

## PERSONNEL

Principal Investigator

KENJI NAKAMURA

Professor, Hydrospheric Atmospheric Research Center,  
Nagoya University  
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## EDUCATION

1972: B. S. Degree in Geophysics, University of Tokyo

1974: M. S. Degree in Geophysics, University of Tokyo

1978: Ph. D. in Geophysics, University of Tokyo

## TITLE-POSITION

1977-1987	Scientist, Satellite Communications Section, Kashima Space Research Center, Radio Research Laboratory (present: Communications Research Laboratory, Japan)
(1985-1987)	Universities Space Research Association resident associate at NASA/Goddard Space Flight Center, Greenbelt, MD, USA
1987-1990	Microwave Remote Sensing Section, Applications Division, Communications Research Laboratory
1990-1993	Section Chief, Earth Environment Section, Kashima Space Center, Communications Research Laboratory
1993-1994	Section Chief, Microwave Remote Sensing, Earth Environment Division, Communications Research Laboratory
1994-2001	Professor, Institute for Hydrospheric-Atmospheric Sciences, Nagoya University
2001-2005	Professor, Director, Hydrospheric Atmospheric Research Center, Nagoya University
2005-present	Professor, Hydrospheric Atmospheric Research Center, Nagoya University
April 2011-	Director, Hydrospheric Atmospheric Research Center, Nagoya University

## RESEARCH ACTIVITIES

His doctorate thesis is on a theoretical investigation of the wave-mean flow interaction. After joining the Communications Research Laboratory, Japan, he engaged in a space to earth radio propagation experiment using geostationary test satellites. The studies evolved into microwave remote sensing technique, especially rain radar technique. The study included multi-wavelength and dual-polarization radar techniques. During two-year stay at NASA Goddard Space Flight Center, he performed an airborne dual-wavelength rain radar experiment which provided invaluable result for the current Tropical Rainfall Measuring Mission (TRMM) and future spaceborne rain radar development. Currently, he is engaged in the TRMM project and the Global Precipitation Measurement (GPM) project. He has also led the Lower Atmosphere and Precipitation Study (LAPS) project of JST/CREST for 2001-2006. The objective of LAPS was to clarify the interaction between the planetary boundary layer and precipitation system.

## MEMBERSHIP OF SCIENTIFIC SOCIETIES

Meteorological Society of Japan, The American Meteorological Society, The Remote Sensing Society of Japan

## PUBLICATIONS

Yamamoto, M. K., and K. Nakamura, 2010: Typical patterns of microwave signatures and vertical profiles of precipitation in the mid-latitudes from TRMM data. *J. Applied Meteorol. Climatol.* (accepted)

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D. Short, and K. Nakamura, 2010: Effect of TRMM orbit boost on radar reflectivity distributions. *J. Atmos. Oceanic Technol.*, 27, 1247-1254.

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Singh P., K. Nakamura, 2009: Diurnal variation in summer precipitation over the central Tibetan Plateau, *J. Geophys. Res.*, 114, D20107, doi:10.1029/2009JD011788.

Radhakrishna, B., T. Narayana Rao, D. Narayana Rao, N. Prabhakara Rao, K. Nakamura, and Ashok Kumar Sharma, 2009: Spatial and seasonal variability of raindrop size distributions in southeast India. *J. Geophys. Res.*, 114, D04203, doi:10.1029/2008JD011226.

Rao, D. N., M. V. Ratnam, S. Mehta, D. Nath, S. Ghouse Basha, V. V. M. Jagannadha Rao, B. V. Krishna Murthy, T. Tsuda, and K. Nakamura, 2009: Validation of the COSMIC radio occultation data over Gadangi (13.48N, 79.2E): A tropical region. *Terr. Atmos. Ocean. Sci.*, 20(1), 59-70, doi:10.3319/TAO2008.01.23.01(F3C).

Short, D. A., M. Hirose, and K. Nakamura: 2009: An interpretation of TRMM radar observations of shallow convection with a rain cell model. *J. Meteor. Soc. Japan*, 87A, 53-66.

Hirose, M., R. Oki, D. A. Short, and K. Nakamura, 2009: Regional characteristics of scale-based precipitation systems from 10-year TRMM PR data. *J. Meteor. Soc. Japan*, 87A, 353-368.

Suzuki, S., K. Shiokawa, K. Hosokawa, K. Nakamura, and W. K. Hocking, 2009: Statistical characteristics of polar cap mesospheric gravity waves observed by an all-sky airglow imager at Resolute Bay, Canada. *J. Geophys. Res.*, 114, A01311, doi:10.1029/2008JA013652.

Tanaka, H., T. Hiyama, and K. Nakamura, 2008: Turbulent flux observations at the tip of a narrow cape on Miyako Island in Japan's Southwestern Islands, *J. Meteor. Soc. Japan*, 86, 699-717.

Pham, N. T., K. Nakamura, F. A. Furuzawa, and S. Satoh, 2008: Characteristics of Low Level Jets over Okinawa in the Baiu and post-Baiu Seasons revealed by Wind Profiler Observations. *J. Meteor. Soc. Japan*. 86(5), 699-717.

Endo, S. T. Shinoda, H. Tanaka, T. Hiyama, K. Tsuboki, H. Uyeda, and K. Nakamura, 2008: Characteristics of vertical circulation in the convective boundary layer over the Huaihe River Basin in China in the early Summer of 2004. *J. Applied Climate Meteor. Climatol.*, 47, 2911-2928.

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Suzuki, S., K. Shiokawa, Y. Otsuka, T. Ogawa, K. Nakamura, and T. Nakamura, 2007: A concentric gravity wave structure in the mesospheric airglow images, *J. Geophys. Res.*, 112, D02102, doi: 10.1029/2005JD006558.

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Yamamoto, M. K., A. Higuchi, and K. Nakamura, 2006: Vertical and horizontal structure of winter precipitation systems over the northwestern Pacific using TRMM data. *J. Geophys. Res.*, 111, D13108, doi:10.1029/2005JD006412.

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Kummerow, C. et al. (計 27 名) , The status of the Tropical Rainfall Measuring Mission (TRMM) after two years in orbit, *J. Applied Meteor.*, 39, 1965-1982, 2000.

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Nakamura, K. and H. Inomata: Rain observation by an X- and Ka-band dual-wavelength radar. *J. Meteor. Soc. Japan*, 68(5), 509-521, 1990.

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Meneghini, R., K. Nakamura, C.W. Ulbrich and D. Atlas: Experimental tests of methods for the measurement of rainfall rate using an airborne dual-wavelength radar. *J. Atmos. Oceanic Technol.*, 1.6, 637-651, 1989.

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