1], Insuk SUH[1], Misuk JUNG[1], Jisu MYOUNG[1], Taehee KIM[1]
[1]National Institute of Environmental Research

AS45-D4-PM2-327-003 | AS45-A007

A Study on Optimal Interpolation Method for Combination of the CMAQ-predicted AOD and Remote-sensing Data
Yonghee LEE[1#+], Taehee KIM[1], Jisu MYOUNG[1], Insuk SUH[1], Misuk JUNG[1], Limseok CHANG[1]
[1]National Institute of Environmental Research

AS45-D4-PM2-327-004 | AS45-A001

Ensemble Data Assimilation and Inverse Modeling of Aerosols Using Data from Fengyun-4
Ping WANG[1#+]
[1]Chinese Academy of Meteorological Sciences

AS45-D4-PM2-327-005 | AS45-A008

Experimental Air Quality Forecasts in Korea Using the WRF-Chem Model
Myong-In LEE[1#+], Ganghan KIM[1], Seunghee LEE[1], Hyuckjae LEE[1], Chang-Keun SONG[1], Hyeon-Kook KIM[1], Soyoung HA[2], Zhiquan LIU[2], Wei SUN[2]
[1]Ulsan National Institute of Science and Technology, [2]National Center for Atmospheric Research

AS45-D4-PM2-327-006 | AS45-A011

Development of Daily Particulate Matter Prediction System Using a Deep Long Short-term Memory Neural Network Model
Hyun Soo KIM[1+], In Yong PARK[1], Chul Han SONG[1#], Hong Kook KIM[1]
[1]Gwangju Institute of Science and Technology

AS45-D4-PM2-327-007 | AS45-A015

Modeling of Nocturnal Particulate Matters over Korean Peninsula by Regional Air Quality Model
Hyun-Young JO[1+], Cheol-Hee KIM[1#], Hyo-Jung LEE[1], Yu-Jin JO[1]
[1]Pusan National University

AS45-D4-PM2-327-008 | AS45-A016

Sensitivity of PBL Parameterizations on PM10 and Ozone Simulation Using Chemical Transport Model WRF-Chem over a Sub-tropical Urban Airshed in India
Medhavi GUPTA[1#+], Manju MOHAN[1]
[1]Indian Institute of Technology Delhi

AS47 / Storms, Lightning, and Their Effects on Human Society

Thu - 01 Aug | MR302

Time 16:00-18:00

Chair(s) Doo-Sun PARK, *Chosun University*
Yoav YAIR, *IDC Herzliya*

AS47-D4-PM2-302-001 | AS47-A002

Harvesting and Storing Electrical Energy from Lightning
Tai-Yin HUANG[1#+]
[1]Penn State Lehigh Valley

AS47-D4-PM2-302-002 | AS47-A004

Lightning and Aerosol Relationship: Similarities and Differences Between Humid, Semi-humid and Arid Regions of North-India
S. P. JNANESH[1], D.M. LAL[1], Sachin GHUDE[1], Suresh TIWARI[1], Manoj Kumar SRIVASTAVA[2#+]
[1]Indian Institute of Tropical Meteorology, [2]Banaras Hindu University

AS47-D4-PM2-302-003 | AS47-A006 (Invited)

Prediction of the Typhoon Intensity Development by Monitoring Lightning Activity
Mitsuteru SATO[1#+], Yukihiro TAKAHASHI[1], Hisayuki KUBOTA[1], Kozo YAMASHITA[2], Jun-Ichi HAMADA[3], Joel MARCIANO[4]
[1]Hokkaido University, [2]Ashikaga Institute of Technology, [3]Tokyo Metropolitan University, [4]Advanced Science and Technology Institute

AS47-D4-PM2-302-004 | AS47-A001

The Sensitivity of East Mediterranean Winter Thunderstorms to Aerosols and Pollution
Yoav YAIR[1#+], Barry LYNN[2]
[1]IDC Herzliya, [2]Hebrew University of Jerusalem

AS47-D4-PM2-302-005 | AS47-A008

Modulation of Tropical Cyclone Rainfall Area by Sea Surface Temperature and Environmental Flows
Dasol KIM[1+], Chang-Hoi HO[1#], Doo-Sun PARK[2], Johnny CHAN[3], Youngsun JUNG[4]
[1]Seoul National University, [2]Chosun University, [3]City University of Hong Kong, [4]The University of Oklahoma

AS47-D4-PM2-302-006 | AS47-A013

Dynamical Downscaling of Typhoon Jebi for the Storm Surge
Yoshiyuki KAJIKAWA[1#+], Tsuyoshi YAMAURA[2]
[1]Kobe University, [2]RIKEN Advanced Institute for Computational Science

AS47-D4-PM2-302-007 | AS47-A014

Disaster Mitigation Strategies for Extreme Severe Storms in South Asian Countries
Toru TERAO[1#+], Someshwar DAS[2], Ajay GAIROLA[3], Hirohiko ISHIKAWA[4]
[1]Kagawa University, [2]Central University of Rajasthan, [3]Indian Institute of Technology Roorkee, [4]Kyoto University

AS47-D4-PM2-302-008 | AS47-A017

Comparison Between Tropical Storm "PABUK" In 2019 and the Past Extreme Events in Thailand
Karnjana SAENGPRAPAI[1#+], Supaluk VIMALA[1], Sasiprapa TANYONG[2], Kanoksri SARINNAPAKORN[2]
[1]Hydro-Informatics Institute (Public Organization), [2]Hydro and Agro Informatics Institute

ST01 / Systems Science Approaches to Heliophysics Modeling and Data Analysis
ST07 / Solar Super Storms: in the Past, Present and Future

Thu - 01 Aug | MR301

Time 16:00-18:00

Chair(s) Simon WING, *The Johns Hopkins University*
Jay JOHNSON, *Andrews University*

ST01-D4-PM2-301-001 | ST01-A001

Solar Wind Turbulence Effects on the Magnetosphere
Simon WING[1#+], Joe BOROVSKY[2], Jay JOHNSON[3]
[1]The Johns Hopkins University, [2]Space Science Institute, [3]Andrews University

ST01-D4-PM2-301-002 | ST01-A002 (Invited)

A System Science Approach to the Complex Magnetosphere
Juan VALDIVIA[1#+], Benjamin TOLEDO[1], Jose ROGAN[1], Sylvain BLUNIER[1]
[1]Universidad de Chile

ST01-D4-PM2-301-003 | ST01-A003 (Invited)

Data Analytics Approaches to STP: Statistical Characterization of Solar Cycle Variation in Space Climate, and Dynamical Networks Approach to Space Weather
Sandra CHAPMAN[1#+], Elisabeth TINDALE[1], Lauren ORR[1], Aisling BERGIN[1], Jesper GJERLOEV[2], Nicholas WATKINS[1]
[1]University of Warwick, [2]The Johns Hopkins University Applied Physics Laboratory

ST01-D4-PM2-301-004 | ST01-A008 (Invited)

Now-casting and Predicting the Kp Index Using Historical Values and Real-time Observations
Yuri SHPRITS[1#+], Ruggero VASILE[2], Irina ZHELAVSKAYA[2]
[1]GFZ German Research Center for Geosciences, [2]GFZ German Research Centre for Geosciences

ST07-D4-PM2-301-005 | ST07-A003

Modeling of the Near-earth Plasma Environment for the Extreme Geomagnetic Storms
Natalia BUZULUKOVA[1,2#+], Mei-Ching FOK[1], Alex GLOCER[1], Robert REDMON[3], Nat GOPALSWAMY[1]
[1]NASA Goddard Space Flight Center, [2]University of Maryland, College Park, [3]National Oceanic and Atmospheric Administration

ST07-D4-PM2-301-006 | ST07-A005

The Role of Global-MHD and Integrated Radiation Belt Models in Forecasting Extreme Space Weather Events
Ravindra DESAI[1#+], Jonathan EASTWOOD[1], Lars MEJNERSTEN[1], Joseph EGGINGTON[1], Richard HORNE[2], Nigel MEREDITH[2], Jeremy CHITTENDEN[1]
[1]Imperial College London, [2]British Antarctic Survey

OS04 / Extreme Events: Tropical Cyclones, Intense Rainfall, Dust Storm in the Warming Environment of the Asia-oceania Region
OS03 / Changing Climate and Adjusting Ecosystem in the Arctic and Antarctic Ocean

Thu - 01 Aug | Nicoll 1

Time 16:00-18:00

Chair(s) Narayana A. C., *University of Hyderabad*
Prasanna Kumar SUKUMARAN, *National Institute of Oceanography*
Meibing JIN, *Nanjing University of Information Science & Technology*

OS04-D4-PM2-Nicoll 1-001 | OS04-A009

Indian Monsoon Extremes: The Unique Setting in the Bob and Links to Hydrological Cycle
Ankur SRIVASTAVA[1#+], Suryachandra Rao ANGULURI[1], Subimal GHOSH[2]
[1]Indian Institute of Tropical Meteorology, [2]Indian Institute of Technology Bombay

OS04-D4-PM2-Nicoll 1-002 | OS04-A013

Variability and Drivers of Northeast Asian Marine Heatwaves During Long-term Summer
Seonju LEE[1#+], Myung-Sook PARK[1], Minho KWON[1], Young Ho KIM[1], Young Gyu PARK[1]
[1]Korea Institute of Ocean Science and Technology

OS03-D4-PM2-Nicoll 1-003 | OS03-A007

Simulation and Analysis of the Response of Arctic Ocean Plankton to Environmental Change
Xiaofan LUO[1#+], Wei ZHAO[1], Hao WEI[1], Yongli ZHANG[1], Yali WANG[1], Yu QIN[1], Timothee BOURGEOIS[2], Hongtao NIE[1], Xianmin HU[3], Youyu LU[3]
[1]Tianjin University, [2]Dalhousie University, [3]Bedford Institute of Oceanography

OS03-D4-PM2-Nicoll 1-004 | OS03-A009

A Numerical Study of the Impacts of Storm on Upper Ocean in the Western Arctic Ocean
Xuezhi BAI[1#+], Jie WANG[1]
[1]Hohai University

OS03-D4-PM2-Nicoll 1-005 | OS03-A002

The Growing Impact of Surface Waves on Arctic Sea Ice Ecosystems
Mark ORZECH[1#+]
[1]U.S. Naval Research Laboratory

OS03-D4-PM2-Nicoll 1-006 | OS03-A001

Ecosystem Response to Climate Changes in the Arctic Ocean
Meibing JIN[1,2#+], Jihai DONG[1]
[1]Nanjing University of Information Science & Technology, [2]University of Alaska Fairbanks

OS03-D4-PM2-Nicoll 1-007 | OS03-A006

Analysis on Determination of Melt-onset for Sea Ice in the Chukchi Sea
Yali WANG[1#+], Xiaofan LUO[1], Yu QIN[1], Yongli ZHANG[1], Hongtao NIE[1], Hao WEI[1]
[1]Tianjin University

OS03-D4-PM2-Nicoll 1-008 | OS03-A008

Extraction of Sea Ice in Arctic Based on HY-2A/B Satellite Altimeter Data
Chengfei JIANG[1,2+], Hao WEI[1], Mingsen LIN[2#], Youguang ZHANG[2], Yongjun JIA[2], Xiaofan LUO[1], Hongtao NIE[1]
[1]Tianjin University, [2]National Satellite Ocean Application Service

IG07 / Interdisciplinary Research on Water-related Disasters and Practical Applications for Disaster Risk Reduction

Thu - 01 Aug | MR300

Time 16:00-18:00
Chair(s) Natt LEELAWAT, *Chulalongkorn University*
Anawat SUPPASRI, *Tohoku University*

IG07-D4-PM2-300-001 | IG07-A005

Tsunami Disaster Mitigation in High Tourist Areas of Bali Indonesia
Sarah HALL[1#+], Ron HARRIS[2], Gilang SETIADI[3], Chad EMMETT[2], Amelia COPE[1]
[1]Utah Valley University, [2]Brigham Young University, [3]UPN Veteran Yogyakarta

IG07-D4-PM2-300-002 | IG07-A019

Application of Conformal Map Function to Improve Similarity of SIND Model
Dong Hyun KIM[1+], Hyung-Ju YOO[1], Hong-Teak KIM[1], Seung Oh LEE[1#]
[1]Hongik University

IG07-D4-PM2-300-003 | IG07-A021

Assessment of Urban Resilience to Flood Using PSR Framework and System Dynamics
Jing HUANG[1#+], Xiaomei YUAN[1], Huimin WANG[1]
[1]Hohai University

IG07-D4-PM2-300-004 | IG07-A025

Modelling Climate Change Impacts to Farmers in the Restructured Weather Based Crop Insurance Scheme (RWBCIS) in India
Iain WILLIS[1], Muhammad RAHIZ[1#+]
[1]JBA Risk Management Pte Ltd

IG07-D4-PM2-300-005 | IG07-A026

Toward Understanding 1.5°C Global Warming Impacts on Temperature and Precipitation Extremes at Different Timings: Before and After Overshooting
Yanyu LU[1#+]
[1]Anhui Climate Center

SS02 / The Brewer-Dobson and Hadley Circulations in a Changing Climate: Evolution and Impacts

Thu - 01 Aug | MR309

Time 16:00-18:00
Chair(s) Shigeo YODEN, *Kyoto University*
Richard ECKMAN, *National Aeronautics and Space Administration*

SS02-D4-PM2-309-001 | SS02-A006 (Invited)

Widening and Weakening of the Hadley Circulation Under Global Warming
Yongyun HU[1#+]
[1]Peking University

SS02-D4-PM2-309-002 | SS02-A002 (Invited)

Tightening of Tropical Ascent and the Implications for Global and Regional Hydrological Cycle
Hui SU[1#+], Jonathan JIANG[1], Chengxing ZHAI[1], Longtao WU[1], J. David NEELIN[2], Yuk YUNG[3]
[1]Jet Propulsion Laboratory, California Institute of Technology, [2]University of California, Los Angeles, [3]California Institute of Technology

SS02-D4-PM2-309-003 | SS02-A005 (Invited)

Improved Estimates of Recent Tropical Expansion and the Role of Natural Variability Versus Forced Change
Sean DAVIS[1#+]
[1]NOAA Earth System Research Laboratory

SS02-D4-PM2-309-004 | SS02-A001 (Invited)

Past and Future Brewer-Dobson Circulation Changes and the Main Drivers
Lei WANG[1#+], Lorenzo POLVANI[2], Marta ABALOS[3]
[1]Fudan University, [2]Columbia University, [3]Universidad Complutense de Madrid

SS02-D4-PM2-309-005 | SS02-A003 (Invited)

Brewer-Dobson Circulation Diagnosed From Reanalysis Datasets
Chiaki KOBAYASHI[1#+], Toshiki IWASAKI[2]
[1]Meteorological Research Institute, [2]Tohoku University

AS14 / The Science and Prediction of Tropical Cyclones

Thu - 01 Aug | Nicoll 3

Time 16:00-18:00
Chair(s) M.K.(Peter) YAU, *McGill University*
Yoshiaki MIYAMOTO, *Keio University*

AS14-D4-PM2-Nicoll 3-001 | AS14-A045 (Invited)

A Mechanism for the Dissipation of the Inner Eyewall During the Eyewall Replacement Cycle of Tropical Cyclones
M.K.(Peter) YAU[1#+]
[1]McGill University

AS14-D4-PM2-Nicoll 3-002 | AS14-A014 (Invited)

Does Strong Vertical Wind Shear Certainly Lead to Weakening of Tropical Cyclone?
Kelvin T. F. CHAN[1#+]
[1]Sun Yat-sen University

AS14-D4-PM2-Nicoll 3-003 | AS14-A006 (Invited)

Large-Eddy Simulation of Extreme Updrafts in the Tropical Cyclone Inner Core
Liguang WU[1#+]
[1]Fudan University

AS14-D4-PM2-Nicoll 3-004 | AS14-A016 (Invited)

A Dynamical Mechanism for Secondary Eyewall Formation in Tropical Cyclones
Yoshiaki MIYAMOTO[1#+]
[1]Keio University

AS14-D4-PM2-Nicoll 3-005 | AS14-A030

The Role of WISHE in the Rapid Intensification of Tropical Cyclones

Chieh-Jen CHENG[1+], Chun-Chieh WU[1#]

[1]*National Taiwan University*

AS14-D4-PM2-Nicoll 3-006 | AS14-A038

Dynamic Efficiency of Latent Heat Release and the Rapid Intensification of Supertyphoon Haiyan (2013)

Hung-Chi KUO[1+], Satoki TSUJINO[1#], Chien-Chang HUANG[1], Chung-Chieh WANG[2], Kazuhisa TSUBOKI[3]

[1]*National Taiwan University,* [2]*National Taiwan Normal University,* [3]*Nagoya University*

AS14-D4-PM2-Nicoll 3-007 | AS14-A032

Intensity Change of Tropical Cyclones Embedded in Moderate-sheared Environment: The Role of the Low-level Flow Direction

Tsung-Yung LEE[1+], Chun-Chieh WU[1#]

[1]*National Taiwan University*

AS14-D4-PM2-Nicoll 3-008 | AS14-A031

The Role of Deep Convective Cells in Extreme Rapid Intensification

Jae-Deok LEE[1+], Chun-Chieh WU[1#]

[1]*National Taiwan University*

OS Poster Presentations

Thu - 01 Aug, 13:30 - 15:30 | EXHIBITION HALL

OS01-D4-PM1-P-001 | OS01-A008

The Mineralogical Evidence of the Existence of Two Mass Sources Along a Traverse Route from Zhongshan Station to Dome A, Antarctica

Liya ZHOU[1#+]

[1]Nanjing University

OS01-D4-PM1-P-002 | OS01-A015

The Baroclinic Energy Conversion Associated with the High-latitude Eurasian Teleconnection Pattern During Summer

Xinyu LI[1#+], Riyu LU[2], Richard GREATBATCH[3], Gen LI[1]

[1]Hohai University, [2]Chinese Academy of Sciences, [3]GEOMAR Helmholtz Centre for Ocean Research Kiel

OS02-D4-PM1-P-003 | OS02-A004

Common Model Biases Reduce CMIP5's Ability to Simulate the Recent Pacific La Niña-like Cooling

Jing-Jia LUO[1#+], Gang WANG[2], Dietmar DOMMENGET[2]

[1]Nanjing University of Information Science & Technology, [2]Monash University

OS02-D4-PM1-P-005 | OS02-A010

New ENSO Monitoring System: Accounting For Climate Change

Thea TURKINGTON[1#+], Raizan RAHMAT[1], Bertrand TIMBAL[2]

[1]Centre for Climate Research Singapore, [2]National Environment Agency

OS02-D4-PM1-P-006 | OS02-A011

Monsoon Climate Variability over South and East Asia: A Review

Ramesh KRIPALANI[1,2#+]

[1]Indian Institute of Tropical Meteorology, [2]Pukyong National University

OS02-D4-PM1-P-007 | OS02-A013

Decadal Sea Level Shift in the Tropical Pacific and its Linkage with the Recent Resumption of Global Ocean Warming

Sang-Chul CHA[1+], Jae-Hong MOON[1#], Yuhe Tony SONG[2]

[1]Jeju National University, [2]Jet Propulsion Laboratory, California Institute of Technology

OS02-D4-PM1-P-008 | OS02-A015

Bias of Dynamic Sea Level Simulated by CMIP5 Models in the Tropical Pacific Ocean

Meixiang CHEN[1#+], Shuyi XIE[1]

[1]Hohai University

OS02-D4-PM1-P-009 | OS02-A020

Human Contribution to the Observed Increases in SST Threshold for Tropical Convection

In-Hong PARK[1#+], Seung-Ki MIN[1]

[1]Pohang University of Science and Technology

OS02-D4-PM1-P-010 | OS02-A025

Interannual and Interdecadal Variations of Subtropical Eastern North Pacific SST

Yi-Kai WU[1#+], Chi-Cherng HONG[2], Cheng-Ta CHEN[1]

[1]National Taiwan Normal University, [2]University of Taipei

OS02-D4-PM1-P-011 | OS02-A027

Projecting ENSO Amplitude Change Under Global Warming

Lin CHEN[1#+]

[1]Nanjing University of Information Science & Technology

OS02-D4-PM1-P-012 | OS02-A028

Seasonal Rainfall Predictability of the Arabian Winter Monsoon Region

Muhammad Adnan ABID[1#+], Fred KUCHARSKI[1], Mansour ALMAZROUI[2], In-Sik KANG[3]

[1]International Centre for Theoretical Physics, [2]King Abdulaziz University, [3]Second Institute of Oceanography

OS03-D4-PM1-P-015 | OS03-A003

Sea Level Variation in the Arctic Ocean in the Period 1979-2016

Kai XIAO[1#+], Meixiang CHEN[1], Xuezhu WANG[2], Qiang WANG[2], Wenhao ZHANG[2], Shuyi XIE[1]

[1]Hohai University, [2]Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research

OS03-D4-PM1-P-016 | OS03-A004

Critical Mechanisms for the Abnormal Event of Sea Ice Distribution in Pacific Sector of the Arctic During the Summer of 1998

Yongli ZHANG[1#+], Hao WEI[1], Hongtao NIE[1], Xiaofan LUO[1], Yali WANG[1], Yu QIN[1], Chunming DONG[1], Xianmin HU[2], Youyu LU[2]

[1]Tianjin University, [2]Bedford Institute of Oceanography

OS03-D4-PM1-P-017 | OS03-A005

Analysis on the Simulated Pathway of Pacific Summer Water in the Arctic Ocean

Yu QIN[1#+], Xiaofan LUO[1], Yali WANG[1], Yongli ZHANG[1], Chunming DONG[1], Hongtao NIE[1], Hao WEI[1]

[1]Tianjin University

OS03-D4-PM1-P-018 | OS03-A010

Transport of the Alaska Coastal Water over the Chukchi Borderland in the Summer of 2018

Hengling LENG[1#+], Xuezhi BAI[1]

[1]Hohai University

OS03-D4-PM1-P-019 | OS03-A011

Changes in Water Mass Characteristics and Vertical Thermohaline Structure in the Eastern Chukchi Sea During Summer, 1974-2017

Yayu YANG[1#+], Xuezhi BAI[1]

[1]Hohai University

OS04-D4-PM1-P-020 | OS04-A010

Cyclonic Intensity Study Using Sea Level Pressure Estimations from SCATSAT-1 Winds over Bay of Bengal During 2018

Purna CHAND[1], Arjun SURESH[1#], Nivedita SINGH[2+], Deepa NATHALIA[3], S. V. Kasi VISWANATH[4], Neha SINGH[1]

[1]Amity University, [2]Mewar Institute, [3]Panjab University, [4]Andhra Pradesh State Disaster Management Authority

OS04-D4-PM1-P-021 | OS04-A012

Investigation of Cloud Microphysics, Precipitation and Three Dimensional Structure of Winds of Cyclone "Ockhi": Results from Space Borne Observations and Reanalysis

Arun NAIR[1#+], Vijay KANAWADE[1], Siddarth Shankar DAS[2], Abin THOMAS[1]

[1]University of Hyderabad, [2]Vikram Sarabhai Space Centre

OS05-D4-PM1-P-022 | OS05-A003

Dynamic Mechanism for Resuspension of Microphytobenthos and Cohesive Sediment in Intertidal Flat, Southwestern Korea

Ho Kyung HA[1#+], Jong Seong KHIM[2], Hun Jun HA[1], Hosang KIM[2], Jungsung NOH[2]

[1]Inha University, [2]Seoul National University

OS05-D4-PM1-P-023 | OS05-A005

Environmental Change During the Holocene Traced by Ostracoda Occurrence in the Southern Part of Nakdong River Delta, Southeastern Korea Peninsula

Daekyo CHEONG[1#+], Bokhye KIM[1]

[1]Kangwon National University

OS05-D4-PM1-P-025 | OS05-A007

Monitoring of Coastal Shape Change Due to Man-made Construction in Wolchun Beach

Dongseob SONG[1#+]

[1]Kangwon National University

OS05-D4-PM1-P-026 | OS05-A009

Spatial Difference in Sedimentary Facies and Processes in the Tidal Flat Around the Imjado, Southwestern Coast of Korea

Hyunho YOON[1#+], Seungsoo CHUN[2], Gwangsoo LEE[1]

[1]Korea Institute of Geoscience and Mineral Resources, [2]Chonnam National University

OS05-D4-PM1-P-028 | OS05-A016

An Analysis of Upwelling Trend Along the Indian Coast Using Satellite Data

Manisha VITHALPURA[1#+], Shailee PATEL[2], Smitha RATHEESH[3]

[1]ISHLS, Indus University, [2]Indus University, [3]Space Applications Centre

OS07-D4-PM1-P-029 | OS07-A002

Meridional Oscillation in Genesis Location of Tropical Cyclones in the Postmonsoon Bay of Bengal

Kaigui FAN[1+], Xidong WANG[1#], Gregory FOLTZ[2], Karthik BALAGURU[3]

[1]Hohai University, [2]NOAA Atlantic Oceanographic and Meteorological Laboratory, [3]Pacific Northwest National Laboratory

OS07-D4-PM1-P-030 | OS07-A003

Does Atmosphere-ocean Coupling Have an Effect on the Prediction of 2016 Western North Pacific Tropical Cyclones?

Xiangbo FENG[1#+], Nicholas KLINGAMAN[1], Kevin HODGES[1]

[1]University of Reading

OS07-D4-PM1-P-033 | OS07-A014

The Impact of Sea Surface Temperature on Zonal Movement of Western Pacific Subtropical High in Boreal Summer

Hong LI[1+], Fanghua XU[1#]

[1]Tsinghua University

OS07-D4-PM1-P-034 | OS07-A015

Experiments on Characteristics of Wind Waves Generation Under Stable-unstable Stratification

Kenta MASUDA[1+], Toshinori OGASAWARA[1#]

[1]Iwate University

OS08-D4-PM1-P-035 | OS08-A006

Increasing Hypoxia in the Changjiang Estuary During the Last Three Decades Deciphered from Sedimentary Redox-sensitive Elements

Daidu FAN[1#+], Yijing WU[1]

[1]Tongji University

OS08-D4-PM1-P-036 | OS08-A009

Recent Morphological Changes in the Southern Red River Delta (Viet Nam) and its Linkage with Human Activities

Nguyen DAC VE[1+], Daidu FAN[1#], Bui VAN VUONG[2], Tran Dinh LAN[2], Vu DUY VINH[2]

[1]Tongji University, [2]Institute of Marine Environment and Resources

OS08-D4-PM1-P-037 | OS08-A018

HF Radar Observed Surface Currents and Waves Off Shandong Peninsula, China

Yuping YANG[1+], Chenghao WANG[2], Libo ZHANG[1], Jingping XU[1#]

[1]Southern University of Science and Technology, [2]Ocean University of China

OS08-D4-PM1-P-038 | OS08-A020

Change in Hydrodynamics and its Feedback to Morphologic Evolution of the Huanghe (Yellow River) Delta

Meng LIU[1+], Naishuang BI[2#], Xiao WU[2], Jingping XU[1]

[1]Southern University of Science and Technology, [2]Ocean University of China

OS09-D4-PM1-P-039 | OS09-A001

Influence of Sequential Typhoons on Phytoplankton Blooms in the Northwestern South China Sea

Tongyu WANG[1+], Shuwen ZHANG[1#], Qiang LI[1]

[1]Guangdong Ocean University

OS09-D4-PM1-P-040 | OS09-A005

Decadal Phytoplankton Biomass Fluctuation in the Western North Pacific Subtropical Gyre

Wee CHEAH[1#+], Chun Hoe CHOW[2], Jen-Hua TAI[3]

[1]University of Malaya, [2]National Taiwan Ocean University, [3]Academia Sinica

OS10-D4-PM1-P-041 | OS10-A004

Effect of Salinity on Synechococcus Community Structure in the Coastal Area

Sze Ki LEUNG[1+], Hongbin LIU[1#], Xiaomin XIA[2]

[1]The Hong Kong University of Science and Technology, [2]Chinese Academy of Sciences

OS10-D4-PM1-P-042 | OS10-A006

Patterning Multitrophic Community and Trophic Structure in a Temperate, Low-turbidity Estuarine Bay of Korea

Hee Yoon KANG[1#+], Young-Jae LEE[1], Sung-Gyu YUN[2], Changseong KIM[1], Hyun Je PARK[3], Young Kyun KIM[1], Yoonja KANG[1], Goutam Kumar KUNDU[1], Dongyoung KIM[1], Jaebin JANG[1], Chang-Ho MOON[4], Chang-Keun KANG[1]

[1]Gwangju Institute of Science and Technology, [2]Daegu University, [3]Gangneung-Wonju National University, [4]Pukyung National University

OS10-D4-PM1-P-043 | OS10-A009

Isotopic Variation of Macroinvertebrates and Their Sources of Organic Matter Along an Estuarine Gradient

Changseong KIM[1#+], Hee Yoon KANG[1], Young-Jae LEE[1], Sung-Gyu YUN[2], Chang-Keun KANG[1]

[1]Gwangju Institute of Science and Technology, [2]Daegu University

OS10-D4-PM1-P-044 | OS10-A013

Ecosystem Foodweb Analysis of Gwangyang Bay, Korea, Using a Trophic Flow Model Coupled with Stable Isotope Analysis

Yun-Ho KANG[1#], Chang-Keun KANG[1], Dongyoung KIM[1], Jin Hee WI[1], Young Kyun KIM[1], Yoonja KANG[1], Kwanghun LEE[1+]

[1]Gwangju Institute of Science and Technology

OS11-D4-PM1-P-045 | OS11-A003

Role of Atmospheric Nutrient Pollution in Stimulating Phytoplankton Growth in Small Area and Shallow Depth Water Bodies: Arabian Gulf and the Sea of Oman

Ashraf FARAHAT[1#+], Abdelgadir ABUELGASIM[2]

[1]King Fahd University of Petroleum and Minerals, [2]United Arab Emirates University

OS11-D4-PM1-P-046 | OS11-A005

Poleward Shift of the Pacific North Equatorial Current Bifurcation

Haihong GUO[1+], Zhaohui CHEN[1,2#], Haiyuan YANG[1]

[1]Ocean University of China, [2]Qingdao National Laboratory for Marine Science and Technology

OS11-D4-PM1-P-047 | OS11-A006

Decadal Variability of Eddy Characteristics and Energetics in the Kuroshio Extension: Unstable Versus Stable States

Haiyuan YANG[1#+], Bo QIU[2], Ping CHANG[3], Zhaohui CHEN[1,4], Lixin WU[1]

[1]Ocean University of China, [2]University of Hawaii, [3]Texas A&M University, [4]Qingdao National Laboratory for Marine Science and Technology

OS11-D4-PM1-P-048 | OS11-A007

Tropical Meridional Overturning Circulation Observed by Subsurface Moorings in the Western Pacific

Lina SONG[1#+]

[1]Chinese Academy of Sciences

OS11-D4-PM1-P-049 | OS11-A010

Subseasonal Variations of the ENSO-related Maritime Continent Rainfall Anomalies During the Northern Winter and the Role of the Indian Ocean

Zizhen DONG[1+], Lin WANG[1#]

[1]Chinese Academy of Sciences

OS11-D4-PM1-P-050 | OS11-A012

Contrasting Intraseasonal Variations of the Equatorial Pacific Ocean Between the 1997-1998 and 2015-2016 El Niño Events

Yilong LYU[1+], Yuanlong LI[2], Xiaohui TANG[2#], Fan WANG[2], Jianing WANG[2]

[1]Institute of Oceanology, Chinese Academy of Sciences, [2]Chinese Academy of Sciences

OS11-D4-PM1-P-052 | OS11-A027

Annual Versus Semi-annual Eddy Kinetic Energy Variability in the Celebes Sea

Chengcheng YANG[1+], Xiao CHEN[1#], Xuhua CHENG[1]

[1]Hohai University

OS11-D4-PM1-P-053 | OS11-A028

Interannual Variability of the Spring Wyrtki Jet

Deng KANGPING[1+], Xuhua CHENG[1#]

[1]Hohai University

OS11-D4-PM1-P-054 | OS11-A032

Ocean Circulation Plays a Crucial Role in Governing the Subsurface Thermal Variability in the Northwestern Tropical Pacific Ocean

Yi-Chia HSIN[1#+], Tzu-Ling CHIANG[2], Chau-Ron WU[2]

[1]Academia Sinica, [2]National Taiwan Normal University

OS12-D4-PM1-P-055 | OS12-A002

Topographic Changes of the Daehang-ri Intertidal Flat Induced by Anthropogenic Activities of the Saemangeum Dike Construction, the West Coast of Korea

Tae-Jin CHOI[1#+], Jin-Yong CHOI[1], Chansung OH[2], Yong-Jin YANG[2], Eui-Young JEONG[3], Jung-Hoon CHOI[2]

[1]Kunsan National University, [2]Korea Rural Community Corporation, [3]Korea Institute of Ocean Science and Technology

OS12-D4-PM1-P-057 | OS12-A004

Relative Sea Level Changes in Southeast Asia During the Common Era

Timothy SHAW[1#+], Nicole KHAN[1], Adam SWITZER[1], Daniel A. FRIESS[2], Benjamin HORTON[1,3]

[1]Nanyang Technological University, [2]National University of Singapore, [3]Rutgers University

OS12-D4-PM1-P-058 | OS12-A005

Coastline Recession on Small Remote Islands. A Case Study, Tanna Island, Vanuatu

Serena LEE[1#+], Gaelle FAIVRE[1], Charles LEMCKERT[1,2], Rodger TOMLINSON[1]

[1]Griffith University, [2]University of Canberra

OS12-D4-PM1-P-059 | OS12-A007

Experimental Study on Verification of the Wave Attenuating Effect of a Pneumatic Breakwater According to Installation Conditions

Sung-Chul JANG[1#+], Min-Su KIM[1], Junghyun PARK[2], Han-sam YOON[1]

[1]Pukyong National University, [2]Korea Institute of Science and Technology Information

OS12-D4-PM1-P-060 | OS12-A011

Contribution of Surface Cooling Due to Mixing with Yellow Sea Bottom Water to Weather Conditions Around the Korean Peninsula

Subin KIM[1#+], Jae-Hong MOON[1]

[1]Jeju National University

OS13-D4-PM1-P-061 | OS13-A004

Enhanced Sulfate Reduction and Carbon Sequestration in Sediments Underlying the Core of the Arabian Sea Oxygen Minimum Zone

Svetlana FERNANDES[1#+], Aninda MAZUMDAR[1], Wriddhiman GHOSH[2]

[1]CSIR-National Institute of Oceanography, [2]Bose Institute

OS13-D4-PM1-P-062 | OS13-A009

A Modeling Study on Origin of Jellyfish in the Waters Nearby Hongyanhe Nuclear Power Plant in the East Liaodong Bay, Bohai Sea (China)

Xue SUN[1], Hao WEI[1], Haiyan ZHANG[1#+], Hongtao NIE[1]

[1]Tianjin University

OS14-D4-PM1-P-063 | OS14-A001

Application of Infrared Spectroscopy in Microplastic Pollution Research

Ranjani M[1#+], Veerasingam S[2], Venkatachalapathy RAMADOSS[1], Mugilarasan M[1]

[1]Annamalai University, [2]CSIR-National Institute of Oceanography

OS14-D4-PM1-P-064 | OS14-A005

Microplastic Pollution in a Heavily Urbanized Coastal Area: A Baseline Survey of Sevastopol Bay (The Black Sea)

Andrei BAGAEV[1#+], Vladimir MUKHANOV[2], Daria LITVINYUK[2], Evgenii SAKHON[2]

[1]Marine Hydrophysical Institute of the Russian Academy of Sciences, [2]A.O. Kovalevsky Institute of Marine Biological Research

OS15-D4-PM1-P-065 | OS15-A001

Seasonal and Spatial Variations of the M2 Internal Tide in the Yellow Sea

Kun LIU[1#+]

[1]Qingdao National Laboratory for Marine Science and Technology Development Centre

OS15-D4-PM1-P-066 | OS15-A007

Tidal Hydrodynamics of Gulf of Khambhat, West Coast of India – A Numerical Approach

Aditi MITRA[1#+], Sanil KUMAR[1]

[1]National Institute of Oceanography

OS15-D4-PM1-P-067 | OS15-A008

Impact of Wave Induced Turbulent Kinetic Energy on Tropical Cyclone in Regional Atmosphere-ocean-wave Coupled Model

Masashi TAKAGI[1#+], Nobuhito MORI[1], Junichi NINOMIYA[2]

[1]Kyoto University, [2]Kanazawa University

OS15-D4-PM1-P-068 | OS15-A009

How Does Wave Directional Distribution Affect the Likelihood of Rogue Waves?

Mark ORZECH[1#+], Jie YU[1]

[1]U.S. Naval Research Laboratory

OS15-D4-PM1-P-069 | OS15-A013

Regional Scale Seawater CO2 System Modeling in Coral Triangle Area: Preliminary Results

Faisal AMRI[1,2#+], Takashi NAKAMURA[1], Lawrence Patrick Cases BERNARDO[1], Kazuo NADAOKA[1]

[1]Tokyo Institute of Technology, [2]Institut Teknologi Bandung

OS15-D4-PM1-P-071 | OS15-A018

Analysis on the Spatial and Temporal Sensitivities of Key Parameters in Swan Model: An Example for Chan-hom Typhoon Waves in the East China Sea

Yao XU[1+], Jicai ZHANG[2#], Yun XU[2], Wangmin YING[2], Yaping WANG[1], Zhumei CHE[3], Ye ZHU[3]

[1]Nanjing University, [2]Zhejiang University, [3]The Ocean and Fisheries Bureau

OS15-D4-PM1-P-072 | OS15-A019

Numerical Modeling of Storm Tides over the Maritime Continent

Bijoy THOMPSON[1#+], Pavel TKALICH[1], Jianyu LIU[2], Xiangming SUN[2], Claudio SANCHEZ[3], Xiang-Yu HUANG[2]

[1]National University of Singapore, [2]Centre for Climate Research Singapore, [3]UK Met Office

OS15-D4-PM1-P-073 | OS15-A020

Impacts of Relative Vorticity on Critical Latitude Effects on Internal Tides, Waves, and Mixing

Tianyu ZHOU[1#+], Zhibo SHAO[1], Weihong LIN[1], Jiarui CHEN[1], Muzhi ZHOU[1], Paul HARTLIPP[2], Robin ROBERTSON[1]

[1]Xiamen University Malaysia, [2]University of New South Wales

OS15-D4-PM1-P-074 | OS15-A022

Online Isolation of Near-inertial Internal Waves in Ocean General Circulation Models

Zhuo SONG[1#+], Zhao JING[1], Lixin WU[1]

[1]Ocean University of China

OS15-D4-PM1-P-075 | OS15-A029

North Pacific Ocean Storm Track Responses to Oceanic Eddies in the Kuroshio Extension Region

Jin-Lin JI[1+], Changming DONG[2,3#], Dake CHEN[4]

[1]Xiamen University, [2]Nanjing University of Information Science & Technology, [3]University of California, Los Angeles, [4]State Oceanic Administration

OS15-D4-PM1-P-076 | OS15-A030

In-situ Measurements of Bottom Boundary Layer in Mariana Trench

Qian LIU[1#+], Haiqin DUAN[2], Zhiwen WANG[2], Meng LIU[1], Jingping XU[1]

[1]Southern University of Science and Technology, [2]Ocean University of China

OS15-D4-PM1-P-077 | OS15-A033

Submesoscale Eddies in the East China Sea Revealed from SAR Images

Ji YUXIANG[1#+], Guangjun XU[2], Changming DONG[1,3]

[1]Nanjing University of Information Science & Technology, [2]Guangdong Ocean University, [3]University of California, Los Angeles

OS15-D4-PM1-P-078 | OS15-A036

Numerical Study of Long-term Variation of Salt-water Intrusion in Yangtze River Estuary

Haiyun SHI[1#+], Changming DONG[1,2], Chunhui LI[1]

[1]Nanjing University of Information Science & Technology, [2]University of California, Los Angeles

OS16-D4-PM1-P-080 | OS16-A001

Educational Ocean Salinity Monitoring Activities in the High School and Constructing Applicational Model

Ryo NAKAMURA[1#+]

[1]Miyagi Rifu High School

OS16-D4-PM1-P-081 | OS16-A002

Seasonal-to-interannual Variability of Upper-layer Vertical Stratification in the Tropical Pacific

Xuhua CHENG[1#], Wei DUAN[1+]

[1]Hohai University

OS16-D4-PM1-P-083 | OS16-A004

Micronesia's Climate History Unlocked by Coral Porites: Refining Sr/Ca and Stable Oxygen Isotope Calibrations from the Western Pacific Warm Pool

Ahmad Taufiq MOHAMED MOHTAR[1#+], Nathalie GOODKIN[1,2], Konrad HUGHEN[3], Iulia M. STREANGA[4]

[1]Nanyang Technological University, [2]American Museum of Natural History, [3]Woods Hole Oceanographic Institution, [4]University of Edinburgh

OS17-D4-PM1-P-085 | OS17-A001

Trend Analysis of Global Ocean Surface Wave as Represented in the ERA-Interim for 1979-2010

Lingli WU[1#+]

[1]Hohai University

OS17-D4-PM1-P-086 | OS17-A002

Reconstruction of Three-dimensional Ocean Structure from Sea Surface Data: An Application of isQG Method to Southwest Indian Ocean

Zhiqiang CHEN[1+], Xidong WANG[1#]

[1]Hohai University

OS17-D4-PM1-P-088 | OS17-A016

Improved Multichannel Singular Spectrum Analysis to the Monthly Gravity Field Solutions from GRACE Data

Fengwei WANG[1+], Yunzhong SHEN[1#], Qiujie CHEN[1], Weiwei LI[2]

[1]Tongji University, [2]Shandong University of Science and Technology

OS17-D4-PM1-P-089 | OS17-A018

Adaptive Image Assimilation for Velocity Inversion
Long LI[1,2#+], Arthur VIDARD[2], Francois LE DIMET[2], Jianwei MA[3]
[1]Lab. Jean Kuntzmann, Grenoble Alpes University, [2]Universite Grenoble Alpes, [3]Harbin Institute of Technology

OS18-D4-PM1-P-090 | OS18-A001

Chemical Properties of Tsunami Deposits Caused by the Great East Japan Earthquake
Yoshishige KAWABE[1#+], Junko HARA[1]
[1]National Institute of Advanced Industrial Science and Technology

OS18-D4-PM1-P-091 | OS18-A013

Simulations of the Upper-ocean Response to Hurricane Frances
Peida HAN[1+], Xiping YU[1#]
[1]Tsinghua University

OS18-D4-PM1-P-092 | OS18-A018

High-resolution Tsunami Modeling at Patong Beach, Phuket, Thailand
Kittichote VEERANUNTAWET[1#+], Passakorn PANANONT[2], Kevin P. FURLONG[1]
[1]Penn State University, [2]Kasetsart University

OS18-D4-PM1-P-093 | OS18-A025

Revised Earthquake Sources Along Manila Trench for Tsunami Hazard Assessment in the South China Sea
Linlin LI[1#+], Qiang QIU[2], Ya-Ju HSU[3], Yu WANG[4,5], Chung-Han CHAN[5], Adam SWITZER[5]
[1]National University of Singapore, [2]University of Southern California, [3]Academia Sinica, [4]National Taiwan University, [5]Nanyang Technological University

OS18-D4-PM1-P-094 | OS18-A027

Fundamental Study to Estimate Tsunami Force Acting on Bridge Girders Based on Moving Particle Semi-implicit Method
Yoshihisa MARUYAMA[1#+], Toshiki KIKUCHI[1], Gaku SHOJI[2]
[1]Chiba University, [2]University of Tsukuba

OS18-D4-PM1-P-095 | OS18-A030

Hydraulic Experiment on Collision Force on a Building of Tsunami Bore Accompanied by an Automobile
Toshinori OGASAWARA[1#], Ryusei SATOH[1+]
[1]Iwate University

OS18-D4-PM1-P-096 | OS18-A031

Characteristics of Ocean Currents at Various Wind Speeds Based on Observations in Amitori Bay, Iriomote Island, Japan
Toshinori OGASAWARA[1#], Ayano ISHIKAWA[1+], Tomokazu MURAKAMI[2]
[1]Iwate University, [2]National Research Institute for Earth Science and Disaster Resilience

OS18-D4-PM1-P-099 | OS18-A036

Experimental Study on Force of a Tsunami Carrying Sediment
Koshu KISE[1#+], Taro ARIKAWA[1]
[1]Chuo University

OS18-D4-PM1-P-101 | OS18-A042

Transport Mechanism of Coastal Boulders in Ilocos Norte, Philippines Inferred from Coastal Geomorphology and Boulder Sedimentology
Edrian TUBALADO[1#+], Alec Benjamin RAMIREZ[1], Ace Matthew CANTILLEP[1], Kathrine MAXWELL[1], Noelynna RAMOS[1]
[1]University of the Philippines Diliman

OS18-D4-PM1-P-103 | OS18-A044

Experimental Study on Scour Behind Vertical Seawall Due to Tsunami Overflow
Kohei SUZUKI[1], Taro ARIKAWA[1#+]
[1]Chuo University

OS18-D4-PM1-P-104 | OS18-A049

Feasible Study for Predicting Tsunami Height by Using Oceanographic Radar Installed in Wakayama Prefecture
Shuji SETO[1#+], Tomoyuki TAKAHASHI[2], Hirofumi HINATA[3], Ryotaro FUJI[4], Fumihiko IMAMURA[1]
[1]Tohoku University, [2]Kansai University, [3]Ehime University, [4]Kokusai Kogyo Co., Ltd.

OS18-D4-PM1-P-105 | OS18-A050

Modelling of Tsunami Floating Bodies Acting on a Bridge Deck
Gaku SHOJI[1#+], Xiaojiao LIU[1]
[1]University of Tsukuba

OS18-D4-PM1-P-106 | OS18-A051

Seiche Effects in Lake Tekapo New Zealand in an Mw8.2 Alpine Fault Earthquake
Xiaoming WANG[1], Caroline HOLDEN[1], William POWER[1], Yaoru LIU[2#+], Joshu MOUNTJOY[3]
[1]GNS Science, [2]Tsinghua University, [3]National Institute of Water and Atmospheric Research

OS18-D4-PM1-P-107 | OS18-A054

Tsunami Risk Assessment Considering Tsunami Wave Correlation Using Copulas
Yo FUKUTANI[1#+]
[1]Kanto Gakuin University

OS18-D4-PM1-P-108 | OS18-A055

Characteristics of Beach Erosion in Headland Bays Due to Wave Action: Taking the Narrabeen Beach in Australia as an Example
Xi FENG[1#+]
[1]Hohai University

OS18-D4-PM1-P-109 | OS18-A058

The Destruction of a Cemented Rubble Mound Seawall by a Tsunami
Radianta TRIATMADJA[1#+], Nur YUWONO[1], Djoko LEGONO[1], Redha INABAH[1], David S.V.L. BANGGUNA[1], Kuswandi KUSWANDI[2], Warniyati SEIMAHUIRA[1]
[1]Universitas Gadjah Mada, [2]Institut Teknologi Medan

OS19-D4-PM1-P-111 | OS19-A001

Application of Convolutional Neural Network in Intelligent Classification of Sea Ice
Yanrong CUI[1#+], Bin ZOU[1], Lijian SHI[1], Huang LEI[1]
[1]National Satellite Ocean Application Service

OS19-D4-PM1-P-112 | OS19-A002

Polar Sea Ice Concentration Retrieval Based on Neural Networks
Sen LIU[1#+], Bin ZOU[1], Lijian SHI[1], Tao ZENG[1], Yanrong CUI[1]
[1]National Satellite Ocean Application Service

OS19-D4-PM1-P-113 | OS19-A003

Preliminary Conception of a Smart Ocean
Ting LIU[1+], Bin ZOU[1], Xiaobin YIN[2#], Lei ZHOU[2], Yongcun CHENG[2], Zhou WU[1], Lijian SHI[1]
[1]National Satellite Ocean Application Service, [2]Beijing PIESAT Information Technology Co., Ltd

OS19-D4-PM1-P-114 | OS19-A004

Convolutional Neural Network Classification of Coastal Wetland Combined with Hyperspectral Image and Lidar Data
Ma YI[1#], Bin ZOU[2+]
[1]Ministry of Natural Resources, [2]National Satellite Ocean Application Service

SE Poster Presentations

Thu - 01 Aug, 13:30 - 15:30 | EXHIBITION HALL

SE01-D4-PM1-P-115 | SE01-A001

New Paleomagnetic Results of Sedimentary and Basaltic Rocks from the South China Sea Basins
Xixi ZHAO[1#+], Qingsong LIU[2], Weiwei CHEN[1], Wei YUAN[1]
[1]Tongji University, [2]Southern University of Science and Technology

SE01-D4-PM1-P-116 | SE01-A002

Towards the Interpretation of Magnetic Lineations in Deformed Sedimentary Rocks (West Spitsbergen Fold-and-thrust Belt) Using Anisotropy of In-phase and Out-of-phase Magnetic Susceptibility and Partial Anhysteretic Remanence
Martin CHADIMA[1,2#+], Katarzyna DUDZISZ[3], Michael WACK[4], Stuart GILDER[4]
[1]Advanced Geoscience Instruments Company, [2]Czech Academy of Sciences, [3]Polish Academy of Sciences, [4]Ludwig Maximilians University

SE01-D4-PM1-P-117 | SE01-A010

Geomagnetic Excursions Between 2.1 and 2.9 Ma at IODP Site U1314 in the North Atlantic
Masao OHNO[1#+], Tatsuya HAYASHI[1]
[1]Kyushu University

SE01-D4-PM1-P-118 | SE01-A013

Paleoclimatic Evolution During the Last Glacial Maximum and Last Deglaciation in the Northern South China Sea: Evidence from Magnetic Investigation of Core Sediments
Mingkun LI[1#+], Tingping OUYANG[1], Zhaoyu ZHU[2], Andrew ROBERTS[3], David HESLOP[3], Xiang ZHAO[3], Chengjing TIAN[4], Shasha PENG[2], Hexian ZHONG[4], Xuechao PENG[4], Yan QIU[4]
[1]South China Normal University, [2]Chinese Academy of Sciences, [3]Australian National University, [4]Guangzhou Marine Geological Survey

SE01-D4-PM1-P-119 | SE01-A016

Timing of Initial Development of the Taiwan Orogen and its Evolution from Magnetobiostratigraphic Analysis of the Southern Taiwan Foreland Basin
Chorng-Shern HORNG[1#+], Andrew ROBERTS[2], Kai-Shuan SHEA[3]
[1]Academia Sinica, [2]Australian National University, [3]Ministry of Economic Affairs

SE01-D4-PM1-P-120 | SE01-A020

Kartochka Formation (Southwestern Siberian Platform) as a Promising Object for Studying the Geomagnetic Field During the Meso-Neo-Proterozoic Maya Supochron
Vladimir PAVLOV[1#+]
[1]Institute of Physics of the Earth of Russian Academy of Sciences

SE02-D4-PM1-P-122 | SE02-A003

Deformation Microstructures of Co-seismic Gouge from a Surface Rupture of the 2008 Wenchuan Earthquake
Jiaxiang DANG[1#+], Yongsheng ZHOU[1]
[1]China Earthquake Administration

SE02-D4-PM1-P-123 | SE02-A009

Crustal Anisotropy in the Shanxi Rift of China Inferred from Receiver Functions and its Tectonic Implication
Yan CAI[1#+]
[1]China Earthquake Administration

SE02-D4-PM1-P-124 | SE02-A010

The Holocene Activity and Slip-rate of the Weixi-Qiaohou Fault Zone in Northwestern Margin of the Sichuan-Yunnan Block
Zufeng CHANG[1#+]
[1]Yunnan Earthquake Agency

SE02-D4-PM1-P-125 | SE02-A012

History of Megathrust Earthquakes Along the Sagami Trough, Central Japan
Junki KOMORI[1#+], Ryosuke ANDO[1], Masanobu SHISHIKURA[2]
[1]The University of Tokyo, [2]National Institute of Advanced Industrial Science and Technology

SE02-D4-PM1-P-126 | SE02-A013

Estimation of Sedimentary Thickness in Tangshan Earthquake Region, China with Dense Seismic Array and Sp Converted Phase
Feng BAO[1#+], Zhiwei LI[2], Sidao NI[1]
[1]Chinese Academy of Sciences, [2]Institute of Geodesy and Geophysics, Chinese Academy of Sciences

SE02-D4-PM1-P-127 | SE02-A014

Quaternary Fault Analysis in the Middle Extension of the Yangsan Fault, SE Korea: Structural Characteristics and Paleoseismological Interpretations
Hee-Cheol KANG[1+], Youngseok SONG[1], Sangmin HA[1], Min-Cheol KIM[1], Moon SON[1#]
[1]Pusan National University

SE02-D4-PM1-P-128 | SE02-A015

The Seismicity and Fault Interactions Between the Anninghe-Zemuhe Fault and the Daliangshan Fault: Insights from a Numerical Modeling Study
Li YIN[1#+], Gang LUO[1]
[1]University of Chinese Academy of Sciences

SE02-D4-PM1-P-129 | SE02-A017

An Equivalent Body Force Approach to Implement Fault Slip in the Visco-elastic Lateral Heterogeneous Ellipsoidal Earth Model
Luyuan HUANG[1#+], Huihong CHENG[2], Yaolin SHI[2]
[1]China Earthquake Administration, [2]University of Chinese Academy of Sciences

SE02-D4-PM1-P-130 | SE02-A018

The November 2017 Mw 5.5 Pohang Earthquake in SE Korea: Geological Setting and Major Features of the Causative Fault and Surface Deformation
Min-Cheol KIM[1+], Seongjun LEE[1], Cheol Woo SONG[1], Sangmin HA[1], Moon SON[1#], Hee-Cheol KANG[1]
[1]Pusan National University

SE02-D4-PM1-P-131 | SE02-A019

Block Boundries of Uppercrust in the North-eastern Tibet from Pg-wave Velocity and Anisotropy Joint Tomography
Shunping PEI[1#+]
[1]*Institute of Tibetan Plateau Research, Chinese Academy of Sciences*

SE02-D4-PM1-P-132 | SE02-A020

Density Variation in the Crust Before Jiuzhaigou, Sichuan, Ms7.0 Earthquake of 2017
Jiapei WANG[1#+], Kai SUN[1], Zhongya LI[1]
[1]*China Earthquake Administration*

SE02-D4-PM1-P-134 | SE02-A025

Underground Structure Along the Kego Fault Zone, Northern Kyushu, Japan, Inferred from Dense Gravity Survey
Jun NISHIJIMA[1#+], Yasuhiro FUJIMITSU[1]
[1]*Kyushu University*

SE02-D4-PM1-P-135 | SE02-A026

Study on the Distributional and Morphological Characteristics of Quaternary Monogenetic Volcanoes in Jeju Island, Korea
Jeonghyun LEE[1#+], Sung-Hyo YUN[1,2]
[1]*Pusan National University,* [2]*The Jeju Volcanological Institute*

SE02-D4-PM1-P-136 | SE02-A027

Numerical Modeling on Influence of Giant Strike Slip Fault to Tectonic Deformation Pattern in Tibet Plateau
Lianwang CHEN[1#+]
[1]*China Earthquake Administration*

SE02-D4-PM1-P-137 | SE02-A028

InSAR Measurement of the Crustal Deformation over Permafrost and Periglacial Environment of Western Tibet
Yunhua LIU[1#+]
[1]*Institute of Geology, China Earthquake Administration*

SE02-D4-PM1-P-138 | SE02-A031 (Invited)

Petrogenesis and Geochemistry of Cenozoic Basaltic Rocks from Leiqiong Area, South China
Yung-Tan LEE[1,2#+], Pin-Chang CHOU[3]
[1]*Geological Society in Taipei,* [2]*Aletheia University,* [3]*National Taiwan Normal University*

SE02-D4-PM1-P-139 | SE02-A036

A Study of Water Quality Change Around Mt.Ontake After Eruption
Kazuki ASAMI[1#+], Koji KODERA[1]
[1]*Hosei University*

SE03-D4-PM1-P-140 | SE03-A003

Importance of Selecting Suitable Effective Friction Coefficient During the Calculation of Coulomb Failure Stress
Huihong CHENG[1#+], Tiantian DOU[1], Huai ZHANG[1], Yaolin SHI[1]
[1]*University of Chinese Academy of Sciences*

SE03-D4-PM1-P-141 | SE03-A006

Groundwater Level Changes of Maanshan Well Before and After the 2011 Tohoku 9.0 Earthquake
Fuqiong HUANG[1#+], Jun WANG[2], Jun ZHONG[1]
[1]*China Earthquake Administration,* [2]*Anhui Earthquake Administration*

SE03-D4-PM1-P-144 | SE03-A014

Numerical Simulations of Hydro-mechanical Coupling Effect on the Static Coulomb Stress Changes: Implications for Earthquake Triggering
Miao MIAO[1#], Shoubiao ZHU[2,3], Peng HAN[1], Ying CHANG[1+]
[1]*Southern University of Science and Technology,* [2]*China Earthquake Administration,* [3]*University of Chinese Academy of Sciences*

SE03-D4-PM1-P-145 | SE03-A015

Possible Anomalous Changes in Solar Quiet-daily Geomagnetic Variation Sq Related to the 2011 Off the Pacific Coast of Tohoku Earthquake (Mw 9.0)
Xiao-Can LIU[1#], Katsumi HATTORI[2], Peng HAN[3+], Huaran CHEN[1]
[1]*China Earthquake Administration,* [2]*Chiba University,* [3]*Southern University of Science and Technology*

SE03-D4-PM1-P-146 | SE03-A017

The Velocity Structure of the Eastern Bayan Har Block and the Jiuzhaigou Ms7.0 Earthquake
Wen YANG[1+], Xuemei ZHANG[1#], Jia CHENG[1], Mei LI[1], Fuqiong HUANG[1]
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SE05-D4-PM1-P-147 | SE05-A011

Oblique Convergence, Indentation and Pop-up Tectonics in Taiwan: Insights from Field Observations and Analog Models
Chia-Yu LU[1#+], Chih-Tung CHEN[2], Malavieille JACQUES[3]
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SE06-D4-PM1-P-148 | SE06-A005

Geology, Petrology and Tungsten Mineralization of the Seikphu Taung-Padatchuang Area, Pyinmana Township, Central Myanmar
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SE06-D4-PM1-P-149 | SE06-A009

Controversial on Coloration of Tanzanite After Heat Treatment
Teerarat PLUTHAMETWISUTE[1#+], Bhuwadol WANTHANACHAISAENG[2], Chatree SAIYASOMBAT[3], Chakkaphan SUTTHIRAT[1,4]
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SE06-D4-PM1-P-150 | SE06-A010

Mineral Inclusions in Sapphire from Basalt-related Deposits in Phan Thiet, Binh Thuan Province, Southern Vietnam
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SE06-D4-PM1-P-151 | SE06-A028

The Impurities Study of Three Kinds of Colored Jasper on Yogyakarta, Indonesia
Kemala WIJAYANTI[1#+], Mega Fatimah ROSANA[1], Euis TINTIN YUNINGSIH[1]
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SE06-D4-PM1-P-152 | SE06-A030

Geoelectrochemical Methodin in Searching for Concealed Copper Deposits in Jiangsan of Zhejiang
Xianrong LUO[1#+], Wen GAO[1], Fei OUYANG[1], Meilan WEN[1]
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SE07-D4-PM1-P-153 | SE07-A001

Seismological Evidence of Hales Discontinuity in Northeastern India

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SE07-D4-PM1-P-154 | SE07-A003

Frequency-dependent Anisotropy Inferred from Moho-converted Ps Splitting in the Eastern Margin of the Tibetan Plateau

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SE07-D4-PM1-P-155 | SE07-A005

Cenozoic Structure and Exhumation Mechanism of the Metamorphic Complexes in Southeast Tibet: Implication for Intraplate Deformation

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SE07-D4-PM1-P-156 | SE07-A007

Identifying the Unstable and Heterogeneous Anisotropic Layers Beneath Northeast Indian Lithosphere by Characterization of Null Measurements

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SE07-D4-PM1-P-157 | SE07-A008

Active Crustal Deformation in Southeastern Tibetan Plateau: The Kinematics and Dynamics

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SE08-D4-PM1-P-159 | SE08-A002

Electrical Conductivity of Talc at High Pressures and Temperatures

Libing WANG[1+], Duojun WANG[1#]

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SE08-D4-PM1-P-160 | SE08-A006

Research on Three-dimensional Magnetotelluric Axial Anisotropic Inversion

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SE08-D4-PM1-P-162 | SE08-A010

Zircon U-Pb Dating of the Middle Miocene Igneous Rocks in the Outer Zone of Southwest Japan and its Implication to the Tectonics of the Miocene Southwest Japan Margin

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SE08-D4-PM1-P-163 | SE08-A014

Slow-slip Detection Capability of the Tokai Strainmeter Network

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SE08-D4-PM1-P-164 | SE08-A015

Trillium Slim Borehole 120, a New Small-diameter High-performance Seismometer

Alastair FENWICK[1#+]

[1]Nanometrics Inc.

SE08-D4-PM1-P-165 | SE08-A016

New Very Low Power Broadband Seismic Digitizer for Dense Autonomous Research Arrays

Alastair FENWICK[1#+]

[1]Nanometrics Inc.

SE08-D4-PM1-P-166 | SE08-A019

Petrography and Geochemistry of Neogene Sandstones from Bojeador Formation and Batac Formation of Central Ilocos Sur, Philippines: Implications for Provenance and Tectonic Setting

Madeleine SANTOS[1#+], Lanze Allen MAGALONA[1], Bing Bong SALINAS[1], Carlo ARCILLA[1]

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SE09-D4-PM1-P-167 | SE09-A004

A Geostatistical Analysis Approach to Calibrate Models Predicting Spatial Distribution of Tephra Thickness

Maricar RABONZA[1#+], David LALLEMANT[1]

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SE09-D4-PM1-P-168 | SE09-A007

Combining Petrologic and Seismic Studies to Constrain Magma Storage Conditions Beneath Marapi Volcano, West Sumatra, Indonesia

Dini NURFIANI[1#+], Wang XIN[1], Kristianto KRISTIANTO[2], Hetty TRIASTUTY[2], Dannie HIDAYAT[1], Shengji WEI[1], Benoit TAISNE[1], Caroline BOUVET DE MAISONNEUVE[1]

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SE09-D4-PM1-P-169 | SE09-A016

Magma Evolution and Eruption Time of Ciremai Volcano: Insight from Mineralogical Composition and Crystal Size Distribution

Wildan HAMZAH[1#+], Idham Andri KURNIAWAN[1], Mirzam ABDURRACHMAN[1], Erza WINANTO[1]

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SE09-D4-PM1-P-170 | SE09-A019

Application of Remotely Piloted Aircrafts (RPAs) in Volcano Monitoring and Hazard Assessment

Robjunelieaaa LIM[1#+], Cathy POGAY[1], Marinel DEGONES[1], Ericson BARISO[1], Marie Thess QUILALANG[1], Danikko John RIVERA[1], Daniel Jose BUHAY[1], Bartolome BAUTISTA[1], Renato SOLIDUM[1]

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SE09-D4-PM1-P-171 | SE09-A020

Petrographic and Geochemical Correlation of the Volcanic Member of Bojeador Formation in Ilocos Region, Philippines

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SE10-D4-PM1-P-173 | SE10-A011

Distribution and Lateral Variations of ULVZ at the Boundary of African LLSVP

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SE10-D4-PM1-P-174 | SE10-A014

Multiple Geophysical Approaches to Investigating Structure and Properties of Earth Lithosphere: Three Central Europe Case Studies

Miroslav BIELIK[1#+], Ilya PRUTKIN[2], Peter VAJDA[3], Jaroslava PANISOVA[3], Barbora ŠIMONOVÁ[1], Jana DÉREROVÁ[3]

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SE11-D4-PM1-P-175 | SE11-A001

Geothermal State of the Songliao Basin Constrained by Surface Heat Flow and Curie Depth

Jian WANG[1#+], Chun-Feng LI[2]

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SE11-D4-PM1-P-177 | SE11-A010

Seismic Evidence on a Hidden Proterozoic Orogenic Belt Beneath Super Thick Sedimentary Cover, W Yangtze Block, China

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SE11-D4-PM1-P-178 | SE11-A011

Seismic Evidence of the Tectonic Affinity of the Yungbwa Ophiolitic Complex, Western Tibet

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SE11-D4-PM1-P-179 | SE11-A012 (Invited)

Imaging Crustal Deformation in the Northeastern Corner of Tibetan Plateau by a Dense Short-period Seismic Array

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SE12-D4-PM1-P-180 | SE12-A001

The Comprehensive Isoseismal Map of North China

Yuejun LYU[1#+]

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SE12-D4-PM1-P-181 | SE12-A002

Seismic Hazard Assessment for Middle-north Section of Xiaojiang Fault Zone Considering Geometrical Structures

Jingwei LIU[1#+], Yuejun LYU[1], Lifang ZHANG[1], Zhuojuan XIE[1]

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SE12-D4-PM1-P-182 | SE12-A004

Seismicity in Northeastern Tibetan Plateau: Insights from a Geodynamic Model

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SE12-D4-PM1-P-183 | SE12-A006

Relative Sea Level and Inferred Tectonic Uplift Recorded by Coral Microatolls in La Union, Philippines

Gina SARKAWI[1#+], Aron MELTZNER[1], Anandh GOPAL[1], Joanne LIM[1], Andrew MITCHELL[1], Loraine Faye SARMIENTO[2], Jennifer WEIL-ACCARDO[1], Kathrine MAXWELL[1,3], Junki KOMORI[4], Chuan-Chou SHEN[5], Shou-Yeh GONG[6], Ke LIN[1,5], Yanbin LU[1], Xianfeng WANG[1], Noelynna RAMOS[3]

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SE12-D4-PM1-P-184 | SE12-A007

Analysis of 1999 Chi-Chi Earthquake Aftershocks with ETAS Models

Yiwun LIAO[1#+], Jiancang ZHUANG[2], Ya-Ting LEE[1], Kuo-Fong MA[1]

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SE12-D4-PM1-P-185 | SE12-A008

Site-dependent Uniform Hazard Response Spectra for a Major Reservoir Project in Taiwan

Jia Cian GAO[1#+], Chyi Tyi LEE[1]

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SE12-D4-PM1-P-187 | SE12-A010

The Numerical Simulations on Multiple-segment Fault Rupture of the 1935 Hsinchu-Taichung, Taiwan, Earthquake

Ming-Hsuan YEN[1#+], Shiann-Jong LEE[2], Kuo-Fong MA[1], Ya-Ting LEE[1]

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SE12-D4-PM1-P-188 | SE12-A012

Evaluating the Tectonic Activity of the Vigan-Aggao Fault in Ilocos Norte, Philippines Using Morphometric Indices

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SE12-D4-PM1-P-189 | SE12-A016

Emergent Coral Reef Platforms in Bohol Island, Central Philippines: Records of Paleo-sea Level and Coseismic Uplift in the Late Quaternary

Noelynna RAMOS[1#], Kathrine MAXWELL[1+], J. Bruce H. SHYU[2], Hong-Wei CHIANG[2], Yu-Chen CHOU[2], Chuan-Chou SHEN[2]

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SE12-D4-PM1-P-191 | SE12-A018

Distribution and Morphological Patterns of Emergent Marine Terraces in Cebu Island, Philippines: Insights from Field Data and Digital Terrain Analysis

Noelynna RAMOS[1#+], Kathrine MAXWELL[1], Regina Martha LUMONGSOD[1], Raul Benjamin MENDOZA[1], Lyndon NAWANAO JR.[1], Carla DIMALANTA[1]

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SE12-D4-PM1-P-192 | SE12-A020

Study of Past Megathrust and Intraplate Earthquakes Using Sediment Records from Lakes Maninjau and Singkarak, West Sumatra

Katleen WILS[1#], Mudrik DARYONO[2], Nore PRAET[1], Sabine SCHMIDT[3], Januar RIDWAN[4,5], Purnama SUANDHI[6], Arianto SANTOSO[7], Aan DIANTO[7], Bambang SUWARGADI[7], Danny NATAWIDJAJA[7], Marc DE BATIST[1+]

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SE12-D4-PM1-P-193 | SE12-A022

Coseismic and Postseismic Deformation of the 2016 Meinong Earthquake, Southwestern Taiwan: Implication for Mud Diapiric Deformation

Jui-Chi LEE[1#+], Yu-Nung Nina LIN[1], Sylvain BARBOT[2], Kuo-Hsin TSENG[3], Chung-Pai CHANG[3]

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SE12-D4-PM1-P-194 | SE12-A027

Constraining Crustal Earthquake Source Parameters in Myanmar with Recently Deployed Broadband Seismic Network and an Updated 3D Velocity Model

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SE12-D4-PM1-P-195 | SE12-A029

The EOS-Myanmar Broadband Seismic Network: Installation, Site Classification, Local Seismicity Reports and Velocity Structure Studies

Phyo Maung MAUNG[1#+], Shengji WEI[1], Muzli MUZLI[1,2], Chen MENG[1], Wardah FADIL[1], Wang XIN[1], Paramesh BANERJEE[1], Dannie HIDAYAT[1], Oo THAN[3], Pa Pa TUN[3], Saw PYAE[4], Saw Myat MIN[4], Bor-Shouh HUANG[5]

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SE12-D4-PM1-P-196 | SE12-A031

Investigation of Earthquake Amplification and Seismic Vulnerability Across Lombok Island West Nusa Tenggara, Indonesia

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SE12-D4-PM1-P-198 | SE12-A037

Landform Development Processes of the Western Hengchun Tableland in Southern Taiwan Based on Uplifted Coastal Features

Sze-Chieh LIU[1#+], J. Bruce H. SHYU[1], Yuan-Lu TSAI[1], Chuan-Chou SHEN[1]

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SE13-D4-PM1-P-200 | SE13-A003

Assessing Landslide Susceptibility in the Zengwen Reservoir Watershed Using Climate Change Projection Data

Fang-Yi CHU[1#+], Chi-Wen CHEN[1], Tingyeh WU[1], Jun-Jih LIOU[1]

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SE13-D4-PM1-P-201 | SE13-A007

A New Algorithm for Mapping Complete SAR Geometric Distortion Based on Open Source DEM

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SE13-D4-PM1-P-202 | SE13-A008

Deformation Features of Anti-dip Slopes Considering the Scale Effect

Wen-Chao HUANG[1#+], Yu-Yi CHANG[1], Jia-Hao HU[1], Po-Yen CHAO[1]

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SE13-D4-PM1-P-203 | SE13-A011

Various Interpolation Methods for Rainfall Estimation

Beth Zaida UGAT[1#+], Wilbur MANIBO[2], Decibel FAUSTINO-ESLAVA[1], Joey Philip TORRES[2], Jenielyn PADRONES[2], Nathaniel BANTAYAN[2], Cristino Jr. TIBURAN[2], Loucel CUI[1], Carla DIMALANTA[3]

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SE13-D4-PM1-P-204 | SE13-A015

Frictional and Kinematical Characteristics of the Hungtsaiping Landslide, Taiwan

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SE14-D4-PM1-P-205 | SE14-A002

Fractal Analysis of the Epicentral Field of Earthquakes and Their Time Series, Fault and Drinage Systems of the Sikhote-Alin and Adjacent Territories

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SE14-D4-PM1-P-206 | SE14-A003

New Slip Rates for the Tianjingshan Fault Using Optically Simulated Luminescence, GPS, and Paleoseismic Data, Northeast Tibet, China

Xinnan LI[1#+], Chuanyou LI[1], Ian PIERCE[2], Peizhen ZHANG[3], Wenjun ZHENG[3], Jinyuan DONG[1], Gan CHEN[3], Ming AI[1], Guangxue REN[1], Quanxing LUO[1]

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SE14-D4-PM1-P-207 | SE14-A010

Seismicity and Fault Interaction in Fault Systems: Insights from a Geodynamic Modeling

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SE14-D4-PM1-P-208 | SE14-A017

Active Tectonics of the Kabaw Fault Zone, Western Myanmar

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SE17-D4-PM1-P-210 | SE17-A006

Processing the Low Frequency of Residual Orbit

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SE17-D4-PM1-P-214 | SE17-A013

Estimating Regional Groundwater Recharge Beneath Thick Unsaturated Zones Using a Grace-based Water Budget Method

Longqun ZHENG[1+], Yun PAN[1#], Huili GONG[1], Qingquan ZHANG[1]

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SE18-D4-PM1-P-215 | SE18-A006

Mining Continuous Seismic Waveform to Quantify Our Ability to See Significant Changes in a Volcanic System

Chiou Ting TAN[1#+], Benoit TAISNE[1], Winchelle Ian SEVILLA[2], Christian CLARITO[2], Yizhou LUO[1], Lauriane CHARDOT[1], Corentin CAUDRON[3]

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SE18-D4-PM1-P-216 | SE18-A007

Evaluate the Influence of Instrumental Bias on Single Analysis Based on Network Geometry

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SE18-D4-PM1-P-217 | SE18-A008 (Invited)

Microgravity Observations in Mayon Volcano, Philippines During and After the 2018 Eruptions

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SE18-D4-PM1-P-218 | SE18-A009

Ground Deformation Analysis of the 2018 Mayon Volcano Eruption Using GPS

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SE18-D4-PM1-P-219 | SE18-A010

PHIVOLCS-LAVA – Volcano Monitoring System from Archiving to Analysis Accessible Anytime and Anywhere

Maricel CAPA[1#], Mary Jane CATAPANG[1+], Mariton BORNAS[1], Robert GARLOPE[1], Christina WIDIWIJAYANTI[2], Nang THIN ZAR WIN[2], Renato SOLIDUM[1], Kenn John VERACRUZ[1], Nerissa SENA[1], Fidel COSTA[2]

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SE18-D4-PM1-P-220 | SE18-A011

Characterization of Seismic Activity Associated with the 2018 Mayon Volcano Eruption

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SE18-D4-PM1-P-221 | SE18-A013

First Continuous MultiGAS Station in Taal Volcano, Philippines

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SE18-D4-PM1-P-222 | SE18-A017

Monitoring Three-dimensional Deformations for Kilauea Volcano by Integrating Multi-source InSAR Point Clouds

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SE19-D4-PM1-P-223 | SE19-A001

Seismic Velocity Imaging of a Real Dataset Using Migration Velocity Analysis

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SE19-D4-PM1-P-224 | SE19-A007

Amplitude Fluctuation of High-frequency Seismic Waves Propagating in the Heterogeneous Crust

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SE19-D4-PM1-P-225 | SE19-A009

Preliminary Result of Tomographic Imaging Beneath the Sunda-banda Arc Transition Zone, Indonesia Using YS Seismic Network

Andri Dian NUGRAHA[1#], Pepen SUPENDI[1+], Sri WIDIYANTORO[1], Chalid Idham ABDULLAH[1], Cooper W. HARRIS[2], Meghan MILLER[3], Phil CUMMINS[3]

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SE19-D4-PM1-P-226 | SE19-A016

Crustal and Uppermost Mantle Structure in Nanling Area Revealed from Sp and Ps Receiver Functions

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SE19-D4-PM1-P-227 | SE19-A020

The Crustal Structures in Central China:Revealed from High-resolution Seismic-reflection Profiling Across the Daba Shan and Gravity, Magnetic Anomalies

Shang PAN[1+], Xiao XU[1#], Rui GAO[1], Liang Hui GUO[2]

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SE19-D4-PM1-P-228 | SE19-A022

Crustal Azimuthal Anisotropy Beneath Abaga Area in Inner Mongolia

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SE20-D4-PM1-P-229 | SE20-A003

The Analysis of Spectral Characteristics of Gravity Data Based on Crustal Layer Density Data Derived from CRUST1.0

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SE20-D4-PM1-P-230 | SE20-A004

High Mantle Temperature Beneath the Proto-adare Basin, Antarctica: The Possible Cause of Synchronous Rifting Across the Continental-ocean Boundary

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SE20-D4-PM1-P-231 | SE20-A006

Crust/Mantle Strength Ratios as First-order Indicators for Determining Deformation Style of Lithospheres

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SE20-D4-PM1-P-232 | SE20-A007

Transient Creep of Dunites and its Importance in Earthquake Cycle Models

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SE21-D4-PM1-P-234 | SE21-A003

Geochemical Characteristics and Their Implications of Peridotites from Kedanshan Ophiolite. Inner Mongolia, China

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SE21-D4-PM1-P-235 | SE21-A008

Contrasted East Asia and South America Tectonics Driven by Deep Mantle Flow

Ting YANG[1#+], Louis MORESI[2], Michael GURNIS[3], Shaofeng LIU[4], Dan SANDIFORD[2], Simon WILLIAMS[5], Fabio CAPITANIO[6]

[1]Southern University of Science and Technology, [2]The University of Melbourne, [3]California Institute of Technology, [4]China University of Geosciences (Beijing), [5]The University of Sydney, [6]Monash University

SE21-D4-PM1-P-236 | SE21-A009

A New Discovery of Sodic-amphibole in Metasomatic Zones Around Serpentinite, Yuli Belt, Eastern Taiwan: Metamorphic Conditions and Tectonic Implications

Dominikus Deka DEWANGGA[1#+], Chin-Ho TSAI[1], Yoshiyuki IIZUKA[2], Chih-Ying YEH[1], Yui KOUKETSU[3]

[1]National Dong Hwa University, [2]Academia Sinica, [3]Nagoya University

SE21-D4-PM1-P-237 | SE21-A010

The North Fijian Basin: A Case Study of the Geodynamics of Collision and Overriding Plate Deformation

Rebecca FARRINGTON[1#+], Maria SETON[2], Louis MORESI[1], Simon WILLIAMS[2]

[1]The University of Melbourne, [2]The University of Sydney

SE21-D4-PM1-P-238 | SE21-A011

Thermo-mechanical Models on the Trench Retreat and Back-Arc Spreading

Chih-Chin LEE[1#+], Eh TAN[2]

[1]National Taiwan University, [2]Academia Sinica

SE21-D4-PM1-P-239 | SE21-A013

Craton Stability: Shape Matters Too?

Catherine COOPER[1], Rebecca FARRINGTON[2#+], Meghan MILLER[3]

[1]Washington State University, [2]The University of Melbourne, [3]Australian National University

SE21-D4-PM1-P-240 | SE21-A014

Effects of Slab Windows on the Physical State of the Upper Mantle: Constraints from Receiver Function Investigations in the Indochina Peninsula and Alaska

Stephen GAO[1#+], Kelly LIU[1], Youqiang YU[2], Haider DAHM[3], Fansheng KONG[4]

[1]Missouri University of Science and Technology, [2]Tongji University, [3]Misan University, [4]Ministry of Natural Resources

SE22-D4-PM1-P-241 | SE22-A001

A Geodynamic Modeling Study on Hydrothermal Mineralization in Porphyry Systems

Cheng CHANG[1#+], Gang LUO[1]

[1]University of Chinese Academy of Sciences

SE22-D4-PM1-P-242 | SE22-A004

Preliminary Results from a New Occurrence of a Sheeted Dyke Complex in the Ophiolite Complex of Telupid (Sabah, Malaysia)

Nur 'Aqidah Binti HAJI NORAZME[1#+], Basilios TSIKOURAS[1], Chun-Kit LAI[1]

[1]Universiti Brunei Darussalam

SE22-D4-PM1-P-243 | SE22-A005

Ore Paragenesis and Fluid Inclusion Study on the Balatoc Diatreme-hosted 90 Vein, Acupan, Baguio Mineral District

Acer Jian FIGUEROA[1#+], Jillian Aira GABO-RATIO[1], Karl JABAGAT[1], Aljess RAMOS[2]

[1]University of the Philippines Diliman, [2]Benguet Corporation

SE22-D4-PM1-P-244 | SE22-A009

Geology and Geochemistry of Miocene Volcanic Rocks in Northeastern Borneo

Nur 'Aqidah Binti HAJI NORAZME[1#+], Chun-Kit LAI[1], Ikrar Teguh MANDIRI[2], Basilios TSIKOURAS[1], Utreck RUMBIAK[3], Lejun ZHANG[4], Sebastien MEFFRE[4]

[1]Universiti Brunei Darussalam, [2]JResources, PT Sago Prima Pratama, [3]Padjadjaran University, [4]University of Tasmania

SE22-D4-PM1-P-245 | SE22-A012

Mineral Deposit Evolution of the Bagacay Volcanogenic Massive Sulfide Deposit, Samar, Philippines: Insights from Ore Mineral Paragenetic Studies

Jessamin Belle DEMEGILLO[1#+], Jillian Aira GABO-RATIO[1], Akira IMAI[2], Kotaro YONEZU[2], Nichole Anthony PACLE[1], Thomas TINDELL[2]

[1]University of the Philippines Diliman, [2]Kyushu University

SE22-D4-PM1-P-246 | SE22-A014

Mapping Alteration Zones in the Southern Part of the Mankayan Mining District Using GIS and Remote Sensing

Jenielyn PADRONES[1#+], Bryan Derek PINKIHAN[2], Jan Joseph DIDA[2], Jayson ARIZAPA[1], Cristino Jr. TIBURAN[1], Arvin TRINIDAD[3], Graciano YUMUL JR. [3]

[1]University of the Philippines, [2]University of the Philippines Los Banos, [3]Apex Mining Company Inc.

SE22-D4-PM1-P-247 | SE22-A026

Multiphase Magmatism Along Sagaing Fault in Central Myanmar: Zircon Age and Whole-rock Geochemical Constraints

Nur 'Aqidah Binti HAJI NORAZME[1+], Khin ZAW[2#], Chun-Kit LAI[1], Sebastien MEFFRE[2], Tin Aung MYINT[3]

[1]Universiti Brunei Darussalam, [2]University of Tasmania, [3]Mandalay University

SE23-D4-PM1-P-249 | SE23-A005

Petrography and Geochemistry of Gabbros from Central Palawan, Philippines

Jesley Mei DYCOCO[1#+], Betchaida PAYOT[1], Gabriel Theophilus VALERA[1], Valerie Shayne OLFINDO[2], Florence Annette LABIS[2], Julius PASCO[2]

[1]University of the Philippines Diliman, [2]University of the Philippines

SE23-D4-PM1-P-250 | SE23-A007

Podiform Chromitites from the Ulugan Bay, Palawan Island, Philippines

Betchaida PAYOT[1#+], Gabriel Theophilus VALERA[1], Julius PASCO[2], Jesley Mei DYCOCO[1], Florence Annette LABIS[2]

[1]University of the Philippines Diliman, [2]University of the Philippines

SE24-D4-PM1-P-251 | SE24-A002

Analysis of Anisotropy Using Well Data in Gas Hydrate Bearing Sediments: A Case Study in Mahanadi Offshore Basin, (NGHP)-01, India

Dip Kumar SINGHA[1#+], Pradeep Kumar SHUKLA[1], Kalachand SAIN[2]

[1]Banaras Hindu University, [2]CSIR-National Geophysical Research Institute

SE24-D4-PM1-P-253 | SE24-A004

Development of New Quantitatively Index of Non-linear Soil Response

Jyun-Yan HUANG[1#+]

[1]National Center for Research on Earthquake Engineering

SE24-D4-PM1-P-254 | SE24-A014

Concrete Raw Materials Utilized in Greater Manila Area, Philippines: Framework of Geological, Chemical and Physical Evaluation for Quality Control

Maria Elizabeth LAUS[1#+], Marlon CONATO[1], Carlo ARCILLA[1], Nancy AGUDA[1], Antonio REYNO[1], Jeremy James JIMENEZ[1], Richard YBAÑEZ[1]

[1]University of the Philippines Diliman

SE30-D4-PM1-P-255 | SE30-A003

Development of Geologic Model Using High-resolution Seismic Data in the Korea Plateau

Gwangsoo LEE[1#+], Byoung-Yeop KIM[1], Boyeon YI[1]

[1]Korea Institute of Geoscience and Mineral Resources

SE30-D4-PM1-P-256 | SE30-A006

Petrogenesis of the Granitic Rocks in Northern Palawan Island: Constraints from Geochemistry and Sr-Nd Isotopes

Jenielyn PADRONES[1#+], Akira IMAI[2], Ryohei TAKAHASHI [3], Kenichiro TANI[4], Jillian Aira GABO-RATIO[5]

[1]University of the Philippines, [2]Kyushu University, [3]Akita University, [4]National Museum of Nature and Science, [5]University of the Philippines Diliman

SE30-D4-PM1-P-257 | SE30-A010

Seismic Array Observations in the Northern Manila Trench Area Using Ocean Bottom Seismometers

An LI[1], Jing-Yi LIN[1#+], Shao-Jinn CHIN[1]

[1]National Central University

SE30-D4-PM1-P-259 | SE30-A014

Mapping and Tectonic Geomorphology of Offshore Extension of the Philippine Fault in Surigao Strait

Deo Carlo LLAMAS[1,2#+], Bryan MARFITO[1], Emmanuelle MITIAM[1]

[1]Philippine Institute of Volcanology and Seismology, [2]University of the Philippines

SE30-D4-PM1-P-260 | SE30-A015

What Cause the Common-mode Error in Array GPS Displacement Fields: Case Study for Taiwan in Relation to Atmospheric Mass Loading

Utpal KUMAR[1#+], Benjamin Fong CHAO[2], Emmy Tsui-Yu CHANG[3]

[1]Institute of Earth Sciences, [2]Academia Sinica, [3]National Taiwan University

Day 05

02 Aug, Fri

Day 05 - 02 Aug 2019, Friday

Program Overview

Time / Room	AM1	AM2	PM1
	08:30 - 10:30	11:00 - 12:30	13:30 - 15:30
MR308	ST23 *p.M184*	ST33 *p.M191*	
MR304	ST13 *p.M185*	ST12 *p.M192*	
MR303	AS33 *p.M185*	AS33 *p.M192*	
MR330	HS32 *p.M186*	HS33 *p.M193*	
MR329	HS10 *p.M186*	HS10 *p.M193*	
MR328	HS15 *p.M187*	HS16 *p.M193*	
MR310	PS10 *p.M187*	PS10 *p.M194*	
MR311	AS04 *p.M188*	AS04 *p.M194*	
MR327	OS01 *p.M188*	OS01 *p.M194*	
MR302	AS40 *p.M189*	AS40 *p.M195*	
MR301	AS13 *p.M189*	AS13 *p.M195*	
MR300	BG11 *p.M190*	BG11 *p.M196*	
MR309	ST25 *p.M190*	ST25 *p.M196*	
MR323	IG15 *p.M191*	IG15 *p.M197*	
Nicoll 1		SE14 *p.M195*	
Nicoll 2	SE18 *p.M184*	SE28 *p.M191*	Closing *p.F9*

Sessions & Conveners

* Main Convener

AS04-Madden-Julian Oscillation and Its Global Impacts
*Ziniu XIAO *Chinese Academy of Sciences*, Jian LING *Chinese Academy of Sciences*

AS13-Passive and Active Sensing of the Chemistry and Dynamics of the Middle and Upper Atmosphere
*Patrick ESPY *Norwegian University of Science and Technology*, Iain REID *ATRAD Pty Ltd*, Jeng-Hwa YEE *The Johns Hopkins University Applied Physics Laboratory*

AS33-The Multi-scale Effects of Topography on Monsoons
*Kalli FURTADO *Met Office*, Haoming CHEN *Chinese Academy of Meteorological Sciences*, Jian LI *Chinese Academy of Meteorological Sciences*

AS40-Precipitation Science and Application of Satellite Data
*Yukari TAKAYABU *The University of Tokyo*, Kenji NAKAMURA *Dokkyo University*, Kusuma RAO *Indian Space Research Organization*, Geun-Hyeok RYU *Korea Meteorological Administration*, Gail SKOFRONICK-JACKSON *NASA Goddard Space Flight Center*

BG11-Biogeosciences General Session
*Punyasloke BHADURY *Indian Institute of Science Education and Research Kolkata*, Long CAO *Zhejiang University*, Bhoopesh MISHRA *University of Leeds*, Prabir K. PATRA *Japan Agency for Marine-Earth Science and Technology*

HS10-Hydrologic Extremes in a Changing Climate
*C. T. DHANYA *Indian Institute of Technology Delhi*, Rajib MAITY *Indian Institute of Technology Kharagpur*, Sonali PATTANAYAK *Indian Institute of Science*, Shailesh SINGH *National Institute of Water and Atmospheric Research*

HS15-Land and Water Management for Sustainability
*Shailesh SINGH *National Institute of Water and Atmospheric Research*, Jun NIU *China Agricultural University*, Bellie SIVAKUMAR *University of New South Wales*

HS16- Impacts and Consequences of Changing Climate and Landuse on Hydrology
*Shailesh SINGH *National Institute of Water and Atmospheric Research*, C. T. DHANYA *Indian Institute of Technology Delhi*, Rajib MAITY *Indian Institute of Technology Kharagpur*, Mingna WANG *China Institute of Water Resources and Hydropower Research*

HS32-"Spatial Hydrology: Extreme Erosion Processes, Hydrological Connectivity, and Remote Sensing Applications"
*Ben JARIHANI *University of the Sunshine Coast*, David HIGGITT *Beijing Jiaotong University (Lancaster University College)*, Sim REANEY *Durham University*, Roy SIDLE *University of the Sunshine Coast*, Jet-Chau WEN *National Yunlin University of Science and Technology*

HS33-Hydrometeorological Applications and Hydrologic Prediction: Severe Weather Precipitation Detection, Estimation, and Forecast
*Youcun QI *Institute of Geographic Sciences and Resources Research*, Basudev BISWAL *Indian Institute of Technology Hyderabad*, Jie CAO *Chinese Academy of Sciences*, Guangyao GAO *Chinese Academy of Sciences*, Man ZHANG *University of Oklahoma*

IG15-Data-driven Modeling in Geoscience
*Shin-ichi ITO *The University of Tokyo*, Ryoichiro AGATA *Japan Agency for Marine-Earth Science and Technology*, Dmitri KONDRASHOV *University of California, Los Angeles*, Shunichi NOMURA *The Institute of Statistical Mathematics*

OS01-The Southern Ocean and Polar Regions and Their Roles in Climate
*Robin ROBERTSON *Xiamen University Malaysia*, Wenju CAI *Ocean University of China and Qingdao National Laboratory for Marine Science and Technology*, Sheeba Nettukandy CHENOLI *University of Malaya*, Seong-Joong KIM *Korean Polar Research Institute*

PS10-Aeronomy and Plasma Physics of Planetary Environments
*Robert LILLIS *University of California, Berkeley*, Jun CUI *National Astronomical Observatories of China*, Dominique DELCOURT *French National Centre for Scientific Research*, Shotaro SAKAI *The University of Tokyo*, Varun SHEEL *Physical Research Laboratory*

ST12-Wave-particle Interactions in the Magnetosphere
*Yuto KATOH *Tohoku University*, Dong-Hun LEE *Kyung Hee University*, Yoshiharu OMURA *Kyoto University*, Danny SUMMERS *Memorial University of Newfoundland*

ST13-New Perspectives on Earth's Inner Magnetosphere from Multipoint Satellite Observations and Data-ingestive Modeling
*Drew TURNER *The Aerospace Corporation*, Satoshi KURITA *Nagoya University*, Xinlin LI *University of Colorado Boulder*, Wenlong LIU *Beihang University*

ST23-Coupling Between Inner-magnetospheric and Ionospheric Particle Populations
*Dedong WANG *GFZ German Research Center for Geosciences*, Yoshizumi MIYOSHI *Nagoya University*, Zhigang YUAN *Wuhan University*, Chao YUE *University of California, Los Angeles*, Qiugang ZONG *Peking University*

ST25-Turbulence and Particle Energization in Space, Astrophysical and Laboratory Plasmas
*Shiyong HUANG *Wuhan University*, Jiansen HE *Peking University*, Fouad SAHRAOUI *Plasma Physics Laboratory*

ST33-Ionospheric Weather Induced by Solar and Terrestrial Activities
*Jann-Yenq (Tiger) LIU *National Central University*, Katsumi HATTORI *Chiba University*, Dimitar OUZOUNOV *Chapman University*, Xuhui SHEN *China Earthquake Administration*, Valerio TRAMUTOLI *University of Basilicata*

SE14-Active Tectonics, Faults and Large Fast & Slow Earthquakes
*Sushil KUMAR *Wadia Institute of Himalayan Geology*, Sudhir RAJAURE *Ministry of Industry*

SE18-Linking Numerical, Analytical and Experimental Modelling with Remote and Local Volcano Monitoring Data
*Benoit TAISNE *Nanyang Technological University*, Fidel COSTA *Nanyang Technological University*, Adel EMADZADEH *Nanyang Technological University*, Paul LUNDGREN *Jet Propulsion Laboratory, California Institute of Technology*, Alberto ROMAN *Jet Propulsion Laboratory*

SE28-Advances in Fiber-optic Technologies for Geophysical Applications
*Philippe JOUSSET *GFZ German Research Centre for Geosciences*, Yosuke AOKI *The University of Tokyo*, Yunyue LI *National University of Singapore*, Benoit TAISNE *Nanyang Technological University*

ST23 / Coupling Between Inner-magnetospheric and Ionospheric Particle Populations

Fri - 02 Aug | MR308

Time 08:30-10:30

Chair(s) Yoshizumi MIYOSHI, *Nagoya University*
Dedong WANG, *GFZ German Research Center for Geosciences*

ST23-D5-AM1-308-001 | ST23-A008

Local Generation of EMIC Waves Near the Plasmapause: Coordinated Magnetosphere-ionosphere-ground Observations
Khan-Hyuk KIM[1#+], Hyuck-Jin KWON[2], Hyomin KIM[3], Ho JIN[1], Jehyuck SHIN[1], Tanja FROMM[4], Jürgen MATZKA[5], Marc LESSARD[6]
[1]Kyung Hee University, [2]Korea Polar Research Institute, [3]New Jersey Institute of Technology, [4]Alfred Wegner Institute Helmholtz Centre for Polar and Marine Research, [5]GFZ German Research Centre for Geosciences, [6]University of New Hampshire

ST23-D5-AM1-308-002 | ST23-A012

Precipitation of Radiation Belt Electrons by EMIC Waves with Conjugated Observations of NOAA and Van Allen Satellites
Zhigang YUAN[1#+], Kun LIU[1], Xiongdong YU[1], Fei YAO[1], Shiyong HUANG[1], Dedong WANG[2], Zhihai OUYANG[1]
[1]Wuhan University, [2]GFZ German Research Center for Geosciences

ST23-D5-AM1-308-003 | ST23-A003

Reanalysis of Radiation Belt Electron Phase Space Density Using Four Spacecraft and the Verb Code
Juan Sebastian CERVANTES VILLA[1#], Yuri SHPRITS[2+], Adam KELLERMAN[3], Alexander DROZDOV[4], Nikita ASEEV[1], Angelica CASTILLO[1]
[1]GFZ German Research Centre for Geosciences, [2]GFZ German Research Center for Geosciences, [3]Institute of Geophysics and Planetary Physics, [4]University of California, Los Angeles

ST23-D5-AM1-308-004 | ST23-A005 (Invited)

The Coupling Between Ring Current and Radiation Belt Through Magnetic Dips
Lunjin CHEN[1#+]
[1]The University of Texas at Dallas

ST23-D5-AM1-308-005 | ST23-A004 (Invited)

Magnetosphere-ionosphere Connection of Storm-time Region-2 Field-aligned Current and Ring Current: Arase and AMPERE Observations
Shun IMAJO[1#+], Masahito NOSÉ[1], Ayako MATSUOKA[2], Satoshi KASAHARA[3], Shoichiro YOKOTA[4], Mariko TERAMOTO[1], Tetsuo MOTOBA[5], Brian ANDERSON[5], Reiko NOMURA[6], Akiko FUJIMOTO[7], Iku SHINOHARA[2], Yoshizumi MIYOSHI[1]
[1]Nagoya University, [2]Japan Aerospace Exploration Agency, [3]The University of Tokyo, [4]Osaka University, [5]The Johns Hopkins University Applied Physics Laboratory, [6]National Astronomical Observatory of Japan, [7]Kyushu Institute of Technology

ST23-D5-AM1-308-006 | ST23-A001

Controlling Effect of Wave Models and Plasmapause Position on the Dynamic Evolution of Radiation Belt Electrons
Dedong WANG[1#+], Yuri SHPRITS[1], Irina ZHELAVSKAYA[1]
[1]GFZ German Research Center for Geosciences

SE18 / Linking Numerical, Analytical and Experimental Modelling with Remote and Local Volcano Monitoring Data

Fri - 02 Aug | Nicoll 2

Time 08:30-10:30

Chair(s) Benoit TAISNE, *Nanyang Technological University*
Paul LUNDGREN, *Jet Propulsion Laboratory, California Institute of Technology*
Alberto ROMAN, *Jet Propulsion Laboratory, California Institute of Technology*

SE18-D5-AM1-Nicoll 2-001 | SE18-A014

Locally Thin Crust and High Crustal VP/VS Beneath the Armenia Volcanic Highland of the Lesser Caucasus in West Asia
Tai-Lin TSENG[1#+], Chih-Ming LIN[1], Bor-Shouh HUANG[2]
[1]National Taiwan University, [2]Academia Sinica

SE18-D5-AM1-Nicoll 2-002 | SE18-A016

Geomorphological Studies on Bromo Volcanic Complex Through Remote Sensing and Field Observation to Understand its Volcanic Evolution and Vulnearability to Volcanic Hazard
Achmad Nazar ABRORY[1#+], Mirzam ABDURRACHMAN[2]
[1]Institut Teknologi Bandung, [2]Bandung Institute of Technology

SE18-D5-AM1-Nicoll 2-003 | SE18-A005

Optimizing the Use of Volcano Monitoring Database to Anticipate Eruption
Christina WIDIWIJAYANTI[1#+], Fidel COSTA[1], Nang THIN ZAR WIN[1], Tania ESPINOSA-ORTEGA[1]
[1]Nanyang Technological University

SE18-D5-AM1-Nicoll 2-004 | SE18-A002

Dynamics of Unrest at a Large Silicic Volcanic System: Domuyo Volcano, Argentina
Paul LUNDGREN[1#+], Társilo GIRONA[1], Sergey SAMSONOV[2], Vincent REALMUTO[1], M. Grace BATO[1]
[1]Jet Propulsion Laboratory, California Institute of Technology, [2]Natural Resources Canada

SE18-D5-AM1-Nicoll 2-005 | SE18-A004

Joint Inversion and Assimilation Technique to Understand Inter-eruptive Deformation Processes at Sierra Negra and Kilauea Volcanoes
Mary Grace BATO[1#+], Paul LUNDGREN[1], Marco BAGNARDI[1], Virginie PINEL[2]
[1]Jet Propulsion Laboratory, California Institute of Technology, [2]Université Savoie-Mont Blanc

SE18-D5-AM1-Nicoll 2-006 | SE18-A001 (Invited)

Numerical Models for Time-dependent Conduit Magma Flow in Dome-forming Eruptions Applied to Mount St. Helens 2004-2008
Ying Qi WONG[1#+], Paul SEGALL[1]
[1]Stanford University

SE18-D5-AM1-Nicoll 2-007 | SE18-A003

Closing Magmatic Conduits: Constraints from Geodetic Observations and Dynamical Models
Alberto ROMAN[1#+], Marco BAGNARDI[1], Paul LUNDGREN[1]
[1]Jet Propulsion Laboratory, California Institute of Technology

SE18-D5-AM1-Nicoll 2-008 | SE18-A012

Near Real Time Estimation of Plume Height for the Mayon 2018 Eruption from Infrasound
Anna PERTTU[1#+], Benoit TAISNE[1], Yizhou LUO[1], Christian CLARITO[2], Winchelle Ian SEVILLA[2]
[1]Nanyang Technological University, [2]Philippine Institute of Volcanology and Seismology

ST13 / New Perspectives on Earth's Inner Magnetosphere from Multipoint Satellite Observations and Data-ingestive Modeling

Fri - 02 Aug | MR304

Time 08:30-10:30
Chair(s) Drew TURNER, *The Aerospace Corporation*
Satoshi KURITA, *Nagoya University*

ST13-D5-AM1-304-001 | ST13-A005 (Invited)

Drift-bounce Resonance Between PC5 Pulsations and Ions at Multiple Energies in the Nightside Magnetosphere: Arase and MMS Observations
Satoshi OIMATSU[1#+], Masahito NOSÉ[2], Mariko TERAMOTO[2], Kazuhiro YAMAMOTO[1], Ayako MATSUOKA[3], Satoshi KASAHARA[4], Shoichiro YOKOTA[5], Kunihiro KEIKA[4], Guan LE[6], Reiko NOMURA[7], Akiko FUJIMOTO[8], Oleg TROSHICHEV[9], Dmitry SORMAKOV[9], Yoshimasa TANAKA[10], Manabu SHINOHARA[11], Iku SHINOHARA[3], Yoshizumi MIYOSHI[2], James SLAVIN[12], Robert ERGUN[13], Per-Arne LINDQVIST[14]
[1]Kyoto University, [2]Nagoya University, [3]Japan Aerospace Exploration Agency, [4]The University of Tokyo, [5]Osaka University, [6]NASA Goddard Space Flight Center, [7]National Astronomical Observatory of Japan, [8]Kyushu Institute of Technology, [9]Arctic and Antarctic Research Institute, [10]National Institute of Polar Research, [11]National Institute of Technology, Kagoshima College, [12]University of Michigan, [13]University of Colorado Boulder, [14]KTH Royal Institute of Technology

ST13-D5-AM1-304-002 | ST13-A003

Multi-year Measurements of Radiation Belt Electrons: Acceleration, Transport, and Loss
Daniel BAKER[1#+], Vaughn HOXIE[1], Hong ZHAO[1], Xinlin LI[1], Allison JAYNES[2], Shri KANEKAL[3], Scot ELKINGTON[1]
[1]University of Colorado Boulder, [2]The University of Iowa, [3]NASA Goddard Space Flight Center

ST13-D5-AM1-304-003 | ST13-A006 (Invited)

Electron Scattering by Chorus Waves Generating Pulsating Aurora
Satoshi KASAHARA[1#+], Yoshizumi MIYOSHI[2], Shoichiro YOKOTA[3], Takefumi MITANI[4], Yoshiya KASAHARA[5], Shoya MATSUDA[4], Atsushi KUMAMOTO[6], Ayako MATSUOKA[4], Yoichi KAZAMA[7], Harald FREY[8], Vassilis ANGELOPOULOS[9], Satoshi KURITA[2], Kunihiro KEIKA[1], Kanako SEKI[1], Iku SHINOHARA[4]
[1]The University of Tokyo, [2]Nagoya University, [3]Osaka University, [4]Japan Aerospace Exploration Agency, [5]Kanazawa University, [6]Tohoku University, [7]The Academia Sinica Institute of Astronomy and Astrophysics (ASIAA), [8]University of California, Berkeley, [9]University of California, Los Angeles

ST13-D5-AM1-304-004 | ST13-A002

Chorus and Microbursts: Quantifying the Connection with a Substantial Dataset of Simultaneous Low- and High-altitude High Time Resolution Observations
Aaron BRENEMAN[1#+], John SAMPLE[2], Arlo JOHNSON[2], Mykhaylo SHUMKO[2], Alex CREW[3], Chris COLPITTS[1], Harlan SPENCE[4], Berhard BLAKE[5], Robyn MILLAN[6]
[1]University of Minnesota, [2]Montana State University, [3]The John Hopkins University, [4]University of New Hampshire, [5]The Aerospace Corporation, [6]Dartmouth University

ST13-D5-AM1-304-005 | ST13-A007

Multi-point Observations of Chorus Properties and Propagation in the Inner Magnetosphere Using Conjunctions Between Arase and Van Allen Probes
Chris COLPITTS[1#+], Yoshizumi MIYOSHI[2], Cynthia CATTELL[1], John WYGANT[1], Yoshiya KASAHARA[3], Yuto KATOH[4], Aaron BRENEMAN[1], George HOSPODARSKY[5], Masahiro KITAHARA[4]
[1]University of Minnesota, [2]Nagoya University, [3]Kanazawa University, [4]Tohoku University, [5]The University of Iowa

ST13-D5-AM1-304-006 | ST13-A001 (Invited)

Multi-satellite Observations of Bump-on-tail Energy Spectrum of Radiation Belt Electrons
Hong ZHAO[1#+], William JOHNSTON[2], Dan BAKER[1], Binbin NI[3], Allison JAYNES[4], Shri KANEKAL[5], Berhard BLAKE[6], Seth CLAUDEPIERRE[6], Geoffrey REEVES[7], Alexander BOYD[8]
[1]University of Colorado Boulder, [2]Air Force Research Laboratory, [3]Wuhan University, [4]The University of Iowa, [5]NASA Goddard Space Flight Center, [6]The Aerospace Corporation, [7]Los Alamos National Laboratory, [8]New Mexico Consortium

ST13-D5-AM1-304-007 | ST13-A009 (Invited)

Formation of Reversed Energy Spectrum of Radiation Belt Electrons Caused by Plasmaspheric Hiss Scattering
Binbin NI[1#+], Hong ZHAO[2], Dan BAKER[2], Wenxun ZHANG[1], Zheng XIANG[1], Xudong GU[1], William JOHNSTON[3], Allison JAYNES[4], Shri KANEKAL[5], Berhard BLAKE[6], Seth CLAUDEPIERRE[6], Michael TEMERIN[7], Geoffrey REEVES[8], Herbert FUNSTEN[8], Alexander BOYD[9]
[1]Wuhan University, [2]University of Colorado Boulder, [3]Air Force Research Laboratory, [4]The University of Iowa, [5]NASA Goddard Space Flight Center, [6]The Aerospace Corporation, [7]University of California, Berkeley, [8]Los Alamos National Laboratory, [9]New Mexico Consortium

AS33 / The Multi-scale Effects of Topography on Monsoons

Fri - 02 Aug | MR303

Time 08:30-10:30
Chair(s) Jian LI, *Chinese Academy of Meteorological Sciences*
Kalli FURTADO, *Met Office*

AS33-D5-AM1-303-001 | AS33-A005 (Invited)

Simulating Mesoscale Orographic Cyclones and Orographic Forcing of the Asian Summer Monsoons in High Resolution Global Climate Models
Reinhard SCHIEMANN[1,2#+], Julia CURIO[2], Andrew TURNER[1,2], Kai Chi WONG[1,2], Sengfeng LIU[3]
[1]National Centre for Atmospheric Science, [2]University of Reading, [3]Chinese Academy of Sciences

AS33-D5-AM1-303-002 | AS33-A013 (Invited)

The Synergetic Effects Between the Tibetan Plateau and Tropical Ocean on the Interannual Variability of East Asian Summer Monsoon

Anmin DUAN[1#+], Sengfeng LIU[1]
[1]*Chinese Academy of Sciences*

AS33-D5-AM1-303-003 | AS33-A011

Diurnal Cycle of the Asian Summer Monsoon

Guixing CHEN[1#+]
[1]*Sun Yat-sen University*

AS33-D5-AM1-303-004 | AS33-A019

Structure, Lifecycle and Environmental Conditions of Tibetan Plateau Vortices

Julia CURIO[1#+], Reinhard SCHIEMANN[1,2], Kevin HODGES[1], Andrew TURNER[1,2], Nicholas KLINGAMAN[1,2]
[1]*University of Reading,* [2]*National Centre for Atmospheric Science*

AS33-D5-AM1-303-005 | AS33-A004

Review on Integrated Meteorological Observation and Research at Dali National Climate Observatory

Anlun XU[1#+], Jian LI[2]
[1]*Dali National Climate Observatory,* [2]*Chinese Academy of Meteorological Sciences*

AS33-D5-AM1-303-006 | AS33-A006

Warm Season Nocturnal Rainfall over the Eastern Periphery of the Tibetan Plateau and its Relationship with Rainfall Events in Adjacent Regions

Haoming CHEN[1#+], Jian LI[1]
[1]*Chinese Academy of Meteorological Sciences*

HS32 / "Spatial Hydrology: Extreme Erosion Processes, Hydrological Connectivity, and Remote Sensing Applications"

Fri - 02 Aug | MR330

Time 08:30-10:30

Chair(s) Ben JARIHANI, *University of the Sunshine Coast*
Jet-Chau WEN, *National Yunlin University of Science and Technology*

HS32-D5-AM1-330-001 | HS32-A012 (Invited)

An Application of Natural Disaster Management Using Scientific Analysis

Jyun-Lin CHEN[1#], Jet-Chau WEN[1+]
[1]*National Yunlin University of Science and Technology*

HS32-D5-AM1-330-002 | HS32-A016

Analysis on the Formation Mechanism and Trend of Near-shore Scour Geomorphology in the Estuarine Turbidity Maxima of Yangtze

Heqin CHENG[1#+], Jiufa LI[1]
[1]*East China Normal University*

HS32-D5-AM1-330-003 | HS32-A017

Projected Changes in Rainfall Extremes and Population Exposure over Low Elevation Coastal Regions of Southeast Asia

Pradeep MANDAPAKA[1#+], Edmond LO[1]
[1]*Nanyang Technological University*

HS32-D5-AM1-330-004 | HS32-A009

The Development of Water Quality Monitoring System for Small Scale Waterbody in Urban Catchment by Sentinel-2

Bowen CHEN[1], Jeanne Jinhui HUANG[1#], Han CHEN[1+], Jingshu WANG[1]
[1]*Nankai University*

HS32-D5-AM1-330-005 | HS32-A004

Retrieving Vegetation Transpiration by Wet-boundary Algorithm for Two-layer Remote Sensing Model

Han CHEN[1#+], Jeanne Jinhui HUANG[1]
[1]*Nankai University*

HS32-D5-AM1-330-006 | HS32-A013

Application of Image Recognition Technology on the Measurement of Ground Sill and Hydraulic Dredge Pit

Shu-Yuan YANG[1+], Fong-Zuo LEE[1#], Jihn-Sung LAI[1], Hong-Yuan LEE[1], Cheng-Chi LIU[1], Hsing-Jui WANG[1], Chih-Hsien YANG[1]
[1]*National Taiwan University*

HS10 / Hydrologic Extremes in a Changing Climate

Fri - 02 Aug | MR329

Time 08:30-10:30

Chair(s) Rajib MAITY, *Indian Institute of Technology Kharagpur*
C. T. DHANYA, *Indian Institute of Technology Delhi*

HS10-D5-AM1-329-001 | HS10-A003

Modeling Spatiotemporal Dynamics of Drought in the Gauged and Ungauged Basins Under Climate Change

Getachew TEGEGNE DAMTEW[1#+], Young-Oh KIM[1], Gi Joo KIM[1], Hee Won JEE[1], Daeho KIM[1]
[1]*Seoul National University*

HS10-D5-AM1-329-002 | HS10-A004

Future Projection of Extreme Rainfall over Kolkata City

Ujjwal SAHA[1#+]
[1]*Indian Institute of Engineering Science and Technology, Shibpur*

HS10-D5-AM1-329-003 | HS10-A013

Observed Change in Spatio-temporal Distribution of Global Probable Maximum Precipitation in a Changing Climate

Subharthi SARKAR[1+], Rajib MAITY[1#]
[1]*Indian Institute of Technology Kharagpur*

HS10-D5-AM1-329-004 | HS10-A020

Simulation and Assessment of Return Flows Across Canal Systems in the Upper Yamuna River Basin Using the WEAP Model

Dinesh KUMAR[1+], C. T. DHANYA[1#], Saman RAZAVI[2], Ashvani GOSAIN[1]
[1]*Indian Institute of Technology Delhi,* [2]*University of Saskatchewan*

HS10-D5-AM1-329-005 | HS10-A019

A Sub-grid Based Large Scale Flood Inundation Modeling and its Application in Chennai Basin, India

Nithila DEVI N.[1], Soumendra Nath KUIRY[1#+]
[1]*Indian Institute of Technology Madras*

HS10-D5-AM1-329-006 | HS10-A021

Anthropogenic Impact on Drought and Poor Harvests in Afghanistan in 2017/18
Weili DUAN[1#+], Shan ZOU[1], Naota HANASAKI[2], Hideo SHIOGAMA[2], Yaning CHEN[3], Zhi LI[1], Gonghuan FANG[1]
[1]Chinese Academy of Sciences, [2]National Institute for Environmental Studies, [3]Xinjiang Institute of Ecology and Geography, Chinese Academy of Sciences

HS10-D5-AM1-329-007 | HS10-A024

A Study on Nonstationarity of Flood Peak Time Series in Yalong River, China
Jie GAO[1#+], Long YANG[2]
[1]China Renewable Energy Engineering Institute, [2]Nanjing University

HS10-D5-AM1-329-008 | HS10-A025

GIS-based Storm Surge Modelling for the Pearl River Delta Region, China
Wei JIAN[1#+], Edmond LO[1], Tso-Chien PAN[1]
[1]Nanyang Technological University

HS15 / Land and Water Management for Sustainability

Fri - 02 Aug | MR328

Time 08:30-10:30

Chair(s) Shailesh SINGH, *National Institute of Water and Atmospheric Research*
Jun NIU, *China Agricultural University*

HS15-D5-AM1-328-001 | HS15-A008

Water-energy-food Nexus and the Role of Large Dams
Bellie SIVAKUMAR[1,2#+], Ji CHEN[3], Haiyun SHI[4]
[1]University of New South Wales, [2]Indian Institute of Technology Bombay, [3]The University of Hong Kong, [4]Southern University of Science and Technology

HS15-D5-AM1-328-002 | HS15-A003

Sustainability of Agricultural Water Use over an Inland River Basin in Northwest China
Yue DONG[1], Jun NIU[1+], Shaozhong KANG[1#]
[1]China Agricultural University

HS15-D5-AM1-328-003 | HS15-A001

Reassessment of Reservoir Sedimentation Rates Under Monsoon Climate with Combined Optical and Microwave Remote Sensing
Joy SANYAL[1#+]
[1]Tokyo Institute of Technology

HS15-D5-AM1-328-004 | HS15-A005

An Assessment of Irrigation and Hydropower Impacts in the Tonle Sap Basin
Thomas COCHRANE[1#+], Mike ARNAIZ[1], Chantha OEURNG[2]
[1]University of Canterbury, [2]Cambodia Institute of Technology

HS15-D5-AM1-328-005 | HS15-A009

Estimation of South-west Monsoonal Surface Runoff by Using SCS-CN Method for an Ungauged Watershed in Kodagu, India
Rishudh THAKUR[1+], Dillip Kumar BARIK[1#]
[1]Vellore Institute of Technology

HS15-D5-AM1-328-006 | HS15-A012

Satellite Evidence for Carbon and Water Consequences of the 'Grain for Green' Program in Chinese Loess Plateau
Fubo ZHAO[1#+], Yiping WU[1]
[1]Xi'an Jiaotong University

HS15-D5-AM1-328-007 | HS15-A015

Transition Characteristics from Warm-dry to Warm-wet and Vegetation Dynamic Responses in the Southeastern Part of the Qinghai-Tibet Plateau
Ruotong WANG[1+], Liu LIU[1#], Jingxia HENG[1], Zongxue XU[2], Qiankun NIU[1]
[1]China Agricultural University, [2]Beijing Normal University

HS15-D5-AM1-328-008 | HS15-A006

Characterising Flow Pathways Across the Landscape to Characterise the Linkages Between Land and Water Quality Impacts
Shailesh SINGH[1#+], M S , SRINIVASAN[1], Richard MUIRHEAD[2], Roland STENGER[3], Murray CLOSE[4], Andrew MANDERSON[5], Ross Monaghan MONAGHAN[2], Les BASHER[5], Diana SELBIE[2], Chris TANNER[1]
[1]National Institute of Water and Atmospheric Research, [2]AgResearch Ltd., [3]Lincoln Agritech, [4]Environmental Sciences and Research Ltd., [5]Landcare Research

PS10 / Aeronomy and Plasma Physics of Planetary Environments

Fri - 02 Aug | MR310

Time 08:30-10:30

Chair(s) Robert LILLIS, *University of California, Berkeley*
Pierre HENRI, *CNRS*

PS10-D5-AM1-310-001 | PS10-A013

Mars Seen by MAVEN: Magnetosphere or Induced Magnetosphere?
Janet LUHMANN[1#+], Jasper HALEKAS[2], Jared ESPLEY[3], Mehdi BENNA[3], David MITCHELL[1], Chaunfei DONG[4], Y.J. MA[5], Shannon CURRY[1], Shaosui XU[1], Patrick DUNN[1], Suranga RUHUNUSIRI[2], Gina DI BRACCIO[3], David A. BRAIN[6], Bruce JAKOSKY[6]
[1]University of California, Berkeley, [2]The University of Iowa, [3]NASA Goddard Space Flight Center, [4]Princeton Plasma Physics Laboratory, [5]University of California, Los Angeles, [6]University of Colorado Boulder

PS10-D5-AM1-310-002 | PS10-A006 (Invited)

Global Simulations of Magnetic Reconnection in the Martian Magnetotail: A Two-way Coupled Magnetohydrodynamics with Embedded Particle-in-cell Model
Y.J. MA[1#+], Chris RUSSELL[1], Gabor TOTH[2], Yuxi CHEN[2], Andrew NAGY[2], Yuki HARADA[3], Bruce JAKOSKY[4]
[1]University of California, Los Angeles, [2]University of Michigan, [3]Kyoto University, [4]University of Colorado Boulder

PS10-D5-AM1-310-003 | PS10-A024

The Martian Hydrogen Corona as Inferred from Measured He+/He+2 Ratios in the Solar Wind Near Mars
Charles LUE[1#+], Hans NILSSON[1], Jasper HALEKAS[2], Mats HOLMSTRÖM[1]
[1]Swedish Institute of Space Physics, [2]The University of Iowa

PS10-D5-AM1-310-004 | PS10-A012

A Statistical Study of Flux Ropes in the Martian Ionosphere
Jiapeng GUO[1#+]
[1]Sun Yat-sen University

PS10-D5-AM1-310-005 | PS10-A018

Seasonal Changes in the Polar Ionosphere and Thermosphere on Mars
Marcin PILINSKI[1#+], Laila ANDERSSON[1], Christopher FOWLER[2], Ed THIEMANN[1]
[1]University of Colorado Boulder, [2]University of California, Berkeley

PS10-D5-AM1-310-006 | PS10-A009

Evaluating Local Ionization Balance in the Nightside Martian Upper Atmosphere During Maven Deep Dip Campaigns
Jun CUI[1,2#+], Xiaoshu WU[2], Roger YELLE[3], Shaosui XU[4], Niklas EDBERG[5], Eric VIGREN[5]
[1]Sun Yat-sen University, [2]Chinese Academy of Sciences, [3]The University of Arizona, [4]University of California, Berkeley, [5]Swedish Institute of Space Physics

PS10-D5-AM1-310-007 | PS10-A019 (Invited)

Insight and MAVEN: A First Comparison Between Magnetic Field Measurements from the Surface of Mars and from Orbit
Matthew FILLINGIM[1#+], Christopher RUSSELL[2], Steven JOY[2], Peter CHI[2], Yanan YU[2], Catherine JOHNSON[3], Anna MITTELHOLZ[3], Benoit LANGLAIS[4], Janet LUHMANN[1], Jared ESPLEY[5], Jasper HALEKAS[6], Bruce BANERDT[7], Bruce JAKOSKY[8]
[1]University of California, Berkeley, [2]University of California, Los Angeles, [3]University of British Columbia, [4]University of Nantes, [5]NASA Goddard Space Flight Center, [6]The University of Iowa, [7]Jet Propulsion Laboratory, [8]University of Colorado Boulder

AS04 / Madden-Julian Oscillation and Its Global Impacts

Fri - 02 Aug | MR311

Time 08:30-10:30
Chair(s) Ziniu XIAO, *Chinese Academy of Sciences*
Wen ZHOU, *City University of Hong Kong*

AS04-D5-AM1-311-001 | AS04-A008

What Determines Propagation Speed of the Madden-julian Oscillation?
Guosen CHEN[1#+], Bin WANG[2]
[1]Nanjing University of Information Science & Technology, [2]University of Hawaii

AS04-D5-AM1-311-002 | AS04-A011

Why Do Atmosphere-ocean Interactions Improve Predictions of the Madden-Julian Oscillation?
Nicholas KLINGAMAN[1,2#+], Charlotte DEMOTT[3]
[1]National Centre for Atmospheric Science, [2]University of Reading, [3]Colorado State University

AS04-D5-AM1-311-003 | AS04-A009

Dynamics for the MJO Eastward Propagation
Lu WANG[1#+]
[1]Nanjing University of Information Science & Technology

AS04-D5-AM1-311-004 | AS04-A015

A Variable-resolution Route to the MJO in GFDL FVGFS
Lucas HARRIS[1#+], Kun GAO[2], Baoqiang XIANG[3], Shannon REES[4]
[1]National Oceanic and Atmospheric Administration, [2]Princeton University, [3]University Corporation for Atmospheric Research/Geophysical Fluid Dynamics Laboratory, [4]National Center for Atmospheric Research/ Geophysical Fluid Dynamics Laboratory

AS04-D5-AM1-311-005 | AS04-A006

A Case Study of the Impact of Interactions Between Tropical and Mid-latitude Intraseasonal Oscillations Around the Tibetan Plateau on the Extreme Yangtze Floods
Jiangyu MAO[1#+], Jianying LI[2]
[1]Institute of Atmospheric Physics, Chinese Academy of Sciences, [2]China University of Geosciences

AS04-D5-AM1-311-006 | AS04-A007

Intraseasonal Variability of the Summer Monsoon Rainfall over the Lower Reach of the Yangtze River Basin
Ouyang YU[1#+]
[1]Nanjing University of Information Science & Technology

OS01 / The Southern Ocean and Polar Regions and Their Roles in Climate

Fri - 02 Aug | MR327

Time 08:30-10:30
Chair(s) Robin ROBERTSON, *Xiamen University Malaysia*

OS01-D5-AM1-327-001 | OS01-A005

Understanding the Uncertainty in the 21st Century Dynamic Sea Level Projections: The Role of the AMOC
Changlin CHEN[1#+], Wei LIU[2]
[1]Fudan University, [2]University of California, Riverside

OS01-D5-AM1-327-002 | OS01-A003

What Caused the Remarkable February 2018 North Greenland Polynya?
Kent MOORE[1#+], Axel SCHWEIGER[2], Jinlun ZHANG[2], M. STEELE[2]
[1]University of Toronto Mississauga, [2]University of Washington

OS01-D5-AM1-327-003 | OS01-A001

Predictability of Wintertime Storm Tracks and Surface Climate over Eurasia from Arctic Sea Ice Anomalies in the Period 1979-2017
Pawel SCHLICHTHOLZ[1#+]
[1]Institute of Oceanology of the Polish Academy of Sciences

OS01-D5-AM1-327-004 | OS01-A004

Effects of Ocean Slow Response Under Low Warming Targets
Shang-Min LONG[1#+], Shang-Ping XIE[2], Yan DU[3], Qinyu LIU[4], Gang HUANG[3], Xiao-Tong ZHENG[4], Kaiming HU[3]
[1]Hohai University, [2]University of California San Diego, [3]Chinese Academy of Sciences, [4]Ocean University of China

OS01-D5-AM1-327-005 | OS01-A002

Future Observations of the Changing Southern Ocean
Robin ROBERTSON[1#+], Andrew CONSTABLE[2]
[1]Xiamen University Malaysia, [2]Australian Antarctic Division

OS01-D5-AM1-327-006 | OS01-A009

Variations of Antarctic Ocean Gyres Observed in the Time-variable Gravity of GRACE Satellite
Chunchun GAO[1,2], Benjamin Fong CHAO[1#+]
[1]Academia Sinica, [2]Nanyang Normal University

OS01-D5-AM1-327-007 | OS01-A006

Evidence for Link Between Modelled Trends in Antarctic Sea Ice and Underestimated Westerly Wind Changes
Wenju CAI[1,2#+], Ariaan PURICH[3]
[1]*Ocean University of China and Qingdao National Laboratory for Marine Science and Technology,* [2]*Commonwealth Scientific and Industrial Research Organisation,* [3]*University of New South Wales*

AS40 / Precipitation Science and Application of Satellite Data

Fri - 02 Aug | MR302

Time 08:30-10:30
Chair(s) Takuji KUBOTA, *Japan Aerospace Exploration Agency*
Shoichi SHIGE, *Kyoto University*

AS40-D5-AM1-302-001 | AS40-A021 (Invited)

Status and Plans for in the U.S. GPM Project
George HUFFMAN[1#+], Scott BRAUN[1]
[1]*NASA Goddard Space Flight Center*

AS40-D5-AM1-302-002 | AS40-A010

Early Results for Version 06 IMERG
George HUFFMAN[1#+], Jackson TAN[2], David BOLVIN[3], Eric NELKIN[3]
[1]*NASA Goddard Space Flight Center,* [2]*Universities Space Research Association,* [3]*Science Systems and Applications, Inc.*

AS40-D5-AM1-302-003 | AS40-A023

Five-year Outcomes of the Global Precipitation Measurement Mission for Precipitation Sciences in Japan
Yukari TAKAYABU[1#+], Takuji KUBOTA[2], Toshio IGUCHI[3], Shinta SETO[4], Jun AWAKA[5], Atsushi HAMADA[6], Chie YOKOYAMA[1], Kaya KANEMARU[1], Shoichi SHIGE[7], Moeka YAMAJI[2], Kenji NAKAMURA[8], Riko OKI[2]
[1]*The University of Tokyo,* [2]*Japan Aerospace Exploration Agency,* [3]*National Institute of Information and Communications Technology,* [4]*Nagasaki University,* [5]*Tokai University,* [6]*Graduate School of Science and Engineering, University of Toyama,* [7]*Kyoto University,* [8]*Dokkyo University*

AS40-D5-AM1-302-004 | AS40-A003

Recent Results of the Global Precipitation Measurement (GPM) Mission in Japan
Takuji KUBOTA[1#+], Riko OKI[1], Moeka YAMAJI[1], Yuki KANEKO[1], Toshio IGUCHI[2], Nobuhiro TAKAHASHI[3], Yukari TAKAYABU[4]
[1]*Japan Aerospace Exploration Agency,* [2]*National Institute of Information and Communications Technology,* [3]*Nagoya University,* [4]*The University of Tokyo*

AS40-D5-AM1-302-005 | AS40-A005

Enhancing Data Assimilation of GPM Observations: Past 6 Years and Future Plans
Takemasa MIYOSHI[1,2#+], Shunji KOTSUKI[3], Koji TERASAKI[3], Kenta KUROSAWA[3], Shigenori OTSUKA[1], Kaya KANEMARU[4], Hisashi YASHIRO[3], Masaki SATOH[4], Hirofumi TOMITA[3], Kozo OKAMOTO[5], Eugenia KALNAY[2]
[1]*RIKEN Center for Computational Science,* [2]*University of Maryland,* [3]*RIKEN Advanced Institute for Computational Science,* [4]*The University of Tokyo,* [5]*Japan Meteorological Agency*

AS40-D5-AM1-302-006 | AS40-A006

Evaluation of GPM IMERG Estimates Considering Spatial Sampling Errors Due to the Gauge Network Configuration: A Case Study over a Tropical Urban Region
Pradeep MANDAPAKA[1#+], Edmond LO[1]
[1]*Nanyang Technological University*

AS40-D5-AM1-302-007 | AS40-A001

Adjustment of Radar–gauge Rainfall Discrepancy Due to Raindrop Drift and Evaporation Using the Weather Research and Forecasting (WRF) Model
Qiang DAI[1#+], Qiqi YANG[1], Dawei HAN[2]
[1]*Nanjing Normal University,* [2]*Bristol University*

AS13 / Passive and Active Sensing of the Chemistry and Dynamics of the Middle and Upper Atmosphere

Fri - 02 Aug | MR301

Time 08:30-10:30
Chair(s) Iain REID, *ATRAD Pty Ltd*
Jeng-Hwa YEE, *The Johns Hopkins University Applied Physics Laboratory*

AS13-D5-AM1-301-001 | AS13-A006

Climatology of Mesopause Density Using a Global Distribution of Meteor Radars
Wen YI[1+], Xianghui XUE[1#], Iain REID[2,3], Damian MURPHY[4], Chris HALL[5], Masaki TSUTSUMI[6], Baiqi NING[7], Guozhu LI[7], Robert VINCENT[3], Jinsong CHEN[8], Tingdi CHEN[1]
[1]*University of Science and Technology of China,* [2]*ATRAD Pty Ltd,* [3]*University of Adelaide,* [4]*Australian Antarctic Division,* [5]*University of Tromsoe,* [6]*National Institute of Polar Research,* [7]*Chinese Academy of Sciences,* [8]*China Research Institute of Radiowave Propagation*

AS13-D5-AM1-301-002 | AS13-A005 (Invited)

Long Term Variations in Vertical Velocities in the Southern Hemisphere Summer MLT
Robert VINCENT[1#+], Sujata KOVALAM[1], Damian MURPHY[2], Iain REID[1,3], Joel YOUNGER[1,3]
[1]*University of Adelaide,* [2]*Australian Antarctic Division,* [3]*ATRAD Pty Ltd*

AS13-D5-AM1-301-003 | AS13-A019 (Invited)

Interhemispheric Coupling Study by Observations and Modelling (ICSOM)
Kaoru SATO[1#+]
[1]*The University of Tokyo*

AS13-D5-AM1-301-004 | AS13-A004

Impact of Medium-energy Electron Precipitation on Ozone and Middle Atmosphere Dynamics in WACCM Simulations
Yvan ORSOLINI[1#+], Sigmund GUTTU[2], Frode STORDAL[2], Varavut LIMPASUVAN[3]
[1]*Norwegian Institute of Air Research,* [2]*University of Oslo,* [3]*Coastal Carolina University*

AS13-D5-AM1-301-005 | AS13-A016

Semidiurnal Tidal Perturbations During SSW in SuperDARN and WACCM-X
Varavut LIMPASUVAN[1#+], Yvan ORSOLINI[2], Patrick ESPY[3,4], Robert HIBBINS[3,4], Jiarong ZHANG[1]
[1]*Coastal Carolina University,* [2]*Norwegian Institute of Air Research,* [3]*Norwegian University of Science and Technology,* [4]*University of Bergen*

AS13-D5-AM1-301-006 | AS13-A008 (Invited)

Investigation of Photochemistry on the Bottom Side of the Mesospheric Na Layer by Na Lidar
Tao YUAN[1#+]
[1]*Utah State University*

AS13-D5-AM1-301-007 | AS13-A014

Study the Volume Emission Rates Emitted from O2(0-1) and O(1S) Nightglow by GBAII
Yuanhe TANG[1#+]
[1]*Xi'an University of Technology*

BG11 / Biogeosciences General Session

Fri - 02 Aug | MR300

Time 08:30-10:30
Chair(s) Prabir K. PATRA, *Japan Agency for Marine-Earth Science and Technology*
Long CAO, *Zhejiang University*

BG11-D5-AM1-300-001 | BG11-A001

Plant Response to Climate Change in the Permafrost Peatlands of Great Hing'an Mountain, Northeast China
Xianwei WANG[1#+]
[1]*Chinese Academy of Sciences*

BG11-D5-AM1-300-002 | BG11-A018

An Observational and Modeling Study of the Radiation Transfer in Forest Canopy in Huainan, China
Qiudan DAI[1#+]
[1]*Institute of Atmospheric Physics, Chinese Academy of Sciences*

BG11-D5-AM1-300-003 | BG11-A016

Soil Organic Carbon and Soil Aggregation Enhancement from Vermicompost Management Enriched with Biofertilizers
Gilbert HINGE[1#+], Pulendra DUTTA[1], Arup Kumar SARMA[1]
[1]*Indian Institute of Technology Guwahati*

BG11-D5-AM1-300-004 | BG11-A019

Multipartite and Synergistic Microbial Mechanisms Controlling Sub-surface Arsenic (As) Release in Aquifers of Bengal Basin, India: A Geomicrobiological Investigation
Balaram MOHAPATRA[1+], Anumeha SAHA[1], Pinaki SAR[1#]
[1]*Indian Institute of Technology Kharagpur*

BG11-D5-AM1-300-005 | BG11-A022

Paleothermocline Reconstruction Based on Planktonic Foraminifera of Halang Formation in Banyumas, Cantral Java, Indonesia
Winda EKA MANDIRI PUTERI[1#+], Anisa Ulfatu HASANAH[1,2], Lia JURNALIAH[2], Marfasran HENDRIZAN[3,4]
[1]*Institute of Technology Bandung,* [2]*padjadjaran university,* [3]*Indonesian Institute of Sciences,* [4]*Kiel University*

BG11-D5-AM1-300-006 | BG11-A004

Tethyan Larger Benthic Foraminifera from Eastern Tethys, Meghalaya, India and Their Paleobiogeographic Implications
Vinod TEWARI[1#+]
[1]*Sikkim University*

BG11-D5-AM1-300-007 | BG11-A014

A Modeling Study on Summertime Oxygen Deficit in the Bohai Sea of China
Haiyan ZHANG[1#+], Simeng QIAN[1], Hao WEI[1], Liang ZHAO[2]
[1]*Tianjin University,* [2]*Tianjin University of Science and Technology*

ST25 / Turbulence and Particle Energization in Space, Astrophysical and Laboratory Plasmas

Fri - 02 Aug | MR309

Time 08:30-10:30
Chair(s) Fouad SAHRAOUI, *Plasma Physics Laboratory*

ST25-D5-AM1-309-001 | ST25-A001 (Invited)

Understanding Electron-scale Electric Field Fluctuations in Solar Wind Kinetic Turbulence: Artemis Observations
Chadi SALEM[1#+], John BONNELL[1], Elizabeth HANSON[1], Christopher CHASTON[1,2], Kristopher KLEIN[3], Luca FRANCI[4], Daniel VERSCHAREN[5]
[1]*University of California, Berkeley,* [2]*University of Sydney,* [3]*The University of Arizona,* [4]*Queen Mary College,* [5]*University College London*

ST25-D5-AM1-309-002 | ST25-A004

Diffusion Range and Dissipation Spectrum of Kinetic Alfvenic Turbulence
Jiansen HE[1#+], Xingyu ZHU[1], Die DUAN[1], Daniel VERSCHAREN[2]
[1]*Peking University,* [2]*University College London*

ST25-D5-AM1-309-003 | ST25-A014 (Invited)

MMS Observation of Anisotropic Particle Distributions in an Alfvén Vortex
Tieyan WANG[1#+], Olga ALEXANDROVA[2], Denise PERRONE[3], Malcolm DUNLOP[1,4], Xiangcheng DONG[4], Robert BINGHAM[1], Yuri KHOTYAINTSEV[5], Chris RUSSELL[6], Barbara GILES[7], Roy B. TORBERT[8,9], Robert ERGUN[10], James BURCH[9]
[1]*Rutherford Appleton Laboratory,* [2]*Observatoire de Paris,* [3]*Imperial College London,* [4]*Beihang University,* [5]*Swedish Institute of Space Physics,* [6]*University of California, Los Angeles,* [7]*NASA Goddard Space Flight Center,* [8]*University of New Hampshire,* [9]*Southwest Research Institute,* [10]*University of Colorado Boulder*

ST25-D5-AM1-309-004 | ST25-A006

Testing of the Taylor Frozen-in-flow Hypothesis at Electron Scales in the Solar Wind Turbulence
Shiyong HUANG[1#+], Fouad SAHRAOUI[2]
[1]*Wuhan University,* [2]*Plasma Physics Laboratory*

ST25-D5-AM1-309-005 | ST25-A002

Composition of Wave Modes in Magnetosheath Turbulence from Sub-ion to Sub-electron Scales
Xingyu ZHU[1+], Jiansen HE[1#], Daniel VERSCHAREN[2], Jinsong ZHAO[3]
[1]*Peking University,* [2]*University College London,* [3]*Chinese Academy of Sciences*

ST25-D5-AM1-309-006 | ST25-A013

The Non-resonant and Resonant Instability of Kinetic Alfven Wave in the Electron Beam-return Current System and Applications to Some Processes in Solar Flare and Earth's Aurora
Ling CHEN[1#+], Liang XIANG[1]
[1]*Chinese Academy of Sciences*

ST25-D5-AM1-309-007 | ST25-A018

Downstream Structures and Ion Dynamics at a Rippled Quasi-parallel Shock: 2-D Hybrid Simulations
Yufei HAO[1#+], Quanming LU[2], De-Jin WU[1], Xinliang GAO[2]
[1]*Chinese Academy of Sciences,* [2]*University of Science and Technology of China*

IG15 / Data-driven Modeling in Geoscience

Fri - 02 Aug | MR323

Time 08:30-10:30

Chair(s) Shunichi NOMURA, *The Institute of Statistical Mathematics*
Ryoichiro AGATA, *Japan Agency for Marine-Earth Science and Technology*

IG15-D5-AM1-323-001 | IG15-A014 (Invited)

Adaptive Estimation of the Observation-error Covariance and its Application to Particle Filtering
Genta UENO[1#+]
[1]The Institute of Statistical Mathematics

IG15-D5-AM1-323-002 | IG15-A005

Data-driven Stochastic Parameterization of Multi-scale Flow Interactions in Ocean Models
Dmitri KONDRASHOV[1#+]
[1]University of California, Los Angeles

IG15-D5-AM1-323-003 | IG15-A016

Bias Correction for the Distribution of Aftershocks Within Short-term Period Immediately After Large Main Shock
Kosuke MORIKAWA[1#+], Hiromichi NAGAO[2], Shin-ichi ITO[2], Shin'ichi SAKAI[2], Naoshi HIRATA[2]
[1]Osaka University, [2]The University of Tokyo

IG15-D5-AM1-323-004 | IG15-A008

Decomposition of Multiple Seasonal Components in a Seasonal Adjustment Model
Tomoya HABA[1], Hiromichi NAGAO[1#+], Shin-ichi ITO[1]
[1]The University of Tokyo

IG15-D5-AM1-323-005 | IG15-A009 (Invited)

Illuminating the Mechanical Properties of the Central Chile Subduction Zone Using Space Geodetic Observations
Qiang QIU[1#+], Sylvain BARBOT[2], Jonathan WEISS[3], Tim J WRIGHT[3], James FOSTER[4], Alexander SAUNDERS[3], Michael G BEVIS[5], Robert SMALLEY JR[6], Luis Eduardo LENZANO[7], Jorge BARON[8], Juan Carlos BAEZ SR[9], Arturo ECHALAR[10], Jon AVERY[11]
[1]University of Southern California, [2]Nanyang Technological University, [3]University of Leeds, [4]University of Hawaii at Manoa, [5]The Ohio State University, [6]University of Memphis, [7]El Instituto Argentino de Nivología, Glaciología y Ciencias Ambientales Mendoza, [8]Universidad Nacional de Cuyo, [9]University of Chile Santiago, [10]Instituto Geográfico Militar La Paz , [11]University of Hawaii

IG15-D5-AM1-323-006 | IG15-A015

Statistical Distribution of Natural Times: A New View of Earthquake Hazard Assessment
Sumanta PASARI[1#+]
[1]BITS Pilani

IG15-D5-AM1-323-007 | IG15-A007

A Study of the Relation Between the Occurrence of Large Earthquakes and Time-dependent Decrease in B Value
Kazuyoshi NANJO[1#+], Masao NAKATANI[2], Shunichi NOMURA[3], Toshiyasu NAGAO[4]
[1]University of Shizuoka, [2]The University of Tokyo, [3]The Institute of Statistical Mathematics, [4]Tokai University

ST33 / Ionospheric Weather Induced by Solar and Terrestrial Activities

Fri - 02 Aug | MR308

Time 11:00-12:30

Chair(s) Tzu-Wei FANG, *University of Colorado Boulder*
Nicola GENZANO, *University of Basilicata*

ST33-D5-AM2-308-001 | ST33-A004 (Invited)

Model Simulation of Storm-time Equatorial Electrodynamics Using First-principle Models
Tzu-Wei FANG[1#+], Tim FULLER-ROWELL[1], Daniel WELLING[2], Mariangel FEDRIZZI[1]
[1]University of Colorado Boulder, [2]The University of Texas at Arlington,

ST33-D5-AM2-308-002 | ST33-A003

Enhanced Dynamo E Field to Modify Ionosphere Before Large Earthquake
Koichiro OYAMA[1,2#+]
[1]National Cheng Kung University, [2]Asia Space Environment Research Consortium

ST33-D5-AM2-308-003 | ST33-A009 (Invited)

A Brief Introduction on CSES Mission and its Preliminary Results
Qiao WANG[1#+], Xuhui SHEN[1], Zhima ZEREN[1], Yanyan YANG[1], Rui YAN[1], Jian-Pingq HUANG[1]
[1]China Earthquake Administration

ST33-D5-AM2-308-004 | ST33-A006

Statistical Correlation Analysis Between Large Earthquakes (M≥6) Occurred in Indonesia and Significant TIR Anomalies Highlight Using RST Methodology on HIMAWARI-8/AHI TIR Data
Nicola GENZANO[1#+], Valerio TRAMUTOLI[1], Roberto COLONNA[1], Carolina FILIZZOLA[2], Mariano LISI[1], Nicola PERGOLA[2]
[1]University of Basilicata, [2]National Research Council

ST33-D5-AM2-308-005 | ST33-A008

Statistical Analysis and Assessment of Pre-seismic Ionospheric Electron Density Anomalies Using Ionosonde Data During 1958-2017, Over Japan
Katsumi HATTORI[1#+], Sanaka SAITO[1], Chie YOSHINO[1], Peng HAN[2]
[1]Chiba University, [2]Southern University of Science and Technology

SE28 / Advances in Fiber-optic Technologies for Geophysical Applications

Fri - 02 Aug | Nicoll 2

Time 11:00-12:30

Chair(s) Philippe JOUSSET, *GFZ German Research Centre for Geosciences*
Benoit TAISNE, *Nanyang Technological University*

SE28-D5-AM2-Nicoll 2-001 | SE28-A005

Fibre-optic Distributed Strain Sensing: Dense Monitoring of Ground Motion
Philippe JOUSSET[1,2#+], Thomas REINSCH[1], Trond RYBERG[1], Hanna BLANCK[3], Andy CLARKE[4], Rufat AGHAYEV[4], Gylfi HERSIR[3], Michael WEBER[1,5], Charlotte M. KRAWCZYK[1,6]
[1]GFZ German Research Centre for Geosciences, [2]Bureau of Geological and Mining Research, [3]ÍSOR Iceland Geosurvey, [4]Silixa Ltd., [5]University of Potsdam, [6]Technical University of Berlin

SE28-D5-AM2-Nicoll 2-002 | SE28-A001 (Invited)

The Potential of Distributed Acoustic Sensing in Teleseismic Studies: Insights from the Goldstone Experiment
Chunquan YU[1#+], Zhongwen ZHAN[2], Nathaniel J. LINDSEY[3,4], Jonathan B. AJO-FRANKLIN[4], Michelle ROBERTSON[4]
[1]Southern University of Science and Technology, [2]California Institute of Technology, [3]University of California, Berkeley, [4]Lawrence Berkeley National Laboratory

SE28-D5-AM2-Nicoll 2-003 | SE28-A004

Near-surface Velocity Change Monitoring in Urban Environments with DAS and Quarry Blasts
Gang FANG[1+], Yunyue LI[1#], Yumin ZHAO[1], Xuan FENG[2], Diming YU[3]
[1]National University of Singapore, [2]Jilin University, [3]Cambridge Sensing Pte. Ltd.

SE28-D5-AM2-Nicoll 2-004 | SE28-A002 (Invited)

Extracting Geotechnical Information in an Urban Environment Using Distributed Acoustic Sensing and a Free-floating Fiber-optic Cable
Zack SPICA[1#+], Eileen MARTIN[2], Biondo BIONDI[3], Greogory BEROZA[3]
[1]The University of Tokyo, [2]Virginia Tech, [3]Stanford University

SE28-D5-AM2-Nicoll 2-005 | SE28-A003

A Velocity-based Earthquake Detection System Using Downhole DAS Data
Biondo BIONDI[1#+], Ariel LELLOUCH[1], Siyuan YUAN[1], Zack SPICA[1], William ELLSWORTH[1]
[1]Stanford University

SE28-D5-AM2-Nicoll 2-006 | SE28-A006

Volcanic and Seismic Hazards Assessment Using Distributed Strain Sensing Optical Fibres
Philippe JOUSSET[1,2#+], Gilda CURRENTI[3], Frederik TILMANN[1,4], Luciano ZUCCARRELO[3,5], Athena CHALARI[6], Thomas REINSCH[1], Charlotte M. KRAWCZYK[1,7]
[1]GFZ German Research Centre for Geosciences, [2]Bureau of Geological and Mining Research, [3]National Institute of Geophysics and Volcanology, [4]Free University of Berlin, [5]University of Granada, [6]Silixa Ltd., [7]Technical University of Berlin

ST12 / Wave-particle Interactions in the Magnetosphere

Fri - 02 Aug | MR304

Time 11:00-12:30
Chair(s) Yuto KATOH, *Tohoku University*

ST12-D5-AM2-304-001 | ST12-A002 (Invited)

Multipoint Observations of Energetic Particle Injections and Their Effect on Chorus Wave Activity in the Inner Magnetosphere
Drew TURNER[1#+], Geoffrey REEVES[2], Christine GABRIELSE[3], Ian COHEN[4], Joseph FENNELL[1], Trevor LEONARD[5], Matthew ARGALL[6], Yoshizumi MIYOSHI[7]
[1]The Aerospace Corporation, [2]Los Alamos National Laboratory, [3]University of California, Los Angeles, [4]The Johns Hopkins University Applied Physics Laboratory, [5]University of Colorado Boulder, [6]University of New Hampshire, [7]Nagoya University

ST12-D5-AM2-304-002 | ST12-A011 (Invited)

A Model Study of Correlated Electron Bursts and Whistler Chorus Emission in the Earth's Radiation Belts
David SCHRIVER[1#+], Nicole ECHTERLING[1], James ROEDER[2], Joseph FENNELL[2]
[1]University of California, Los Angeles, [2]The Aerospace Corporation

ST12-D5-AM2-304-003 | ST12-A004 (Invited)

Nonlinear Dynamics of Electrons in Excitation of Whistler Waves with Adiabatic and Non-adiabatic Frequency Chirping
Xin TAO[1#+], Yifan WU[1], Fulvio ZONCA[2], Liu CHEN[3]
[1]University of Science and Technology of China, [2]Italian National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA), [3]Zhejiang University

ST12-D5-AM2-304-004 | ST12-A009 (Invited)

Spatial Distribution of Fine-structured and Unstructured EMIC Waves Observed by the Arase Satellite
Shoya MATSUDA[1#+], Yoshiya KASAHARA[2], Yoshizumi MIYOSHI[3], Reiko NOMURA[4], Masafumi SHOJI[3], Ayako MATSUOKA[1], Yasumasa KASABA[5], Satoshi KURITA[3], Mariko TERAMOTO[3], Keigo ISHISAKA[6]
[1]Japan Aerospace Exploration Agency, [2]Kanazawa University, [3]Nagoya University, [4]National Astronomical Observatory of Japan, [5]Tohoku University, [6]Toyama Prefectural University

ST12-D5-AM2-304-005 | ST12-A003 (Invited)

High-frequency Thermal Fluctuations and Instabilities in the Radiation Belt Environment
Junga HWANG[1#+], Peter H. YOON[2]
[1]Korea Astronomy and Space Science Institute, [2]University of Maryland

AS33 / The Multi-scale Effects of Topography on Monsoons

Fri - 02 Aug | MR303

Time 11:00-12:30
Chair(s) Anmin DUAN, *Chinese Academy of Sciences*

AS33-D5-AM2-303-001 | AS33-A010 (Invited)

Influence of Synoptic Pattern and Low-level Wind Speed on Diurnal Variations of Orographic Convection in Summer over Pearl River Delta, South China
Kun ZHAO[1#+], Xiaona RAO[1]
[1]Nanjing University

AS33-D5-AM2-303-002 | AS33-A007

Diurnal Variation of Summer Precipitation Across the Central Tian Shan Mountains
Jian LI[1#+]
[1]Chinese Academy of Meteorological Sciences

AS33-D5-AM2-303-003 | AS33-A012

Diurnal Variations of Winds and Rainfall Response to Large-scale Circulation During a Heavy Rainfall Event over East Asia
Wenxin ZENG[1+], Guixing CHEN[1#]
[1]Sun Yat-sen University

AS33-D5-AM2-303-004 | AS33-A002

Spatiotemporal Variations of Hourly Rainfall in Warm Season of Central North China
Weihua YUAN[1#+]
[1]Chinese Academy of Sciences

AS33-D5-AM2-303-005 | AS33-A014

Impact of Increasing Horizontal Resolution on the Simulated Diurnal Cycle of Rainfall in a Global Multiscale Modeling Framework

Yi ZHANG[1#+], Haoming CHEN[1], Dan WANG[2]

[1]Chinese Academy of Meteorological Sciences, [2]China Meteorological Administration

HS33 / Hydrometeorological Applications and Hydrologic Prediction: Severe Weather Precipitation Detection, Estimation, and Forecast

Fri - 02 Aug | MR330

Time 11:00-12:30

Chair(s) Jie CAO, *Chinese Academy of Sciences*

HS33-D5-AM2-330-001 | HS33-A008 (Invited)

Estimating the Occurrence Time of Slope Failure Using Water Stage Data

Yoshiyuki YOKOO[1#+]

[1]Fukushima University

HS33-D5-AM2-330-002 | HS33-A001 (Invited)

Evaluating Accuracy of Rainfall Forecast Data in Train Operation Control

Yohei NAKABUCHI[1#+], Hiroto SUZUKI[1], Eiichi NAKAKITA[2]

[1]East Japan Railway Company, [2]Kyoto University

HS33-D5-AM2-330-003 | HS33-A004

Towards a Nowcasting System for Meteorological Services Singapore

Erik BECKER[1#+], Xiangming SUN[1]

[1]Centre for Climate Research Singapore

HS33-D5-AM2-330-004 | HS33-A002

Classification of Persistent Summer Extreme Heavy Rainfall Events in North China During Recent 40 Years

Jie CAO[1,2#+], Linna ZHANG[3]

[1]Chinese Academy of Sciences, [2]National Oceanic and Atmospheric Administration/ University of Oklahoma, [3]Beijing Meteorological Bureau

HS10 / Hydrologic Extremes in a Changing Climate

Fri - 02 Aug | MR329

Time 11:00-12:30

Chair(s) C. T. DHANYA, *Indian Institute of Technology Delhi*

HS10-D5-AM2-329-001 | HS10-A001

Hydro-economic Approaches to Develop Sustainable Agriculture Under Changing Climates: A Case Study from the Ganges Delta, Bangladesh

Sonia MURSHED[1#], Jagath KALUARACHCHI[1+]

[1]Utah State University

HS10-D5-AM2-329-002 | HS10-A007

Ranking of CMIP5 GCMS for Historical Simulation on Regional Scale Using TOPSIS

Young Hoon SONG[1+], Eun Sung CHUNG[1#]

[1]Seoul National University of Science and Technology

HS10-D5-AM2-329-003 | HS10-A010

Climate Change Impacts on Water Resources of the Andong Watershed in South Korea Under CMIP-5 Scenarios

Mohamed RASMY[1,2#+], Ye Seul CHO[3], Akira HASEGAWA[1,4], Toshio KOIKE[5]

[1]Public Works Research Institute, [2]National Graduate Institute for Policy Studies, [3]Yonsei University, [4]The University of Tokyo, [5]International Centre for Water Hazard and Risk Management

HS10-D5-AM2-329-004 | HS10-A015

Climate Change Impacts on River Water Quality Extremes

Rehana SHAIK[1#+], C. T. DHANYA[2]

[1]International Institute of Information Technology, [2]Indian Institute of Technology Delhi

HS10-D5-AM2-329-005 | HS10-A016

Climate Change Signals on Regional Water Energy Variables over Krishna River Basin, India

Rehana SHAIK[1#+], Sireesha NAIDU[1], Nellibilli TINKU MONISH[1]

[1]International Institute of Information Technology

HS10-D5-AM2-329-006 | HS10-A018

Mid-long Term Streamflow Forecasting of the Yarlung Zangbo-Brahmaputra River Under Climate Change

Xiaobo WANG[1], Huijuan CUI[1#+], Shaoqiang WANG[1]

[1]Chinese Academy of Sciences

HS16 / Impacts and Consequences of Changing Climate and Landuse on Hydrology

Fri - 02 Aug | MR328

Time 11:00-12:30

Chair(s) Shailesh SINGH, *National Institute of Water and Atmospheric Research*

HS16-D5-AM2-328-001 | HS16-A003

Accuracy Assessment of Land Use-land Cover Change Analysis and Scenario Development for Flooding Risk Assessment

Ryan CASTANETO[1#+], Decibel FAUSTINO-ESLAVA[1], Loucel CUI[1], Wilbur MANIBO[2], Beth Zaida UGAT[1], Joey Philip TORRES[2], Cristino Jr. TIBURAN[2], Nathaniel BANTAYAN[2], Jenielyn PADRONES[2], Carla DIMALANTA[3]

[1]University of the Philippines Los Baños, [2]University of the Philippines, [3]University of the Philippines Diliman

HS16-D5-AM2-328-002 | HS16-A004

Analysing the Regional Impact of Climate Variability on Runoff Regime in Kesinga Sub-catchment of Mahanadi Basin, India

Pooja AGARWAL[1#+], Pramod Kumar SHARMA[1]

[1]Indian Institute of Technology Roorkee

HS16-D5-AM2-328-003 | HS16-A006

Hydroclimatic Prediction Using Machine Learning Approach Incorporating Time-varying Concept

Kironmala CHANDA[1#+], Rajib MAITY[2]

[1]Indian Institute of Technology (Indian School of Mines) Dhanbad, [2]Indian Institute of Technology Kharagpur

HS16-D5-AM2-328-004 | HS16-A007

Hydro-geochemistry of the Spring Water Sources in the Southwestern Coast of India

Maya K[1#+]

[1]National Centre for Earth Science Studies

HS16-D5-AM2-328-005 | HS16-A010

Spatial and Temporal Variations of Sediment Rating Curves in the Middle Yellow River Basin and Their Implications
Pengcheng SUN[1#+], Yiping WU[1]
[1]*Xi'an Jiaotong University*

HS16-D5-AM2-328-006 | HS16-A012

Acceleration of Hydrological Cycle: Evidences from the River Basins Draining Southern Western Ghats, India
Merin Mariam MATHEW[1], Sreelash KRISHNAN KUTTY[1#+], Micky MATHEW[1]
[1]*National Centre for Earth Science Studies*

PS10 / Aeronomy and Plasma Physics of Planetary Environments

Fri - 02 Aug | MR310

Time 11:00-12:30
Chair(s) Janet LUHMANN, *University of California, Berkeley*

PS10-D5-AM2-310-001 | PS10-A007

Modern Carbon Photochemical Escape Rates at Mars Based on MAVEN Observations
Daniel LO[1#+], Roger YELLE[1], Robert LILLIS[2], Justin DEIGHAN[3], Sonal JAIN[3], Nick SCHNEIDER[3], Meredith ELROD[4], Ed THIEMANN[3], Frank EPARVIER[3], Laila ANDERSSON[3]
[1]*The University of Arizona,* [2]*University of California, Berkeley,* [3]*University of Colorado Boulder,* [4]*NASA Goddard Space Flight Center*

PS10-D5-AM2-310-002 | PS10-A020

Sputtering at Mars and Venus: Models and Observations of Heavy Ion Precipitation
Shannon CURRY[1#+], Janet LUHMANN[1], Chaunfei DONG[2], Takuya HARA[1], Francois LEBLANC[3], Ronan MODOLO[4], Y.J. MA[5]
[1]*University of California, Berkeley,* [2]*Princeton Plasma Physics Laboratory,* [3]*French National Centre for Scientific Research,* [4]*University of Versailles Saint Quentin,* [5]*University of California, Los Angeles*

PS10-D5-AM2-310-003 | PS10-A022

Explosive Foreshock Phenomena at Alien Planets: A Spotters Guide
Glyn COLLINSON[1#+], David SIBECK[1], N. OMIDI[2], Jasper HALEKAS[3], Christopher FOWLER[4]
[1]*NASA Goddard Space Flight Center,* [2]*Solana Scientific Inc.,* [3]*The University of Iowa,* [4]*University of California, Berkeley*

PS10-D5-AM2-310-004 | PS10-A003 (Invited)

Science and Exploration of Langmuir Probe Experiment in Venus Atmosphere: Future Planned Mission
S.A. HAIDER[1#+], K. DURGA PRASAD[1], Varun SHEEL[1], Chandan KUMAR[1], Sanjeev MISHRA[1], P KALYAN REDDY[1], Janmejay KUMAR[1]
[1]*Physical Research Laboratory*

PS10-D5-AM2-310-005 | PS10-A023 (Invited)

Overview of the Structure and Dynamics of a Cometary Induced Magnetosphere After the Rosetta Mission
Pierre HENRI[1#+]
[1]*CNRS*

PS10-D5-AM2-310-006 | PS10-A005 (Invited)

The Generation of Up-going Whistler-mode Waves and Their Acceleration of Energetic Electrons in the Jovian Polar Cap Region: Observations by the Juno Spacecraft
Sadie ELLIOTT[1#+], Donald GURNETT[1], William KURTH[1], Barry MAUK[2], George CLARK[2], Philip VALEK[3], Frederic ALLEGRINI[3,4], Scott BOLTON[3], Peter H. YOON[5], J. Douglas MENIETTI[1]
[1]*The University of Iowa,* [2]*The Johns Hopkins University Applied Physics Laboratory,* [3]*Southwest Research Institute,* [4]*University of Texas at San Antonio,* [5]*University of Maryland*

AS04 / Madden-Julian Oscillation and Its Global Impacts

Fri - 02 Aug | MR311

Time 11:00-12:30
Chair(s) Jiangyu MAO, *Institute of Atmospheric Physics, Chinese Academy of Sciences*
Jian LING, *Chinese Academy of Sciences*

AS04-D5-AM2-311-001 | AS04-A018

The Causes of the TC's Genesis and Track over Western North Pacific Ocean in 2018 Summer
Lijuan CHEN[1#+], Zhensong GONG[2]
[1]*National Climate Center,China Meteorological Administration,* [2]*China Meteorological Administration*

AS04-D5-AM2-311-002 | AS04-A019

Modulation of Western North Pacific Tropical Cyclone Activities by the MJO
Wen ZHOU[1#+], Cheuk Yin LI[1]
[1]*City University of Hong Kong*

AS04-D5-AM2-311-003 | AS04-A016

QBO Modulation of the MJO-related Precipitation Anomalies in East Asia
Hera KIM[1+], Seok-Woo SON[1#], Changhyun YOO[2]
[1]*Seoul National University,* [2]*Ewha Womans University*

AS04-D5-AM2-311-004 | AS04-A005

Modulation of Intraseasonal Variability of Pacific-Japan Pattern by ENSO
Ying LI[1+], Fei LIU[1#]
[1]*Nanjing University of Information Science & Technology*

OS01 / The Southern Ocean and Polar Regions and Their Roles in Climate

Fri - 02 Aug | MR327

Time 11:00-12:30
Chair(s) Robin ROBERTSON, *Xiamen University Malaysia*
Wenju CAI, *Ocean University of China and Qingdao National Laboratory for Marine Science and Technology*

OS01-D5-AM2-327-001 | OS01-A014

Decadal Variabilities of the Tropical SST Impact on the West Antarctic Atmospheric Circulation Changes
Xichen LI[1#+]
[1]*Chinese Academy of Sciences*

OS01-D5-AM2-327-002 | OS01-A010

Characteristics of Near Surface Wind Field at Terra Nova Bay, Antarctica
Muhammad Yunus AHMAD MAZUKI[1], Sheeba Nettukandy CHENOLI[1#+], Azizan Abu SAMAH[1]
[1]*University of Malaya*

OS01-D5-AM2-327-003 | OS01-A016

Does Extreme El Niño Have a Different Effect on the Stratosphere in Boreal Winter Than its Moderate Counterpart?
Zhou XIN[1#+], Jianping LI[2], Fei XEI[2], Quan-Liang CHEN[1], Ruiqiang DING[3], Wenxia ZHANG[3], Yang LI[1]
[1]*Chengdu University of Information Technology,* [2]*Beijing Normal University,* [3]*Chinese Academy of Sciences*

OS01-D5-AM2-327-004 | OS01-A013

Modification of the Wintertime PNA Pattern Related North American Climate Anomalies by the Extratropical ABNA Teleconnection
Bin YU[1#+], Hai LIN[1]
[1]*Environment and Climate Change Canada*

OS01-D5-AM2-327-005 | OS01-A011

Swell Wave Generation Characteristics over the Indian Ocean Domain
Sreelakshmi S[1#+], Prasad BHASKARAN[1]
[1]*Indian Institute of Technology Kharagpur*

AS40 / Precipitation Science and Application of Satellite Data

Fri - 02 Aug | MR302

Time 11:00-12:30
Chair(s) Yukari TAKAYABU, *The University of Tokyo*
George HUFFMAN, *NASA Goddard Space Flight Center*

AS40-D5-AM2-302-001 | AS40-A011 (Invited)

Possibility of Active Lightning Detection by GPM DPR from a Cloud Microphysical Standpoint
Kenji SUZUKI[1#+], Rimpei KAMAMOTO[1], Aritoshi MASUDA[2], Tetsuya KAWANO[3], Katsuhiro NAKAGAWA[4], Yuki KANEKO[5]
[1]*Yamaguchi University,* [2]*Japan Weather Association,* [3]*Kyushu University,* [4]*National Institute of Information and Communications Technology,* [5]*Japan Aerospace Exploration Agency*

AS40-D5-AM2-302-002 | AS40-A015 (Invited)

Vertical Gradient of Stratiform Radar Reflectivity Below the Bright Band from the Tropics to the Extratropical Latitudes Seen by GPM
Shoichi SHIGE[1#+], Kazuki KOBAYASHI[1], Munehisa YAMAMOTO[1]
[1]*Kyoto University*

AS40-D5-AM2-302-003 | AS40-A016 (Invited)

Large-scale Environmental Conditions Related to Midsummer Extreme Rainfall Events Around Japan in the TRMM Region
Atsushi HAMADA[1#+], Yukari TAKAYABU[2]
[1]*Graduate School of Science and Engineering, University of Toyama,* [2]*The University of Tokyo*

AS40-D5-AM2-302-004 | AS40-A018

A Study on Effects of an Upper-tropospheric Trough on the Heavy Rainfall Event in July 2018 over Japan
Chie YOKOYAMA[1#+], Hiroki TSUJI[1], Yukari TAKAYABU[1]
[1]*The University of Tokyo*

AS40-D5-AM2-302-005 | AS40-A017

Heavy Rain Event of July 2018: Development of Precise Hourly Precipitation Data and Analysis of Moisture Flow
Akiyo YATAGAI[1#+], Minami MASUDA[1], Naho SUETO[1], Kotaro MINAMI[1]
[1]*Hirosaki University*

AS13 / Passive and Active Sensing of the Chemistry and Dynamics of the Middle and Upper Atmosphere

Fri - 02 Aug | MR301

Time 11:00-12:30
Chair(s) Iain REID, *ATRAD Pty Ltd*
Patrick ESPY, *Norwegian University of Science and Technology*

AS13-D5-AM2-301-001 | AS13-A001

The Daili (Daily Atmosphere and Ionosphere Limb Imager) Cubesat Mission
James HECHT[1#+], Lynette GELINAS[1], David HINKLEY[1], Richard WALTERSCHEID[1], Jeng-Hwa YEE[2], Andrew CHRISTENSEN[1], Stanley SOLOMON[3], G. CROWLEY[4]
[1]*The Aerospace Corporation,* [2]*The Johns Hopkins University Applied Physics Laboratory,* [3]*National Center for Atmospheric Research,* [4]*Atmospheric & Space Technology Research Associates*

AS13-D5-AM2-301-002 | AS13-A020

Whole Atmosphere Observation over Tibet with APSOS System – Recent Progress
Daren LYU[1,2#+], Weilin PAN[3], Yinan WANG[3], Yufang TIAN[1,2]
[1]*Institute of Atmospheric Physics, Chinese Academy of Sciences,* [2]*University of Chinese Academy of Sciences,* [3]*Chinese Academy of Sciences*

AS13-D5-AM2-301-003 | AS13-A022

Application of Zeeman Technique to Remotely Sense Auroral Electrojet Structure from Space
Jeng-Hwa YEE[1#+], Jesper GJERLOEV[1]
[1]*The Johns Hopkins University Applied Physics Laboratory*

AS13-D5-AM2-301-004 | AS13-A017

New Self-consistent Multi-channel Analysis of Saber/Timed OH(V) and CO2(V) Nighttime Emissions
Peter PANKA[1#+], Alexander KUTEPOV[1], Artem FEOFILOV[2], Ladislav REZAC[3], Diego JANCHES[1], Konstantinos KALOGERAKIS[4], Dan MARSH[5]
[1]*NASA Goddard Space Flight Center,* [2]*Ecole Polytechnique,* [3]*Max Planck Institute for Solar System Research,* [4]*SRI International,* [5]*University Corporation for Atmospheric Research*

SE14 / Active Tectonics, Faults and Large Fast & Slow Earthquakes

Fri - 02 Aug | Nicoll 1

Time 11:00-12:30
Chair(s) Sushil KUMAR, *Wadia Institute of Himalayan Geology*

SE14-D5-AM2-Nicoll 1-001 | SE14-A006 (Invited)

Active Faults Mapping in Afghanistan Using Stereo Images Based on SRTM Data
Zakeria SHNIZAI[1#+], Hiroyuki TSUTSUMI[1], Takashi NAKATA[2]
[1]*Doshisha University,* [2]*Hiroshima University*

SE14-D5-AM2-Nicoll 1-002 | SE14-A019 (Invited)

Can Metasomatism-related Viscous Shear Explain Slow Slip Events in Subduction Zones?
Kohtaro UJIIE[1#+], Kazuya NORO[1], Norio SHIGEMATSU[2], Ake FAGERENG[3], Naoki NISHIYAMA[1], Christopher TULLEY[3], Haruna MASUYAMA[1], Yasushi MORI[4]
[1]University of Tsukuba, [2]National Institute of Advanced Industrial Science and Technology, [3]Cardiff University, [4]Kitakyushu Museum of Natural History and Human History

SE14-D5-AM2-Nicoll 1-003 | SE14-A021 (Invited)

Machine Learning and Wireless Sensor Networks for Earthquake Data Analysis in Real Time
Rama SUSHIL[1#+], Sandip MANDAL[2], Ajay KUMAR[2], Moumita GHOSH[2], Rashmi RAMA SUSHIL[3], Sushil KUMAR[4], Rupak CHAKRABORTY[2], Tejpal SINGH[5]
[1]DIT University, [2]Assistant Professor, [3]Pantnagar University, [4]Wadia Institute of Himalayan Geology, [5]CSIR-Central Scientific Instruments Organisation

SE14-D5-AM2-Nicoll 1-004 | SE14-A007

The Naga-Tripura-Arakan Subduction Zone and Intraslab Earthquakes in Myanmar
Hla Hla AUNG[1#+]
[1]Myanmar Earthquake Committee

SE14-D5-AM2-Nicoll 1-005 | SE14-A012

The Impact of Neo-tectonic Activities on the River System in South Central Vietnam
Nam NGUYEN XUAN[1#+], Hai Thanh TRAN[2], Do Tu Ngo HOANG[3]
[1]Vietnam Institute of Geosciences and Mineral Resources, [2]Hanoi University of Mining and Geology, [3]Hue University of Sciences

SE14-D5-AM2-Nicoll 1-006 | SE14-A005

Source Parameters and Moment Tensors of the February 06 2017 Mw5.7 Garhwal Himalaya, Earthquake, India
Sushil KUMAR[1#+], Mahesh PARIJA[2], Shubhasmita BISWAL[3], Arkoprovo BISWAS[4], Narendra KUMAR[1], Parveen KUMAR[1], Chhavi Pant PANDEY[1], Harish C. PANDEY[1], Sandeep CHABAK[1], Ajay PAUL[1], Rama SUSHIL[5], Chandra SHEKHAR[6], Priyam Vada SINGH[7]
[1]Wadia Institute of Himalayan Geology, [2]CSIR-National Geophysical Research Institute, [3]Indian Institute of Technology Kharagpur, [4]Banaras Hindu University Varanasi, [5]DIT University, [6]Birla Institute of Technology & Science, Pilani, [7]University of Allahabad

BG11 / Biogeosciences General Session

Fri - 02 Aug | MR300

Time 11:00-12:30

Chair(s) Punyasloke BHADURY, *Indian Institute of Science Education and Research Kolkata*
Bhoopesh MISHRA, *University of Leeds*

BG11-D5-AM2-300-001 | BG11-A023 (Invited)

Understanding the Microplastic Pollution and Ingestion by Marine Zooplankton in the Arabian Sea
Prasun GOSWAMI[1#+], Nambali Valsalan VINITHKUMAR[1], Gopal DHARANI[1]
[1]National Institute of Ocean Technology

BG11-D5-AM2-300-002 | BG11-A026 (Invited)

Virus Production and Viral Lysis in Tropical Coastal Waters of Peninsular Malaysia
Stanley Choon Yip CHAI[1], Choon Weng LEE[1#+], Chui Wei BONG[1], Joon Hai LIM[1], Edmund Ui Hang SIM[2], Kumaran NARAYANAN[3]
[1]University of Malaya, [2]University Malaysia Sarawak, [3]Monash University Malaysia

BG11-D5-AM2-300-003 | BG11-A017

Inter-annual Variability in Phytoplankton Community Structure in the Central Arabian Sea During Southwest Monsoon of 2017 and 2018
Mintu CHOWDHURY[1#+], Haimanti BISWAS[1], Diksha SHARMA[1], Saumya SILORI[1], Veronica FERNANDES[1], Jayu NARVEKAR[1], Debosmita BANDYOPADHYAY[2], Aziz ur Rahman SHAIK[3]
[1]National Institute of Oceanography, [2] Integrated Coastal and Marine Area Management Project Directorate, [3]National Institute of Ocean Technology

BG11-D5-AM2-300-004 | BG11-A025

Assessment of Phosphorus Mass Balance in a Deep Hypertrophic Reservoir for Water Supply of Mexico City Metropolitan Area
Arantxa SACRISTÁN-RAMÍREZ[1#+]
[1]National Autonomous University of Mexico

ST25 / Turbulence and Particle Energization in Space, Astrophysical and Laboratory Plasmas

Fri - 02 Aug | MR309

Time 11:00-12:30

Chair(s) Jiansen HE, *Peking University*

ST25-D5-AM2-309-001 | ST25-A016 (Invited)

Signatures of Alfven-mode and Slow-mode Waves and Non-propagating Structures in 3D Compressive MHD Turbulence
Li-Ping YANG[1#+], Hui LI[2], Shengtai LI[2], Lei ZHANG[3], Jiansen HE[4], Xueshang FENG[3]
[1]National Space Science Center, [2]Los Alamos National Laboratory, [3]Chinese Academy of Sciences, [4]Peking University

ST25-D5-AM2-309-002 | ST25-A012

Ion Scale Plasma Turbulence Upstream and Downstream of the Earth's Bow Shock
Liudmila RAKHMANOVA[1#+], Maria RIAZANTSEVA[1], Georgy ZASTENKER[1], Yuri YERMOLAEV[1]
[1]Russian Academy of Sciences

ST25-D5-AM2-309-003 | ST25-A007

Observations of Turbulence in Magnetic Reconnection Region
Kui JIANG[1#+], Shiyong HUANG[1], Zhigang YUAN[1], Xiaohua DENG[1]
[1]Wuhan University

ST25-D5-AM2-309-004 | ST25-A017

Chaos-induced Resistivity in Collisionless Magnetic Reconnection
Zhen WANG[1#+]
[1]Chinese Academy of Sciences

IG15 / Data-driven Modeling in Geoscience

Fri - 02 Aug | MR323

Time 11:00-12:30

Chair(s) Dmitri KONDRASHOV, *University of California, Los Angeles*
Shin-ichi ITO, *The University of Tokyo*

IG15-D5-AM2-323-001 | IG15-A013

Bayesian Inference and Forecast for Recurrent Earthquakes with Uncertain Occurrence Dates

Shunichi NOMURA[1#+], Yosihiko OGATA[1]
[1]*The Institute of Statistical Mathematics*

IG15-D5-AM2-323-002 | IG15-A019

Radon Dynamic in Soil and a Series of Earthquakes in Chiba Prefecture, Japan: Is There an Association?

Miroslaw JANIK[1#+], Peter BOSSEW[2], Giorgia CINELLI[3]
[1]*National Institute of Radiological Sciences,* [2]*German Federal Office for Radiatiion Protection (BfS),* [3]*European Commission*

IG15-D5-AM2-323-003 | IG15-A006

Bayesian Inference of Grain Growth Prediction via Multi-phase-field Models

Shin-ichi ITO[1#+], Hiromichi NAGAO[1], Takashi KUROKAWA[1], Tadashi KASUYA[1], Junya INOUE[1]
[1]*The University of Tokyo*

IG15-D5-AM2-323-004 | IG15-A012

An Adjoint-based Simultaneous Estimation Method of the Upper Mantle Viscosity and Afterslip Using Finite Element Modeling

Ryoichiro AGATA[1#+], Tsuyoshi ICHIMURA[2], Takane HORI[1], Kazuro HIRAHARA[3], Chihiro HASHIMOTO[4], Muneo HORI[1]
[1]*Japan Agency for Marine-Earth Science and Technology,* [2]*The University of Tokyo,* [3]*RIKEN,* [4]*Nagoya University*

IG15-D5-AM2-323-005 | IG15-A002

Estimation of Material Transfer from Compositional Dataset Using Sparse Modeling

Tatsu KUWATANI[1#+], Kenta YOSHIDA[1], Kenta UEKI[1], Ryosuke OYANAGI[1], Masaoki UNO[2], Shotaro AKAHO[3]
[1]*Japan Agency for Marine-Earth Science and Technology,* [2]*Tohoku University,* [3]*National Institute of Advanced Industrial Science and Technology*

IG15-D5-AM2-323-006 | IG15-A003

Feature Selection of Magmatic Tectonic Settings Based on Sparse Multinomial Regression

Kenta UEKI[1#+], Hideitsu HINO[2], Tatsu KUWATANI[1]
[1]*Japan Agency for Marine-Earth Science and Technology,* [2]*The Institute of Statistical Mathematics*

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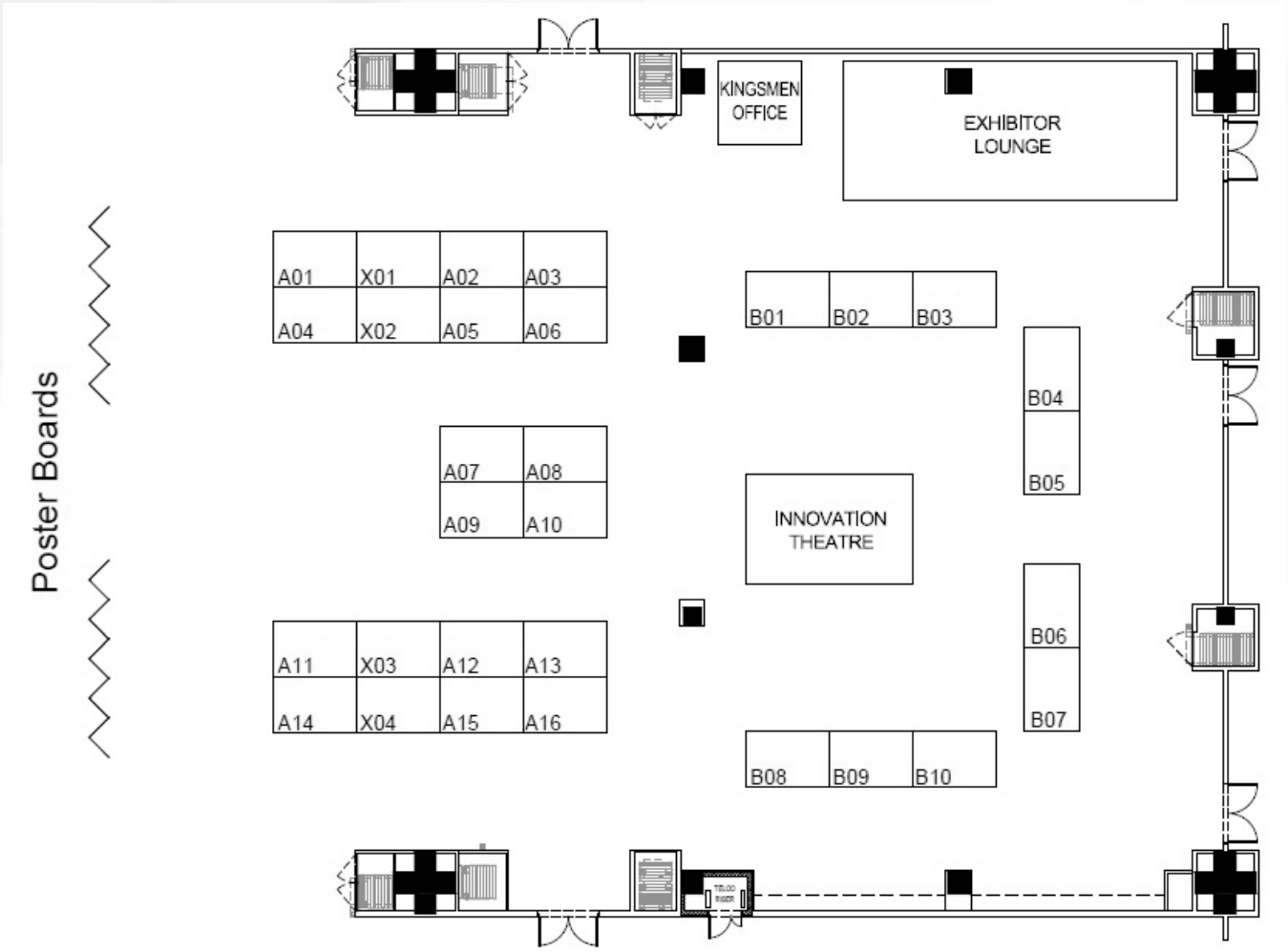
GEOMEET



General Information

Exhibition Location
SUNTEC Singapore, Level 3

Exhibitor Registration
Sun - 28 Jul, from 14:00
Mon - 29 Jul to Fri – 02 Aug, from 08:00

Booth Dressing
Mon - 29 Jul, 15:00 - 18:00

Exhibition Opens / Welcome Reception:
Mon – 29 Jul, from 18:30

Exhibition Hours
Mon - 29 Jul, from 18:30 - 20:30
Tue - 30 Jul to Thu - 01 Aug, 10:00 - 18:00
Fri - 02 Aug, from 10:00 - 16:00

Innovation Theatre
Mon - 29 Jul, 18:45 - 19:15 / 19:30 - 20:00
Tue - 30 Jul to Thu - 01 Aug,
10:30 - 11:00 / 15:30 - 16:00

Tear Down/Ship-Out
Fri - 02 Aug, Latest by 19:00

Exhibitors

Organization	Booth
LI-COR Biosciences	A01
Royal Society Publishing	A02
National Institute of Information and Communications Technology	A03
European Geosciences Union	A04
Japan Geoscience Union	A05
Earth Observatory of Singapore	A06
NASA	A07 – A10
Earth Science Research Promotion Center & TAO Journal	A11
COSPAR 2020	A12
METER Group, Inc. USA	A13
Earthquake Disaster & Risk Evaluation and Management Center (E-DREaM) & Center for Astronautical Physics and Engineering (CAPE)	A14
36Th International Geological Congress 2020, New Delhi, India	A15, X04
Springer Nature	A16

Organization	Booth
Picarro, Inc	B01
AOGS Infinity	B02
Beta Analytic, Inc	B03
Belmont Forum	B04
Dynamic Technologies DTCC	B05
Nanometrics Inc	B06
Gangwon Convention & Visitors Bureau	B07
Kinemetrics, Inc	B08
Melbourne Convention Bureau	B09
Korean Meteorological Society	B10
Fukuoka Convention & Visitors Bureau	X02
Taiwan Earthquake Research Center	X03

Innovation Theatre

The **"Innovation Theatre"** is for AOGS attendees to watch some of our Exhibitors and Sponsors showcase their products and services. It is to share knowledge about crucial developments in their products.

Mon-29 Jul 2019	18:45 to 19:15	Earth Science Research Promotion Center & TAO Journal	See also page B3
	19:30 to 20:00	Taiwan Earthquake Research Center	See also page B4
Tue-30 Jul 2019	10:30 to 11:00	METER Group, Inc. USA	See also page B5
	15:30 to 16:00	Nanometrics Inc	See also page B6
Wed-31 Jul 2019	10:30 to 11:00	Springer Nature	See also page B6
	15:30 to 16:00	Dynamics Technologies DTCC	See also page B7
Thu-01 Aug 2019	10:30 to 11:00	LI-COR Biosciences	See also page B7
	15:30 to 16:00	National Institute of Information and Communications Technology	See also page B8
Fri-02 Aug 2019	10:30 to 11:00	Gangwon Convention & Visitors Bureau	See also page B9

EXHIBITORS

Booth A06
Earth Observatory of Singapore
50 Nanyang Avenue, N2-01a-14, Nayang Technological University, Singapore

Tel: +65 6514 8977
Email: jantoinette@ntu.edu.sg
Web: https://www.earthobservatory.sg

The Earth Observatory of Singapore is an institute for geohazard research, focusing on tectonics, volcanoes, climate change and risk in and around Southeast Asia. Situated at Nanyang Technological University, the Observatory is committed to acquiring knowledge of these natural hazards, passing this information on to at-risk communities by contributing to forecasts of such natural phenomena, and helping them adapt to these challenges.

Booth A11
Earth Science Research Promotion Center & TAO Journal
No. 300, Zhongda Rd., Zhongli District, Taoyuan City 32001, Taiwan (R.O.C.)

Tel: +886 3 4276264 Fax: +886 3 4227443
Email: esrpc@ncu.edu.tw Web: http://esrpc.ncu.edu.tw/

The Earth Science Research Promotion Center (ESRPC) is operated under the Ministry of Science and Technology, Taiwan. Our mission is to promote collaborative research with global scientists in a broad spectrum of earth sciences by supporting scientific activities of inviting visiting scholars to Taiwan and holding international conference in Taiwan. We also promote the circulation of Terrestrial, Atmospheric and Oceanic Sciences (TAO), a SCI journal since 1990.

Innovation Theatre
Mon – 29 Jul, 18:45 – 19:15

"Integrating Geophysical Data for Building the Apparent Geological Models"
Ping-Yu CHANG, *Dept. of Earth Sciences/ EDREaM Center, National Central University*

We used the resistivity measurements to establish three-dimensional (3D) hydrogeological apparent models. Core records from the monitoring wells in the area were used for the training data to help determining the resistivity ranges of the gavel, sand, and muddy sediments in the fan-delta. The resistivity measurements were inverted and converted into 1-D data form and interpolated for rendering a three dimensional resistivity volume that represents the general resistivity distribution in the fan-delta systems. Water resistiviy data from the observation wells were used for calculating the formation factors (FI) within the models. We compared the FIs with indexed core records near some of the resistivity surveys sites and concluded the range of the FIs for different materials in a statistical sense. Lastly we transfer the resistivity models into the gravel-sand-clay geological models with the computed formation factors. Since the spatial distribution of non-invasive resistivity measurements is more dense than the locations of geological cores. These "apparent" models are better to represent the detailed sedimentary structures than the traditional over-simplified conceptual models built from only the correlations of core records. Hence we are able to quickly construct the 3D discretized apparent models with three geologic materials for further modeling purposes.

"Reconstructing the Tsunami Sources of 2018 Palu Tsunami Event"
Tso-Ren WU, *Graduate Institute of Hydrological and Oceanic Sciences, National Central University*

The tsunami in the event of 2018 Sulawesi earthquake and tsunami (SET) occurred after an earthquake of magnitude 7.5. However, it is very difficult for such an earthquake to trigger a tsunami with 10-m flood depth. The causes of this tsunami event remain unknown. A submarine landslide, an additional seabed vertical displacement, and seiche effect may play roles. To gain a deeper understanding of this tsunami event, finding the location of the tsunami source is especially important. We developed two new tsunami analysis methods, impact intensity analysis method (IIA) to analyze the tsunami source in the SET event. The IIA method can quickly filter out the areas with low impacts of the tsunami sources and effectively reduce the number of tsunami scenarios. In this study, we perform different scenarios by simulating the tsunamis generated by the earthquake, seiche, and in-the-bay landslides. The earthquake scenario results show that the wave height contributed by the earthquake is less than 0.3 m, which is far away from the field survey. The IIA is then used to reduce the number of the scenarios. From both of the IIA results of Palu and Pantoloan, the possible tsunami sources are located either inside the Palu Bay or around the bay mouth. Based on the tidal gauge data at Pantoloan and the tsunami arrival time from BMGK, the precise location of the tsunami source is spotted. We further created several scenarios which satisfied most of the data we collected, such as the Pantoloan gauge record, Palu inundation area, and flooding depth from the field survey along the Palu Bay. The detailed results will be presented in the full paper.

Booth A07 – A10
NASA
NASA Goddard Space Flight Center, Building 33, Room E112Greenbell, MD 20771.

Tel: +1 301 614 5560 Fax: +1 301 614 6530
Email: winnie.h.humberson@nasa.gov
Web: https://www.nasa.gov/

Come to the NASA booth at AOGS and meet the scientists using NASA's latest science data sets to help address natural hazards in Asia, Oceania, and around the world! NASA's Hyperwall will showcase a range of captivating, ultra-high resolution data visualizations to highlight some of NASA's most recent science discoveries.

NASA Hyperwall Science Stories
NASA Hyperwall will showcase the most exciting and latest science discoveries with subject experts here to story tell the science.

Visit the NASA booth or announcement boards for details on the science stories and their presenters.

Booth X03
Taiwan Earthquake Research Center
128, Sec.2, Academia Road, Nangang, Taipei 11529, Taiwan

Tel: +886 2 27839910
Fax: +886 2 27839871
Email: tec@earth.sinica.edu.tw
Web: http://tec.earth.sinica.edu.tw

TEC (Taiwan Earthquake Research Center), a platform to present our most state-of-the-art earthquake science studies and to deliver our knowledge to the general public.

Innovation Theatre
Mon – 29 Jul, 19:30 – 20:00

"Innovative Earthquake Science and Technologies Developed in Taiwan: Taiwan Earthquake Research Center (TEC) and Earthquake- Disaster & Risk Evaluation and Management (E-DREaM) Center"
Wen-Tzong LIANG, *Taiwan Earthquake Research Center, Institute of Earth Sciences, Academia Sinica*

Chung-Han CHAN, *Earthquake- Disaster & Risk Evaluation and Management (E-DREaM) Center, National Central University Earth Observatory of Singapore, Nanyang Technological University*

In the past decade, the Taiwan Earthquake Research Center (TEC) has promoted a series of studies on real-time seismology, earthquake early warning (EEW) and seismic hazard and risk analysis with support from the Minister of Science and Technology (MOST). An automated near real-time moment tensor monitoring system (RMT) has been constructed to monitor the seismic activity by taking advantage of a grid-based moment tensor inversion technique and long-period broadband seismic recordings. The P-Alert, a MEMS accelerometer for on-site earthquake early warning, has been widely deployed island-wide in Taiwan. It can detect first P-wave arrival and provide an alert with predicted intensity when the amplitude of vertical P-wave is over a threshold. This EEW system is not only providing the on-site EEW but also reinforce the earthquake disaster prevention education. By integrating the earthquake science, earthquake engineering, and social science communities of Taiwan, the Taiwan Earthquake Model (TEM) program improves our understanding of Taiwan earthquake mechanisms and therefore provide new insight into seismic hazard and risk assessments for Taiwan. We continued the effort to publish the state of the art science-based hazard model of Taiwan on the basis of the Probability of Seismic Hazard Assessment (PSHA) approach. The establishment of Earthquake- Disaster & Risk Evaluation and Management (E-DREaM) Center in National Central University, Taiwan, in 2018, built in the accessible seismic hazard information through developing App, and provided deep in sight to industrial partners for seismic hazard and risk management.

The TEC not only acts as a platform for the advanced researches in earthquake science and technology, but also presenting real-time earthquake information and creative and diversity tools and materials for seismic education outreach. Through the inter-collaborated work among, TEC, TEM and E-DREaM, we built the bridges from science to community and to industrial partners for earthquake prone region of Taiwan.

Booth A13
METER Group, Inc. USA
2365 NE Hopkins Ct. Pullman, WA 99163

Tel: +1 509 332 2756 Fax: +1 509 332 5158
Email: sandra@metergroup.com
Web: www.metergroup.com

METER specializes in advanced IoT measurement systems where all data are connected and delivered to the cloud in near-real time. Discover innovative research solutions like ultra-robust soil moisture sensing, all-in-one weather monitoring, simplified data logging, intuitive data visualization software, automated particle size analysis, and more at our booth #A-13.

Innovation Theatre
Tue – 30 Jul, 10:30 – 11:00

"Cloud-Based Automatic Weather Stations for Geospatial Climate Mapping."
Matt GALLOWAY, *METER Group*

As human populations grow and with the advent of climate change, there is an increasing need to have more localized and accurate weather and climate data. Traditional municipal and regional weather stations are often sparsely located and therefore don't provide enough useful data for localized accurate climate modelling or irrigation scheduling. METER's low-cost ATMOS 41 automated weather station allows researchers to accurately monitor the climate in more areas, including remote locations that don't have mains power. Paired with METER's cloud-connected, solar-powered ZL6 data logger, the ATMOS 41 gives you near real-time climate data, and it has no moving parts, which means fewer maintenance problems.

The ZENTRA Cloud data visualization platform lets you view all your weather stations on a map at any place you have an internet connection. ZENTRA Cloud also processes and graphs the data for you, saving valuable time. This presentation will highlight some existing weather networks in both the USA and Africa who use the ATMOS 41 automated systems, as well as the ZENTRA Cloud platform that enables researchers to visualize and collaborate in near-real time with the data collected from these stations.

AOGS Partner Societies

Booth A05 Japan Geoscience Union (JpGU)

Email: shirai@jpgu.org Web: http://www.jpgu.org/en/index.html

The Japan Geoscience Union (JpGU), with more than 8,500 members, is a multidisciplinary geoscience organization based in Japan promoting excellence in all fields related to Earth and planetary science. The JpGU also publishes a peer-reviewed open access e-journal, Progress in Earth and Planetary Science (PEPS) in partnership with SpringerOpen.

Booth A04 European Geosciences Union (EGU)

Email: executive-secretary@egu.eu
Web: https://www.egu.eu/

The European Geosciences Union (EGU) is, with over 15,000 members, Europe's premier geosciences union. It is dedicated to the pursuit of excellence in the earth, planetary, and space sciences for the benefit of humanity. The EGU has a current portfolio of 17 diverse Open Access journals and its annual General Assembly is the largest European geosciences event.

Booth B01
Picarro, Inc

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Tel: +1 408 4600688
Email: gabhun2015@gmail.com Web: www.picarro.com

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Booth B08
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Fax: +1 626 795 0868
Email: lani@kmi.com
Web: www.kinemetrics.com

Kinemetrics is the world leader in the innovative design, quality manufacturing and timely supply of earthquake monitoring equipment, systems and solutions, where reliability, flexibility and cost effectiveness are important. Kinemetrics has 48 years of experience in providing seismologists and structural engineers with the highest standard instrumentation www.kinemetrics.com "Advancement Through Innovation"

Booth A14
Earthquake-Disaster & Risk Evaluation and Management Center (E-DREaM) & Center for Astronautical Physics and Engineering (CAPE)

Room 409, Kwoh-Ting Library and Archives , No. 300, Zhongda Rd., Zhongli District, Taoyuan 32001

Tel: +886 921016544
Email: lastkie@gmail,com
Web: https://e-dream.tw

E-DREaM center transforms the techniques acquired from the research on seismic hazards and earthquake-induced compound disasters to the practices of risk assessment and management extracted from industries. CAPE is an all-in-one university space center designing and operating small satellites and science payloads. The center is actively researching and developing spacecraft systems, components, and sensors, as well as operations and flight control capacity.

Booth B03
Beta Analytic, Inc
4985 SW 74th Court Miami, Florida 33155

Tel: +1 305 667 5167
Email: advertising@betalabservices.com
Web: https://www.radiocarbon.com/

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Booth A16
Springer Nature
Rm 408-409, Beijing Ideal Plaza, 58 Northwest 4th Ring Road, Haidian District 100080

Tel: +86 10 83415000
Email: bo.niu@springernature.com
Web: http://www.springernature.com/

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Innovation Theatre
Wed – 31 Jul, 10:30 – 11:00

"Topical Collections – How To?"
Jan MARGULIES, *Springer Nature*

Topical collections are very important for journals to attract readers but also authors that can cite the articles published in collections. They summarize the current research or give a deeper insight on a specific topic. The visibility of the topic, the journal and the authors of the collection are getting increased. But what are the differences between topical collections, special issues and article collections? How can an idea for a topical collection become a published collection? Where can I find help to found an open access topical collection? That will be topics included in the presentation.

Booth B06
Nanometrics, Inc
250 Herzberg City, Kanata K2K 2A1, Canada

Tel: +1 613 592 6776
Email: alyssaparks@nanometrics.ca
Web: http://www.nanometrics.com/

For over 30 years, Nanometrics has provided award-winning monitoring solutions and equipment for studying man-made and natural seismicity. Nanometrics delivers world-class network design, installation and training services throughout the globe in a safety conscious environment that is utilized by the world's leading scientific institutions, universities and major corporations.

Innovation Theatre
Tue – 30 Jul, 15:30 – 16:00

"Pegasus Data Acquisition"
Alastair FENWICK, *Nanometrics*

Pegasus Data Acquisition System - a Revolutionary New Ecosystem for Portable Monitoring Campaigns

This presentation will demonstrate how the new Pegasus is an intuitive and versatile data acquisition system covering the full spectrum of portable applications from long term broadband to full waveform, full wavefield imaging. Deliberately designed with every modular component thoughtfully integrated to provide the most intuitive experience, every aspect of the Pegasus ecosystem is optimized for simplicity and ease-of-use ensuring the highest possible data quality and availability from even the most demanding project environment.

Class-leading power consumption allows everything about the Pegasus platform to be small, lightweight and modular. The exceptionally low power consumption significantly reduces battery requirements, overall station size and weight allowing for the efficient deployment of more stations for a longer period of time. The modular nature opens up broad choices in battery chemistry and sensor technologies, facilitating transport logistics and matching station design to the needs of the science. Flexible and modular, the Pegasus digital recorder supports single, dual or 3-component analog sensors including: meteorological sensors, broadband seismometers, microbarometers, geophone sensors and strong motion accelerometers.

The presentation will also show how the Pegasus ecosystem is simple to deploy, service and data are easy to recover, whether you are working with a handful of units or many hundreds. Data recovery is via lightning-fast USB 3.0, where one month of ready-to-process MiniSEED data, StationXML metadata and comprehensive project audit information, including merging ancillary data, can be seamlessly downloaded in under 10 seconds. Pegasus is the only system that can scale to meet the Large-N challenge.

Booth B05
Dynamic Technologies DTCC
403, Building D, No.15 South of Ronghua Road, BDA, Beijing, 100176, China

Tel: +86 10 60844158
Fax: +86 10 87220112
Email: anne_li@dtcc.asia
Web: www.dtcc.biz

The DTCC Group was formed in 1999, with its headquarters located in Calgary, Canada. It is a manufacturer of vibration sensing and measuring equipment. DTCC has developed the SmartSolo intelligent seismic sensor to provide the industry with a solution to balance the requirement to keep project costs under control.

Innovation Theatre
Wed – 31 Jul, 15:30 – 16:00

"High Reliability, High Uniformity Seismic Nodes"
Dongning ZHAO, *Dynamic Technologies (DTCC)*

Super reliable SmartSolo sensor features low frequency performance, smaller crew size, less man power, and simpler equipment.

High-quality seismic data are derived from high-quality seismic sensors. DT-SOLO's high-sensitivity geophone is specially designed for single point receiver applications. It is well known to the seismic industry as the top-quality high-sensitivity geophone and is widely used by major contractors and equipment manufacturers.

Booth B10
Korean Meteorological Society
1510 Renaissance Tower Bldg., 14, Mallijae-ro, Mapo-gu, Seoul 04195

Tel: +82 2 835 1619 Fax: +82 2 849 1541
Email: komes@komes.or.kr
Web: http://www.komes.or.kr/

The Korean Meteorological Society (KMS) has been devoted to improve our understanding of earth's environment with a particular focus on atmospheric sciences, climate, and events caused by severe weather, climate change, and air pollution. The KMS publishes both international and domestic peer-reviewed journals, 'Asia-Pacific Journal of Atmospheric Sciences' and 'Atmosphere'.

Booth A01
LI-COR Biosciences
4647 Superior Street Lincoln, NE 68504 USA

Tel: +1 402 467 0742 Fax: +1 402 467 0805
Email: gloria.lekai@licor.com
Web: https://www.licor.com/env/

Visit LI-COR's booth (A01) to see the latest instrumentation for environmental research. LI-COR instruments include high-precision laser-based trace gas analyzers, light and radiation sensors, eddy covariance gas exchange measurement systems, soil gas flux measurement systems, and photosynthesis measurement systems based on gas exchange and chlorophyll fluorescence.

Innovation Theatre
Thu – 01 Aug, 10:30 – 11:00

"New High-Precision CO2 and CH4 Analyzers For Multiple Applications"
Richard GARCIA, *LI-COR Inc.*

LI-COR Biosciences manufactures instrumentation for environmental research, including systems that measure greenhouse gas emissions from soils. In 2018, LI-COR released two new laser-based, high precision analyzers for greenhouse gas measurements - the LI-7810 $CH_4/CO_2/H_2O$ Gas Analyzer and LI-7815 CO_2/H_2O Gas Analyzer. The analyzers incorporate Optical Feedback – Cavity Enhanced Absorption Spectroscopy (OF-CEAS), in a design and implementation allowing them to be used in a multitude of methods and approaches including the following:

- Long-term and survey soil flux chamber measurements, including both CH_4 and CO_2 from the same $CH_4/CO_2/H_2O$ gas analyzer.
- Approaches relying on very high precision CH_4 concentrations, encompassing those often employed by WMO-GAW and EPA communities.
- Micrometeorological tower methods relying on relatively slow but well-resolved CH_4 concentrations.
- Distributed Sensors techniques.
- Mobile monitoring, including measurements from various moving platforms.

The technology aims to provide WMO-quality measurements of CH_4, CO_2 and other gases with a time response of 1 Hz, the power consumption of 25 W, and with high precision and stability over time. They can integrate into long-term monitoring stations, or be used in chamber-based soil flux applications.

This presentation will describe key instrument principles and elements of the design, and show laboratory and field results on CH_4 and on CO_2 from the new LI-7810 $CH_4/CO_2/H_2O$ Gas Analyzer and LI-7815 CO_2/H_2O Gas Analyzer. This includes an introduction to the technology behind the instruments, as well as data including mean

atmospheric concentrations tests, long-term soil flux measurements and survey soil flux measurements.

Booth A03
National Institute of Information and Communications Technology
4-2-1, Nukui-kita, Koganei, Tokyo, 184-8795, Japan

National Institute of Information and Communications Technology

Tel: +81 42 327 7429
Email: nakayama-kenji@nict.go.jp
Web: http://www.nict.go.jp/en/

As Japan's sole National Research and Development Agency specializing in the field of information and communications technology, the National Institute of Information and Communications Technology (NICT) is charged with promoting ICT sector as well as research and development in ICT, which drives economic growth and creates an affluent, safe and secure society.

Innovation Theatre
Thu – 01 Aug, 15:30 – 16:00

"The Activity of Asia-Oceania Space Weather Alliance (AOSWA)"
Mamoru ISHII, *Space Environment Laboratory, NICT*

AOSWA has established on 2010 for information exchange among space weather organizations in Asia Oceania region. Now 27 organizations from 13 countries and regions are participated in AOSWA. We have five face-to-face meeting in Thailand, China, Japan, Korea and Indonesia since 2012 for discussing data sharing, research to operation for improving space weather research activities.

The purpose of this group is to share the information of space weather Research and Development and build cooperative project for improving research and operation for space weather forecast. We already have some fruitful result under the umbrella of AOSWA; Japan, Korea and Taiwan discuss oblique sounding observation network for ionosphere in East Asia.

In this presentation, we would like to introduce the AOSWA and its members' activities, and some examples of cooperation for encouraging to join us.

Booth B09
Melbourne Convention Bureau
727 Collins Street, Melbourne VIC, 3008

MELBOURNE Convention Bureau

Tel: +61 3 9002 2331
Email: olivia.buck@melbournecb.com.au
Web: www.aogs2022melbourne.com

Melbourne, Australia is bidding to host the Annual Meeting of the Asia Oceania Geosciences Society in 2022. We are confident that a meeting in our city will be very successful and offer great outcomes for scientists globally.

Booth B02
AOGS Infinity
#06-23, ONE COMMONWEALTH, 1 Commonwealth Lane, Singapore 149544

Asia Oceania Geosciences Society www.asiaoceania.org

Tel: +65 6472 3108
Email: admin@asiaoceania.org
Web: http://www.asiaoceania.org/society/public.asp?view=office_bearer_rac#RAC

Not long ago, a prominent Indian scientist said: "Science is global while technology is local". This is definitely true as shown by the expansion of AOGS among the Asian-Pacific scientific community. This is because geoscience must be conducted in the spirit of interdisciplinary and intra-boundary partnership. To learn more and to exchange information on how to strengthen the regional cooperation among different research groups and institutions, whether east and west or south and north, please stop by the "AOGS Infinity" Exhibition Booth anytime. Your participation will allow AOGS to promote further the advances of geoscience and technology in our region.

Booth X02
Fukuoka Convention & Visitors Bureau
2-5-31, Daimyo, Chuo-ku, Fukuoka, 810-0041

Meeting Place Fukuoka

Tel: +81 92 733 0101 Fax: +81 92 733 3100
Email: nagasawa@welcome-fukuoka.or.jp
Web: https://www.welcome-fukuoka.or.jp/english/

Fukuoka offers a wonderful balance of modern city life and traditional Japanese culture. It is a flourishing, thriving city with outstanding local hospitality, conference facilities and infrastructure. Fukuoka Convention & Visitors Bureau offers a 'One-stop service' for event organizers. Enjoy warm hospitality and have unique experiences in Fukuoka, Japan.

Booth B07
Gangwon Convention & Visitors Bureau
24239 11, Subyeongongwon-gil, Chuncheon-si, Gangwon-do

Tel: +82 33 249 4455 Fax: +82 33 251 5495
Email: chlee@visitgangwon.or.kr
Web: visitgangwon.or.kr

AOGS 2020 HOST CITY GANGWON! Gangwon Province is poised to be the number one tourist attraction in Korea, as it is blessed with a magnificent natural environment and world-class resorts.

Innovation Theatre
Fri – 02 Aug, 10:30 – 11:00

Booth B04
Belmont Forum
Av. Italia 6201, Ed. Los Tilos 102, Montevideo, Uruguay 11500

Tel: +886 2 3366 3488 Fax: +886 2 3366 1702
Email: erica.key@belmontforum.org
Web: http://www.belmontforum.org/

Established in 2009, the Belmont Forum (BF) is a global partnership platform that brings together funding and resource providers to support transdisciplinary, transnational approaches to global environmental change. The primary instrument of support is through Collaborative Research Actions (CRAs), which are international requests for proposal. Examples of CRA themes include freshwater security, coastal vulnerability, biodiversity and ecosystem services, climate-environment-health, food-water-energy nexus, and food security. In total, the Belmont Forum has launched 17 international funding opportunities that have supported over 100 projects, bringing together more than 1000 natural scientists, social scientists and humanities experts, working collaboratively with a diversity of stakeholders. Working across knowledge systems and international borders, these projects have transformed policy and practice to help meet the Belmont Forum Challenge: understanding, mitigating, and adapting to global environmental change. In this, our 10th anniversary year, we reflect on these accomplishments and lessons learned and seek input on how to evolve and meet the needs of the next 10 years.

Booth A15, X04
36Th International Geological Congress
2020, New Delhi, India
MadanGir Road, New Delhi 110062

Tel: +91 9968213437
Email: himangshu1970@gmail.com
Web: http://36igc.org

The 36th International Geological Congress 36 IGC), Themed " Geosciences: The Basic Science for a Sustainable Future" will be held during 2-8 March, 2020 at the India Expo Mart Ltd., Greater Noida. Delhi NCR, INDIA. It is funded by the Ministry of Mines and Ministry of Earth Sciences, Government of India. with the active scientific support from the Indian National Science Academy, and the Science Academies of Bangladesh, Nepal, pakistan and Sri Lanka

Booth A12
COSPAR 2020
Level 9, 234 George Street Sydney NSW, 2000

Tel: +61 29254 5000
Email: emmab@icmsaust.com.au Web: www.cospar2020.org

COSPAR 2020 is the largest gathering of space scientists in the world. The mission of the Scientific Assembly is to promote research in space on an international level, whilst providing an open forum for discussion with an emphasis on results, information and opinions. Come and see us at booth A12 today!

Booth A02
Royal Society Publishing
6-9 Carlton House Terrace, London SW1Y 5AG

Tel: +44 207 451 2500
Email: bailey.fallon@royalsociety.org
Web: https://royalsociety.org/journals/

The Royal Society publishes ten journals, including three covering all areas of the physical, mathematical and engineering sciences.

IMPORTANT CONTACTS

Information and Assistance

- **AOGS Secretariat at Meeting Matters International**
  Tel: +65 6472 3108 Fax: +65 6472 3208
  Address: 1 Commonwealth Lane, #06-23 ONE COMMONWEALTH, Singapore 149544

  Email Enquiries to:

  Exhibtion & Sponsorship
  Alex ANG
  HP: +65 9189 0822
  Email: geomeet@asiaoceania.org

  Registration & Help Desk
  Si Ying HO
  HP: +65 9025 0552
  Email: info@asiaoceania.org

  Society Business, Feedback & Complaints
  Cheng Hoon KHOO
  HP: +65 9819 9462
  Email: admin@asiaoceania.org

- **Emergency Services**

Police	999
Police Hotline	1800 225 000
Fire & Ambulance Services	995
Ambulance Service (Non- emergency)	1777
Emergency Road Service (24h)	+65 6748 9911

- **About Singapore**

Tourist Information Hotline	1800 736 8900
City Search	1900 777 7777
Singapore Hotel Association	+65 6523 0233
Flight Information	1800 542 4422

- **Transport Services**

Comfort and City Cab	+65 6552 1111
Premier Taxis	+65 6214 8880
Prime Taxi	+65 6778 0808
SMRT Taxis	+65 6555 8888
TransCab	+65 6555 3333
MRT Information Centre	1800 336 8900

- **Credit Cards**

American Express	+65 6299 8133
Diners Club	+65 6294 4222
Visa Club	1800 345 1345
Citibank	+65 6225 5225
MasterCard	+65 6533 2888

- **Conference Hotels**

30 Bencoolen	+65 6337 2882
Concorde Hotel	+65 6733 8855
Conrad Centennial	+65 6334 8888
Goodwood Park Hotel	+65 6730 1881
Grand Park City Hall	+65 6336 3456
Holiday Inn Express Clarke Quay	+65 6589 8000
Holiday Inn Singapore Atrium	+65 6733 0188
Hotel G	+65 6809 7988
Hotel Royal @ Queens	+65 6725 9933
Ibis Singapore Bencoolen	+65 6593 2888
Intercontinental Singapore	+65 6338 7600
JW Marriott	+65 6818 1888
M Social Hotel	+65 6206 1888
Mandarin Oriental	+65 6338 0066
Marina Mandarin Singapore	+65 6845 1000
Novotel Clarke Quay	+65 6338 3333
Oasis Hotel Downtown	+65 6812 6900
Orchard Hotel	+65 6734 7766
Pan Pacific	+65 6336 8111
Peninsula Excelsior	+65 6337 2200
Rendezvous Hotel	+65 6845 1000
Santa Grand East Coast	+65 6344 6866
Santa Grand Hotel Bugis	+65 6298 8889
Studio M Hotel	+65 6808 8888
Summer View Hotel	+65 6338 1122
Swissotel The Stamford	+ 65 6338 8585
The Outpost Hotel	+65 6722 0801
The Quincy Hotel	+65 6738 5888
Village Hotel Albert Court	+65 6339 3939
Village Hotel Bugis	+65 6297 2828
Village Hotel Sentosa	+65 6722 0800

Suntec Singapore Convention & Exhibition Centre

Address: 1 Raffles Boulevard, Suntec City, Singapore 039593

Getting to Suntec

- **By Buses**
  Bus Services: 36, 97, 106, 111, 133, 501, 502, 518, 857, 700
  MRT Stands for "Mass Rapid Transit", and is Singapore's train and subway system. Suntec Singapore is connected to the MRT network through several MRT Stations.

- **By MRT**
  The nearest MRT Stations are Esplanade Station (CC3) and Promenade Station (CC4/DT15) via the Circle Line which will bring you directly to Suntec Singapore.

  Alternatively, take the MRT to City Hall Station (NS25/EW13), followed by a five to ten minutes walk via an underpass to Suntec Singapore

  Walking from MRT Station
  - 1 min from Promenade and Esplanade Station
  - 5 – 10 mins from City Hall MRT

Singapore has one of the most extensive & efficient public transportation systems in the world. With the Mass Rapid Transit (MRT) trains, buses & taxis, travelling in the city and suburbs can be a quick and affordable affair. For a comprehensive guide that includes offline maps, estimated prices & time, download free smart phone app Singapore Map by Street Directory Pte Ltd from Google Play or Apple App Store. If you are using a Blackberry, you can still visit www.streetdirectory.com for the same services.

Getting around Singapore

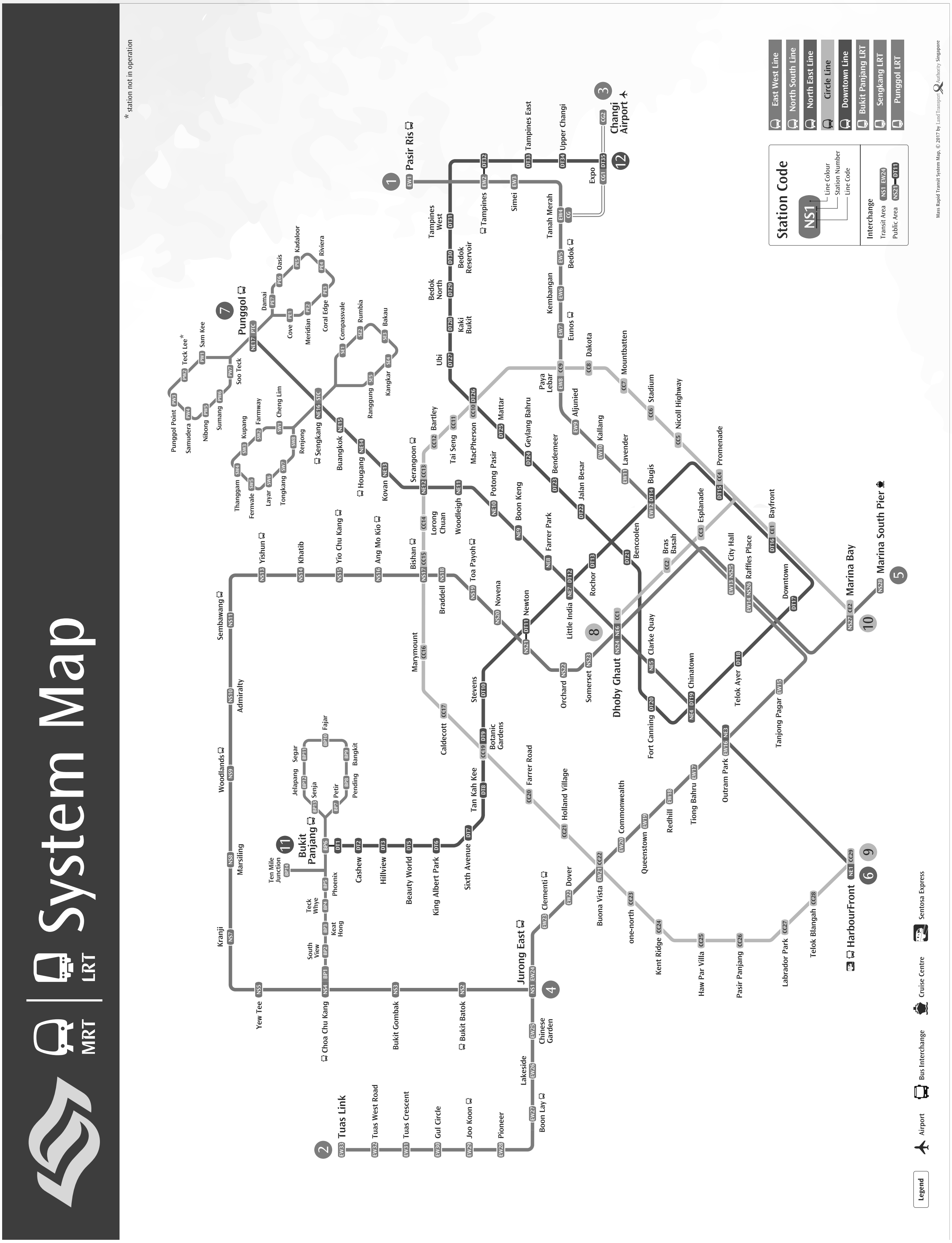
- **Train (MRT)**
  The MRT is a fast and cost-effective way of getting around Singapore. You can take the MRT from Changi Airport Terminal 3 to the city for a just couple of dollars. (If you are arriving at Terminal 1 or 2, you can take the Skytrain to Terminal 3.) If your hotel is not walking distance from any MRT station & you wish to save some dollars from transport, you can consider taking the MRT to the nearest MRT station before taking a taxi. Services operate from about 5:30am and usually end before 1am daily.

- **Bus**
  There are currently more than 300 bus services which run daily from 5.30am to midnight. The suggested app above will direct you to the exact bus-stop and the number to take.

- **Taxi**
  Taxis ply the island round the clock, bringing you wherever you want, anytime you want. However, do note that airport, peak-hour, city area & Electronic Road Pricing (ERP) gantry surcharges apply.

- **Maps, Apps & City Guides**
  Have ready-access information on everything about Singapore in the palm of your hands! From places of interests, upcoming events, food guides to booking of transportation services, this mobile app (Singapore Travel Guide) will ensure that you will not miss any highlights and happenings during your stay in Singapore.

SINGAPORE MASS RAPID TRANSIT MAP



Asia Oceania Geosciences Society
www.asiaoceania.org

European Geosciences Union

The Second AOGS-EGU Joint Conference on:

New Dimensions for Natural Hazards in Asia

Yogyakarta, Indonesia
Four days during September or October 2020

Email enquiries to nathazards@meetmatt.net

Picture by Kanenori

Organizer:

Supported By:

Secretariat:

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