

Wenchang Yang

Postdoctoral Scholar

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Research Interests

East African Hydroclimate, ITCZ Variability, Arctic Climate, Global Monsoons, Storm Tracks, Idealized Climate Models

Education

Ph.D. in Atmospheric Sciences, Columbia University, 2014

Thesis: *The Hydroclimate of East Africa: Seasonal cycle, Decadal Variability, and Human-induced Climate Change*. Advisors: Prof. Richard Seager and Prof. Mark A. Cane

M.Phil., Columbia University, 2011

M.S., Peking University, China, 2007

B.S., Peking University, China, 2004

Publications

7. **Yang, W.**, G. Magnusdottir (2016): Interannual Signature in Daily ITCZ States in the East Pacific in Boreal Spring. *J. Clim.*, **29**, 8013–8025, doi: 10.1175/JCLI-D-16-0395.1.
6. **Yang, W.**, R. Seager, M. A. Cane, and B. Lyon (2015): The Rainfall Annual Cycle Bias over East Africa in CMIP5 Coupled Climate Models. *J. Clim.*, **28**, 9789–9802, doi: 10.1175/JCLI-D-15-0323.1
5. **Yang, W.**, R. Seager, M. A. Cane, and B. Lyon (2015): The Annual Cycle of the East African Precipitation. *J. Clim.*, **28**, 2385–2404, doi: 10.1175/JCLI-D-14-00484.1.
4. **Yang, W.**, R. Seager, M. A. Cane, and B. Lyon (2014): The East African Long Rains in Observations and Models. *J. Clim.*, **27**, 7185–7202, doi: 10.1175/JCLI-D-13-00447.1.
3. **Yang, W.**, R. Seager, and M. A. Cane (2013): Zonal Momentum Balance in the Tropical Atmospheric Circulation During the Global Monsoon Mature Months. *J. Atmos. Sci.*, **70**, 583–599, doi: 10.1175/JAS-D-12-0140.1.
2. Nie, J., P. Wang, **W. Yang**, and B. Tan (2008): Northern Hemisphere Storm Tracks in Strong AO Anomaly Winters. *Atmos. Sci. Lett.*, **9**, 153–159, doi: 10.1002/asl.186.
1. **Yang, W.**, J. Nie, P. Lin, and B. Tan (2007): Baroclinic Wave Packets in an Extended Quasi-geostrophic Two-layer Model. *Geophys. Res. Lett.*, **34**, L05822, doi: 10.1029/2006GL029077.

Manuscripts

1. **Yang, W.**, G. Magnusdottir: The Arctic Warming Associated with Extreme Moisture Transports, in preparation.

Research Experience

Postdoctoral Scholar, UC Irvine, 2015/01 – Present

Advisor: Prof. Gudrun Magnusdottir

Research Assistant, Columbia University, 2007/09 – 2014/10

Advisors: Prof. Richard Seager and Prof. Mark A. Cane

Research Assistant, Peking University, China, 2004/09 – 2007/06

Advisor: Prof. Benkui Tan

Teaching Experience

Teaching Assistant, Columbia University, Fall 2009 and Fall 2008

Course: *Quantitative Models of Climate-Sensitive Natural and Human Systems*

Teaching Assistant, Peking University, China, Spring 2006

Course: *Atmospheric Dynamics*

Presentations

14. Decadal Variability of East African Hydroclimate in Observations and Models and the Implication for the Future Projection, *AOS Seminar*, Peking University, 2016/06/08
13. The East Pacific Double ITCZ during Boreal Spring in Observations (poster), *American Geophysical Union Fall Meeting*, 2015
12. The Hydroclimate of East Africa: Seasonal cycle, Decadal Variability, and Human-induced Climate Change, *PhD Thesis Defense*, Lamont (Seismology Room), 2014/10/27
11. Why is East Africa Drying during the Spring Rainy Season in Recent Decades? *AOCD Seminar Series Fall 2014*, Yale, 2014/09/25
10. East African Precipitation and Droughts: from Decadal Variability to Annual Cycle, *GFDL Seminar*, GFDL, 2014/06/04
9. The Dual Peaked Seasonal Cycle of Precipitation Over Tropical East Africa, *GloDecH Meeting*, Lamont, 2014/05/28
8. The East African Long Rains in Observations and Models (poster), *American Geophysical Union Fall Meeting*, 2013
7. Decadal Variability of the East African Long Rains in Observations and Models, *GloDecH Meeting*, Lamont, 2013/06/12
6. Zonal Momentum Balance in the Tropical Atmospheric Circulation during the Global Monsoon Mature Months (poster), *American Geophysical Union Fall Meeting*, 2012

5. Simulating and Diagnosing the Dynamics of the Global Monsoon in a Simple Tropical Atmosphere Model (poster), *American Geophysical Union Fall Meeting*, 2011
4. Global Monsoon Simulation in a Simple Numerical Model, *Atmosphere-Ocean Science Days*, MIT, 2011/06/20
3. Trends and Patterns of Different Monsoons over the Period of 1979–2007, *Lamont Graduate Oral Meeting*, 2009/04/09
2. Baroclinic Wave Packets in an Extended Quasi-geostrophic Two-layer Model, *Peking University M.S. Thesis Defence Meeting*, 2007/05/26
1. A Numerical Solution to the Quasi-geostrophic Two-layer Model, *Graduate Student Research Meetings of the Department of AOS in Peking University*, 2007/04/19

Professional Service

JOURNAL REVIEWS

Nature Climate Change, Journal of Climate, Journal of the Atmospheric Sciences, Journal of Applied Meteorology and Climatology, Geophysical Research Letters, Journal of Geophysical Research-Atmospheres, Quarterly Journal of the Royal Meteorological Society, International Journal of Climatology, Climate Dynamics

OTHER SERVICE

Judge for the Outstanding Student Paper Awards in the AGU Fall Meeting 2015
Coordinator for the Division of Ocean and Climate Physics Seminars at Lamont, Columbia University 2010–2011

Professional Associations

Member of the American Geophysical Union (AGU)
Member of the American Meteorology Society (AMS)

Awards and Honors

Faculty Fellowship of GSAS, Columbia University, 2007
Second Prize in “Zhong Shengbiao Education Foundation” Student Academic Forum, 2007
May 4th Scholarship, 2004 – 2005
Outstanding Graduate of All Universities in Beijing City, 2004
Outstanding Graduate of Peking University, 2004
Cyrus Tang Foundation Scholarship, 2001 – 2004
Triple-A Student of Peking University, 2001 – 2002
Triple-A Student of High Schools in Jiangsu Province, China, 2000
First Prize in National High School Mathematics Olympiad, Jiangsu, China, 1999
Second Prize in National High School Biology Olympiad, Jiangsu, China, 1999
Third Prize in National High School Physics Olympiad, Jiangsu, China, 1999