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Atmospheric and Oceanic Sciences
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EDUCATION

Ph.D., Atmospheric Sciences, Cornell University, 2011
M.S., Meteorology, Peking University, 2007
B.S., Information Management & Information System, Nanjing Institute of Meteorology, 2004

EMPOLYMENT

Associate Research Scholar, NOAA/Geophysical Fluid Dynamics Laboratory, Dec. 2015-present
Postdoctoral fellow, Research Engineering/Scientist Associate II, Jackson School of Geosciences, the University of Texas at Austin, 2011- Nov. 2015

RESEARCH INTERESTS

Climate modeling, aerosol-climate interactions, climate dynamics, land-atmosphere interactions, regional climate change, land surface processes, and carbon cycle

HONORS AND AWARDS

Cornell Fellowship, Cornell University, 2007
Honor of Excellent Student, Peking University, China, 2005
Honor of Excellent Graduate, Nanjing Institute of Meteorology, China, 2004
First-Class Scholarship, 2001-2003, Honor of Excellent Student, 2000-2004, Nanjing Institute of Meteorology, China

PUBLICATIONS

Pu, B., R.E. Dickinson, and R. Fu, 2016: Dynamical connection between low-level winds and interannual variability of Gulf coast precipitation. Submitted to *J. Geophys. Res.-Atmospheres,* in revision.

Fernando, D.N., K. Mo, R. Fu, **B. Pu**, A. Bowerman, B.R. Scanlon, R. S. Solis, L. Yin, R. E. Mace, J. R. Mioduszewski, T. Ren, and K. Zhang, 2016: What caused the spring intensification and winter demise of the 2011 drought over Texas? Submitted to *Clim. Dyn*., accepted.

Pu, B., R. Fu, R.E. Dickinson, and D. N. Fernando, 2016: Why do summer droughts in the southern Great Plains occur in some La Niña years but not others? *J. Geophys. Res.- Atmospheres,* in press.

Pu, B., and R.E. Dickinson, 2014: Diurnal spatial variability of Great Plains summer precipitation related to the dynamics of the low-level jet, *Journal of the Atmospheric Sciences*, **71**, 1807-1817.

Pu, B., and R.E. Dickinson, 2013: Hydrological changes in the climate system from leaf responses to increasing CO_2. *Clim. Dyn*. doi:10.1007/s00382-013-1781-1.

Pu, B., and R.E. Dickinson, 2012: Examining vegetation feedbacks on global warming in the Community Earth System Model. *J. Geophys. Res.*, **117**, D20110, doi:10.1029/2012JD017623.

Pu, B., E. K. Vizy, and K. H. Cook, 2012: Warm season response over North America to a shutdown of the Atlantic meridional overturning circulation and CO_2 increases. *J. Climate*, **25**, 6701-6720.

Pu, B., and K. H. Cook, 2012: Role of the West African westerly jet in Sahel precipitation variations on interannual and decadal time scales. *J. Climate*, **25**, 2880-2896.

Pu, B., and K. H. Cook, 2010: Dynamics of the West African westerly jet. *J. Climate*, **23**, 6263-6276

Pu, B., S. Wang, and J. Zhu, 2008: An East Asian teleconnection mode in association with summer precipitation in Eastern China. *Advances in Climate Change Research (in Chinese)*, **4** (1), 17-20.

Pu, B., S. Wang, and J. Zhu, 2007: Spatial pattern of seasonal precipitation over Eastern China. *Acta Scientiarum Naturalium Universitatis Pekinensis (in Chinese)*, **43** (5), 620-629.

Pu, B., X. Wen, S. Wang, and J. Zhu, 2007: Diagnostic and modeling study of two basic modes of surface air temperature and its variations in China. *Advances in Earth Science (in Chinese)*, **22** (5), 456-467.

PRESENTATIONS

December 2014	"Hydrological changes in the climate system from leaf responses to increasing CO_2" (poster), the American Geophysical Union fall meeting, San Francisco, CA
October 2014	"Analysis on dry and non-dry conditions in the U.S. Southern Great Plains in La Niña years", NOAA's 39th Climate Diagnostics and Prediction Workshop, St. Louis, Missouri
December 2013	"Diurnal spatial variability of Great Plains summer precipitation related to the dynamics of the low-level jet" (poster), American Geophysical Union fall meeting, San Francisco, CA
October 2013	"Spatial variability of summer precipitation related to the dynamics of the Great Plains low-level jet", Water Forum III: Droughts and Other Extreme Weather Events, the University of Texas at Austin, TX
October 2012	"Vegetation feedbacks that may reduce summer precipitation over the northern central U.S.", Water Forum II: Texas Drought and Beyond, Center for Integrated Earth System Science, the University of Texas at Austin, TX
June 2012	"Vegetation feedbacks on hydrological cycles in a double CO_2 climate" (poster), 17th Annual Community Earth System Model (CESM) workshop, Breckenridge, CO
March 2012	"Vegetation feedbacks that amplify global warming" (poster), CESM land model working group meeting, Boulder, CO
December 2011	"A modeling study of vegetation feedbacks on a doubled CO_2 climate" (poster), the American Geophysical Union fall meeting, San Francisco, CA
May 2010	"Dynamics of the West African westerly jet and its association with Sahel precipitation", Africa Climate and Weather Session, the 29th Conference on Hurricanes and Tropical Meteorology, Tucson, AZ
December 2008	"Dynamics of the West African westerly jet" (poster), the American Geophysical Union fall meeting, San Francisco, CA
January 2008	"Effects of Indian Ocean SST on East African precipitation", Graduate student symposium, Department of Earth and Atmospheric Sciences, Cornell University, Ithaca, NY
November 2006	"Studies of seasonal variations of precipitation pattern over Eastern China", Seminar on Interdecadal Variations of the East Asian Summer Monsoon and its Mechanism, Xiamen, China
October 2006	"Diagnostic and modeling study of the two basic modes of surface air temperature and its variations in China", 1st Graduate Students Forum of Chinese Meteorological Society, Chengdu, China

TEACHING EXPERIENCE

- Aug. 2009-Dec. 2009 Teaching assistant for "Climate Change Dynamics: Present and Future", Jackson School of Geosciences, the University of Texas at Austin, Austin, TX
- Sep. 2006- Jan. 2007 Teaching assistant for the course "Introduction to Computing", School of Physics, Peking University, Beijing, China

COMMUNITY SERVICE

- Reviewer for Climate Dynamics, Journal of Climate, Journal of Geophysical Research-Atmospheres, Geophysical Research Letters, Remote Sensing, Advances in Meteorology, Proceedings of the National Academy of Sciences, Advances in Atmospheric Sciences, Energies
- Judge for American Geophysical Union Outstanding Student Paper Award (Atmospheric Sciences Section) at the 2011 and 2013 fall meetings