

Post Doctoral Associate, MAS 048650

Doo Sun Park

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Resume:

-Cover letter

I am Doo-Sun Park, a postdoctoral fellow in Seoul National University.
My research interest is tropical cyclone activity.
During my Master and Ph.D. programs, I focused on investigation of spatiotemporal variations in tropical cyclone activity associated with climate variability.
I am good at various statistical methods to examine large data sets.
I have an experience to perform HWRF simulation and to analyze its output.
I would like to extend my knowledge and skill to more dynamics-oriented research, such as air-sea interaction, tropical cyclone intensification, and extratropical transition.

Thank you for your consideration.

Yours sincerely,
Doo-Sun Park

-Resume

Education

? Ph.D. in Earth and Environmental Sciences, Seoul National University, Seoul, Republic of Korea, Aug. 2013
Thesis title: Long-term changes in tropical cyclone intensity and its impacts on coastal countries of East Asia
? M.Sc. in Earth and Environmental Sciences, Seoul National University, Seoul, Republic of Korea, Feb. 2008
Thesis title: Decadal oscillation of summertime tropical cyclone genesis frequency between the South China Sea and the Philippine Sea
? B.Sc. in Atmospheric Sciences, Seoul National University, Seoul, Republic of Korea, Feb. 2006

?Training Experiences

? 18-21 Dec. 2013, Attendee, 5th International Winter School and Workshop on Climate/Environmental Change, Seoul, Republic of Korea
Theme: Terrestrial Carbon and Water Cycles under a Changing Climate: Observations, Modeling, and Their Analyses
? 2 Nov.-9 Dec. 2012, Visiting Student, National Centers for Environmental Prediction, College Park, MD, USA
Advisors: Dr. Young C. Kwon and Dr. Vijay Tallapragada
Research topic: (1) to develop a seasonal forecast system for frequency and intensity of tropical cyclone in the western North Pacific and North Atlantic by using statistical-dynamical model, (2) to evaluate spatial distribution of forecasting skill of ??HWRF.
? 18-20 Dec. 2012, Attendee, 4th International Winter School and Workshop on Climate/Environmental Change, Seoul, Republic of Korea
Theme: Ecosystem and Climate Change: Observations, Modeling, and Their Analyses
? 4-7 Jan. 2011, Attendee, 2nd International Winter School and Workshop on Climate/Environmental Change, Seoul, Republic of Korea
Theme: Climate Sensitivity and Feedback
? 5-10 Apr. 2010, Trainee, 4th East Asia WRF Workshop and Tutorial, Seoul, Republic of Korea
? 12-13 Jan. 2010, Attendee, International Winter School on Climate/Environmental Change, Seoul, Republic of Korea
Theme: Climate/Environmental Change

Publications

? Park, D.-S. R., C.-H. Ho, C.-H. Nam, K.-H. Chang, S. Park, and H.-S. Kim (2013) Reduced vulnerability to tropical cyclone in South Korea probably due to improved national infrastructures of disaster mitigation, Climatic Change, (to be submitted).
? Jin, C.-S., C.-H. Ho, D.-S. R. Park, W. Choi, D. Kim, J.-H. Lee, K.-H. Chang, and K.-R. Kang (2013) Development of the automated prediction system for seasonal tropical cyclone activity over the western North Pacific and its evaluation for early predictability, Atmosphere, (accepted) [written in Korean with English abstract].
? Park, D.-S. R., C.-H. Ho, and J.-H. Kim (2013) Growing threat of intense tropical cyclones to East Asia over the period 1977-2010, Environmental Research Letters, (accepted).
? Seo, J., W. Choi, D. Youn, D.-S. R. Park, and J. Y. Kim (2013) Relationship between the stratospheric quasi-biennial oscillation and spring rainfall in the western North Pacific, Geophysical Research Letters, 40, 1-5.
? Park, D.-S. R., C.-H. Ho, J.-H. Kim, and H.-S. Kim (2013) Spatially inhomogeneous trends of tropical cyclone intensity over the

western North Pacific for 1977-2010, *Journal of Climate*, 26, 5088-5101.

? Park, D.-S. R., C.-H. Ho, J.-H. Kim, and H.-S. Kim (2011) Strong landfall typhoons in Korea and Japan in a recent decade, *Journal of Geophysical Research*, 116, D07105, doi:10.1029/2010JD014801.

? Park, D.-S., C.-H. Ho, and J. Hwang (2008) Influence of typhoon landfall and its track characteristics in Gyeongsangbuk-do, *Atmosphere*, 18, 525-532 [written in Korean with English abstract].

Patents

? Estimate methods of human and property losses by using gust and downpour indices of typhoons, Republic of Korea, (to be submitted).

? Spatial distribution of track and intensity forecast errors of tropical cyclones, Republic of Korea, (to be submitted).

Conference presentations (as a presenter in the international conferences)

? Park, D.-S. R., C.-H. Ho, C.-H. Nam, K.-H. Chang, S. Park, and H.-S. Kim: Reduced vulnerability to tropical cyclone in South Korea, 5th International Winter School and Workshop on Climate/Environmental Change, Seoul, Republic of Korea, 18-21 December 2013.

? Park, D.-S. R., C.-H. Ho, and J.-H. Kim: Increasing landfall intensity of typhoons over East Asia, the 6th China-Korea Joint Workshop on Tropical Cyclones, Shanghai, China, 26-28 May 2013.

? Park, D.-S. R., C.-H. Ho, J.-H. Kim, and H.-S. Kim: Spatially inhomogeneous trends of tropical cyclone intensity over the western North Pacific 1977-2010, 4th International Winter School and Workshop on Climate/Environmental Change, Seoul, Republic of Korea, 18-20 December 2012.

? Park, D.-S. R., and C.-H. Ho: Long-term changes in typhoon intensity over the sub-region of the western North Pacific, 92nd American Meteorological Society Annual Meeting, New Orleans, Louisiana, 22-26 January 2012.

? Park, D.-S. R., C.-H. Ho, and H.-S. Kim: Regional Characteristics of Long-term Changes in Typhoon Intensity over the Western North Pacific, International Conference on Climate Change Science, Beijing, China, 18-20 October 2011.

? Park, D.-S. R., C.-H. Ho, J.-H. Kim, and H.-S. Kim: Strong landfall typhoons in Korea and Japan in a recent decade, 2nd International Winter School and Workshop on Climate/Environmental Change, Seoul, Republic of Korea, 4-7 January 2011.

? Park, D.-S. R., C.-H. Ho, J.-H. Kim, and H.-S. Kim: Enhanced typhoon activity over Republic of Korea and Japan in the latest decade, The sixth session of the forum on regional climate monitoring, assessment, and prediction for Asia, Beijing, China, 6-8 April 2010.

? Park, D.-S. R., C.-H. Ho, J.-H. Kim, and H.-S. Kim: Enhanced typhoon activity over Korea and Japan in the latest decade, APN (Asia-Pacific Network for Global Change Research) 15th Inter-Governmental Meeting and Scientific Planning Group Meeting, Busan, Republic of Korea, 15-19 March 2010.

Invited presentations

? Long-term Changes in Tropical Cyclone Intensity and its Impacts on Coastal Countries of East Asia, National Institute of Meteorological Research, Korean Meteorological Administration, Republic of Korea, 14 November 2013.

Grants and Awards

? Basic Research (PI), General Researcher Program, National Research Foundation of Korea, Nov. 2013-Oct. 2015: Spatiotemporal long-term variations in climate extremes and their socioeconomic impacts; focus on drought, downpour, and typhoon.

Fellowships and Honors

? Lotte Scholarship, Lotte Foundation, Mar. 2010-Aug. 2011.

? Seoul National University Honor Scholarship (partial tuition waiver), Seoul National University, Sep. 2009-Feb. 2010.

? Seoul National University Honor Scholarship (partial tuition waiver), Seoul National University, Mar. 2007-Aug. 2007.

? Seoul National University Honor Scholarship (partial tuition waiver), Seoul National University, Mar. 2005-Aug. 2005.

Professional Activities

? Reviewer for: *Climate Dynamics*, *Environmental Research Letters*

? I have been involved in a planning research on "Activation Plan of Subseasonal to Seasonal Prediction" funded by Korean Meteorological Administration since September 2013.

Other skills

? I am good at analyzing large datasets by using various statistical methods (e.g., empirical orthogonal function, singular value decomposition, bootstrap resampling, Mann-Kendall test, changing point analysis, and multi-linear regression).

? I can utilize several programming languages and graphic tools, such as Fortran 77/90, GrADS, NCL, and Surfer. In addition, I am familiar with Linux-based system.

? I have an experience to perform HWRF model simulation and to analyze its output by myself.

? I have an experience to utilize dynamic-statistic hybrid model to predict seasonal tropical cyclone activity.