

# CURRICULUM VITAE

**Joong Bae Ahn**

**Pusan National University**

College of Natural Sciences  
Department of Atmospheric Sciences  
Busan, 609-735, South Korea  
Phone : (51)-510-2290  
e-mail : [jbahn@pusan.ac.kr](mailto:jbahn@pusan.ac.kr)

Fax : (51) -515-1689  
home page: <http://www.cilmate-prediction.org/>

**CAREER INTERESTS**

- |   |   |                                  |
|---|---|----------------------------------|
| · Climate Modeling and Analysis                     | · | Long-term Weather Prediction     |
| · Large-scale Climate Variation and Climate Changes | · | Regional Dynamics and Simulation |

**EDUCATION**

OREGON STATE UNIVERSITY, Corvallis, Oregon  
Ph. D. in Atmospheric Sciences, December 1990  
Title of Theses: A study of El Nino/Southern Oscillation: Numerical Experiment  
and Data Analysis.

SEOUL NATIONAL UNIVERSITY, Seoul, Korea  
M. S. in Meteorology, February 1984  
Title of Thesis: The Limited Area Energy Budget Associated with an Extratropical  
Cyclone Developed over Japan Sea.

YONSEI UNIVERSITY, Seoul, Korea  
B. S. in Meteorology, February 1981

**WORK EXPERIENCE**

PROFESSOR, March 1991 - present  
Department of Atmospheric Sciences  
Pusan National University, Pusan, Korea

CHAIRMAN, December 1993 – 1995, August 2005 – February 2008  
Department of Atmospheric Sciences  
Pusan National University, Pusan, Korea

EXCHANGE SCHOLAR, January 1996 – February 1997, August 2003-August 2004  
Department of Land, Air and Water Resources  
University of California at Davis, U. S. A.

RESEARCH SCIENTIST, June 1984 - August 1985  
Physical Oceanography Laboratory  
Korea Ocean Research and Development Institute  
Korea Advanced Institute of Science and Technology, Seoul, Korea

## ACTIVITIES

President, Korean Meteorological Society (Jan, 2014 – Dec. 2015)  
Climate Change Counseling Special Committee member, Korea Meteorological Administration  
Internal Evaluation Committee member, Korea Meteorological Administration  
Committee member, Joint WMO-IOC Technical Commission on Oceanography and Marine Meteorology

## HONORS and AWARDS

Award from Ministry of Agriculture Food and Rural Affairs / December 31, 2014  
Award from Prime Minister / Korean Government/ March 23, 2006  
Award from Academic Honor / Korean Meteorological Society / October 28, 1999  
Award from Honor / Korea Meteorological Administration / March 23, 1999  
Honor from the Highest Record Student / Yonsei University / Spring term of 1980  
Honor from the High Record Student / Yonsei University / Fall term of 1979

## SCI(E) PAPERS (Recent 5 Years)

1. Lee DY and **Joong Bae Ahn**, 2016: Future change in the frequency and intensity of wintertime North Pacific blocking in CMIP5 models, *International Journal of Climatology*, doi:10.1002/joc.4878.
2. **Ahn, Joong Bae** and JL Lee, 2016: A new multimodel ensemble method using nonlinear genetic algorithm: An application to boreal winter surface air temperature and precipitation prediction, *Journal of Geophysical Research: Atmospheres*, doi:10.1002/2016JD025151.
3. Im ES, YW Choi and **Joong Bae Ahn**, 2016: Robust intensification of hydroclimatic intensity over East Asia from multi-model ensemble regional projections, *Theoretical and Applied Climatology*, doi:10.1007/s00704-016-1846-2.
4. Jeong HI and **Joong Bae Ahn**, 2016: A new method to classify ENSO events into eastern and central Pacific types, *International Journal of Climatology*, doi:10.1002/joc.4813.
5. Hur JN and **Joong Bae Ahn**, 2016: Assessment and prediction of the first-flowering dates for the major fruit trees in Korea using a multi-RCM ensemble, *International Journal of Climatology*, doi:10.1002/joc.4800.
6. **Ahn, Joong Bae**, SR Jo, MS Suh, DH Cha, DK Lee, SY Hong, SK Min, SC Park, HS Kang, KM Shim, 2016: Changes of Precipitation Extremes over South Korea Projected by the 5 RCMs under RCP Scenarios, *Asia-Pacific Journal of Atmospheric Sciences*, Vol. 52, No.2, 223-236.
7. Choi YW, **Joong Bae Ahn**, MS Suh, DH Cha, DK Lee, SY Hong, SK Min, SC Park and HS Kang, 2016: Future Changes in Drought Characteristics over South Korea Using Multi Regional Climate Models with the Standardized Precipitation Index, *Asia-Pacific Journal of Atmospheric Sciences*, Vol.52, No. 2, 209-222.
8. Lee DH, SK Min, CY Park, MS Suh, **Joong Bae Ahn**, DH Cha, DK Lee, SY Hong, SC Park and HS Kang, 2016: Time of Emergence of Anthropogenic Warming Signals in the Northeast Asia Assessed from Multi-Regional Climate Models, *Asia-Pacific Journal of Atmospheric Sciences*, Vol.52, No.2, 129-137.
9. Cha DH, DK Lee, CS Jin, GY Kim, YH Choi, MS Suh, **Joong Bae Ahn**, SY Hong, SK Min, SC Park and HS Kang, 2016: Future Changes in Summer Precipitation in Regional Climate Simulations over the Korean Peninsula Forced by Multi-RCP Scenarios of HadGEM2-AO, *Asia-Pacific Journal of Atmospheric Sciences*, Vol.52, No.2, 139-149.
10. Oh SG, MS Suh, YS Lee, **Joong Bae Ahn**, DH Cha, DK Lee, SY Hong, SK Min, SC Park and HS Kang, 2016: Projections of High Resolution Climate Changes for South Korea Using Multiple-Regional Climate Models Based on Four RCP Scenarios. Part 2: Precipitation, *Asia-Pacific Journal of Atmospheric Sciences*, Vol.52, No.2, 171-189.
11. Suh MS, SG Oh, YS Lee, **Joong Bae Ahn**, DY Cha, DK Lee, SY Hong, SK Min, SC Park

- and HY Kang, 2016: Projections of High Resolution Climate Changes for South Korea Using Multiple-Regional Climate Models Based on Four RCP Scenarios. Part 1: Surface Air Temperature, *Asia-Pacific Journal of Atmospheric Sciences*, Vol.52, No.2, 151-169.
12. Park H-J and **Joong Bae Ahn**, 2016: Combined effect of the Arctic Oscillation and the Western Pacific pattern on East Asia winter temperature, *Climate Dynamics*, Vol.46, No9, 3205-3221.
  13. JY Hong, **Joong Bae Ahn** and JG Jhun, 2016: Winter climate changes over East Asian region under RCP scenarios using East Asian winter monsoon indices, *Climate Dynamics*, doi:10.1007/s00382-016-3096-5.
  14. Choi Y.-W., **Joong Bae Ahn**, and V. N. Kryjov, 2016: November Seesaw in Northern Extratropical Sea Level Pressure and its Linkage to the Preceding Wintertime Arctic Oscillation, *International Journal of Climatology*, Vol.36, No.3, 1375-1386.
  15. Kang S. C., **Joong Bae Ahn**, 2015: Global energy and water balances in the latest reanalysis, *Asia-Pacific Journal of Atmospheric Sciences*, Vol.51, No.4, 293-302.
  16. Kim H.-J., and **Joong Bae Ahn**, 2015: Improvement in Prediction of Arctic Oscillation with a Realistic Ocean Initial Condition in a CGCM, *Journal of Climate*, Vol.28, No.22, 8951-8967.
  17. Kim G.-Y., **Joong Bae Ahn**, V. N. Kryjov, S.-J. Sohn, W.-T. Yun, R. Graham, R. K. Kolli, A. Kumar, and J.-P. Ceron, 2015: Global and regional skill of the seasonal predictions by WMO Lead Centre for Long-Range Forecast Multi-Model Ensemble, *International Journal of Climatology*, Vol.36, No.4, 1657-1675.
  18. **Ahn, Joong Bae**, J.-Y. Hong, and K.-M. Shim, 2015: Agro-climate changes over Northeast Asia in RCP scenarios simulated by WRF, *International Journal of Climatology*, Vol.36, No.3, 1278-1290.
  19. Im E.-S. **Joong Bae Ahn**, and S. Jo, 2015: Regional climate projection over South Korea simulated by the HadGEM2-AO and WRF model chain under RCP emission scenarios, *Climate Research*, Vol. 63, p. 249-266.
  20. Hong J.-Y., and **Joong Bae Ahn**, 2015: Changes of Early Summer Precipitation in the Korean Peninsula and Nearby Regions Based on RCP Simulations, *Journal of Climate*, Vol.28, No.9, p.3557-3578.
  21. Hur J., and **Joong Bae Ahn**, 2015: Seasonal Prediction on Regional Surface Temperature and First-flowering Date over South Korea, *International Journal of Climatology*, Vol.35, No.15, 4791-4801.
  22. Lee D. Y., **Joong Bae Ahn**, and J.-H. Yoo, 2015: Enhancement of seasonal prediction of East Asian summer rainfall related to western tropical Pacific convection, *Climate Dynamics*, Vol.45, No.3-4, p.1025-1042.
  23. Hur J., and **Joong Bae Ahn**, 2015: The change of first-flowering date over South Korea projected from downscaled IPCC AR5 simulation: peach and pear, *International Journal of Climatology*, Vol.35, No.8, p.1926-1937.
  24. Sun J., and **Joong Bae Ahn**, 2015: Dynamical seasonal predictability of the Arctic Oscillation using a CGCM, *International Journal of Climatology*, Vol.35, No.7, p.1342-1353.
  25. Jeong H.-I., **Joong Bae Ahn**, J.-Y. Lee, A. Alessandri, and H. H. Hendon, 2015: Interdecadal change of interannual variability and predictability of two types of ENSO, *Climate Dynamics*, Vol.44, No.3-4, p.1073-1091.
  26. Jo S., and **Joong Bae Ahn**, 2015: Improvement of CGCM Prediction for Wet Season Precipitation over Maritime Continent Using a Bias Correction Method, *International Journal of Climatology*, doi: 10.1002/joc.4232.
  27. **Ahn, Joong Bae**, and H.-J. Kim, 2014: Improvement of 1-month lead predictability of the wintertime AO using a realistically varying solar constant for a CGCM, *Meteorological Applications*, Vol.21. No.2, p.415-418.
  28. Park, Y.-J., and **Joong Bae Ahn**, 2014: Characteristics of atmospheric circulation over East Asia associated with summer blocking, *Journal of Geophysical Research*, Vol.119, No.2, p.726-738.
  29. Kang. S., J. Hur, and **Joong Bae Ahn**, 2014: Statistical downscaling methods based on APCC multi-model ensemble for seasonal prediction over South Korea, *International Journal of Climatology*, Vol.34, No.14, p.3801-3810.

30. Gerelchuluun B., and **Joong Bae Ahn**, 2014: Air temperature distribution over Mongolia using dynamical downscaling and statistical correction, *International Journal of Climatology*, Vol. 34, No.7, p.2464-2476.
31. Hur J., **Joong Bae Ahn**, and K.-M. Shim, 2014: The change of cherry first-flowering date over South Korea projected from downscaled IPCC AR5 simulation, *International Journal of Climatology*, Vol. 34, No. 7, p.2308-2319.
32. Kang S., E.-S. Im, and **Joong Bae Ahn**, 2014: The impact of two land-surface schemes on the characteristics of summer precipitation over East Asia from the RegCM4 simulations, *International Journal of Climatology*, Vol.34, No.15, p.3986-3997.
33. Sohn S.-J., **Joong Bae Ahn**, and C.-Y. Tam, 2013: Six month-lead downscaling prediction of winter to spring drought in South Korea based on a multimodel ensemble, *Geophysical Research Letters*, Vol.40, No.3, p.579-583.
34. Lee D.-Y., **Joong Bae Ahn**, and K. Ashok, 2013: Improvement of Multimodel Ensemble Seasonal Prediction Skills over East Asian Summer Monsoon Region Using a Climate Filter Concept, *Journal of Applied Meteorology and Climatology*, Vol.52, p.1127-1138.
35. Sohn S.-J., C.-Y. Tam, and **Joong Bae Ahn**, 2013: Development of a multimodel-based seasonal prediction system for extreme drought and floods: a case study for South Korea, *International Journal of Climatology*, Vol.33, No.4, p.793-805.
36. Lee D.-Y., **Joong Bae Ahn**, K. Ashok, and A. Alessandri, 2013: Improvement of grand multimodel ensemble prediction skills for the coupled models of APCC/EMSEMBLES using a climate filter, *Atmospheric Science Letters*, Vol.14, No.3, p.139-145.
37. **Ahn, Joong Bae**, J. Lee, and E.-S. Im, 2012: The Reproducibility of Surface Air Temperature over South Korea Using Dynamical Downscaling and Statistical Correction, *Journal of the Meteorological Society of Japan*, Vo. 90, No. 4, p.493-507.
38. Sohn S.-J., C.-Y. Tam, K. Ashok, and **Joong Bae Ahn**, 2012: Quantifying the reliability of prediction datasets for monitoring large-scale East Asian precipitation variations, *International Journal of Climatology*, Vol.32, No.10, p.1520-1526.
39. Jeong H.-I., D.-Y. Lee, K. Ashok, **Joong Bae Ahn**, J.-Y. Lee, J.-J. Luo, J.-K. E. Schemm, H. H. Hendon, K. Braganza, and Y.-G. Ham, 2012: Assessment of the APCC coupled MME suite in predicting the distinctive climate impacts of two flavors of ENSO during boreal winter, *Climate Dynamics*, Vol.39, No.1-2, p. 475-493.
40. Kim H.-J., and **Joong Bae Ahn**, 2012: Possible impact of the autumnal North Pacific SST and November AO on the East Asian winter temperature, *Journal of Geophysical Research*, Vol.117, No. D12, doi: 10.1029/2012JD017527.
41. You J.-E., and **Joong Bae Ahn**, 2012: The anomalous structures of atmospheric and oceanic variables associated with the frequency of North Pacific winter blocking, *Journal of Geophysical Research*, Vol.117, No. D11, doi: 10.1029/2012JD017431.
42. Sohn S.-J., Y.-M. Min, J.-Y. Lee, C.-Y. Tam, I.-S. Kang, B. Wang, **Joong Bae Ahn**, and T. Yamagata, 2012: Assessment of the long-lead probabilistic prediction for the Asian summer monsoon precipitation (1983-2011) based on the APCC multimodel system and a statistical model, 2012: *Journal of Geophysical Research*, Vol.117, No. D4, doi: 10.1029/2011JD16308.
43. Im E.-S., **Joong Bae Ahn**, and D.-W. Kim, 2012: An Assessment of Future Dryness over Korea Based on the ECHAM5-RegCM3 Model Chain under A1B Emission Scenario, *Asia-Pacific Journal of Atmospheric Sciences*, Vol.48, No.4, p.325-337.
44. Sun J., and **Joong Bae Ahn**, 2011: A GCM-based Forecasting Model for the Landfall of Tropical Cyclones in China, *Advances in Atmospheric Sciences*, Vol.28, No.5, p.1049-1055.
45. Lee D.-Y., K. Ashok, and **Joong Bae Ahn**, 2011: Toward enhancement of prediction skills of multimodel ensemble seasonal prediction: A climate filter concept, *Journal of Geophysical Research*, Vol.116, No. D6, doi: 10.1029/2010JD014610.
46. Im E.-S., and **Joong Bae Ahn**, 2011: On the Elevation Dependency of Present-day Climate and Future Change over Korea from a High Resolution Regional Climate Simulation, *Journal of the Meteorological Society of Japan*, Vol. 89, No.1, p.89-100.
47. Lee J.-Y., B. Wang, Q. Ding, K.-J. Ha, **Joong Bae Ahn**, A. Kumar, b. Stern, and O. Alves, 2011: How predictable is the northern hemisphere summer upper-tropospheric circulation?, *Climate Dynamics*, Vol.37, No.5, p.1189-1203.