

# Wenchang Yang

Postdoctoral Scholar  
Department of Earth System Science  
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## Education

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COLUMBIA UNIVERSITY, NEW YORK CITY, US

Ph.D., Atmospheric Sciences (Minors: Climatology and Physical Oceanography) 2014

Thesis: *The Hydroclimate of East Africa: Seasonal cycle, Decadal Variability, and Human-induced Climate Change*

Advisors: Richard Seager and Mark A. Cane

PEKING UNIVERSITY, BEIJING, CHINA

M.S., Atmospheric Sciences 2007

Thesis: *Baroclinic Wave Packets in the Quasigeostrophic Two-layer Model*

Advisor: Benkui Tan

B.S., Atmospheric Sciences 2004

## Research Interests

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East African Climate, ITCZ Variability, Large-scale Climate Dynamics, Monsoon, Storm Tracks, Baroclinic Wave Dynamics, Idealized Climate Models

## Employment

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UNIVERSITY OF CALIFORNIA, IRVINE, US

Postdoctoral Scholar

Jan. 2015 – Present

COLUMBIA UNIVERSITY, NEW YORK CITY, US

Staff Associate

Nov. 2014 – Dec. 2014

## Publications

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7. 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.*, **submitted**
6. Yang, W. (2015): The Hydroclimate of East Africa: Seasonal cycle, Decadal Variability, and Human induced Climate Change. *Columbia University*, Ph.D. Dissertation, 143p.
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**(2):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**(5):L05822, doi: 10.1029/2006GL029077.

## Presentations

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14. Looking at Different ITCZ States over the East Pacific on Daily Temporal Resolution (Apr 23, 2015, oral), *Group Meeting*, UC Irvine
13. East African Precipitation and Drought (Feb 26, 2015, oral), *Group Meeting*, UC Irvine
12. The Hydroclimate of East Africa: Seasonal cycle, Decadal Variability, and Human-induced Climate Change (October 17, 2014), *PhD Thesis Defense*, Lamont (Seismology Room)
11. Why is East Africa Drying during the Spring Rainy Season in Recent Decades? (September 25, 2014, invited), *AOCD Seminar Series Fall 2014*, Yale
10. East African Precipitation and Droughts: from Decadal Variability to Annual Cycle (June 4, 2014, invited), *GFDL Seminar*, GFDL
9. The Dual Peaked Seasonal Cycle of Precipitation Over Tropical East Africa (May 28, 2014, oral), *GloDecH Meeting*, Lamont
8. The East African Long Rains in Observations and Models (2013, poster), *American Geophysical Union 2013 Fall Meeting*
7. Decadal Variability of the East African Long Rains in Observations and Models (June 12, 2013, oral), *GloDecH Meeting*, Lamont
6. Zonal Momentum Balance in the Tropical Atmospheric Circulation during the Global Monsoon Mature Months (2012, poster), *American Geophysical Union 2012 Fall Meeting*
5. Simulating and Diagnosing the Dynamics of the Global Monsoon in a Simple Tropical Atmosphere Model (2011, poster), *American Geophysical Union 2011 Fall Meeting*
4. Global Monsoon Simulation in a Simple Numerical Model (June 20, 2011, oral), *Atmosphere-Ocean Science Days*, MIT
3. Trends and Patterns of Different Monsoons over the Period of 1979-2007 (April 9, 2009, oral), *Lamont Graduate Oral Meeting*
2. Baroclinic Wave Packets in an Extended Quasi-geostrophic Two-layer Model (May 26, 2007, oral), *Peking University M.S. Thesis Defence Meeting*
1. A Numerical Solution to the Quasi-geostrophic Two-layer Model (April 19, 2007, oral), *Graduate Student Research Meetings of the Department of AOS in Peking University*

## Teaching Experience

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COLUMBIA UNIVERSITY, NEW YORK CITY, NY, US

Teaching Assistant and Lab Instructor

Fall 2009 and Fall 2008

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

Instructors: Mingfang Ting and Tony Barnston

PEKING UNIVERSITY, BEIJING, CHINA

Teaching Assistant and Instructor for Problems and Solutions

Spring 2006

*Atmospheric Dynamics*

Instructor: Benkui Tan

## Computer Skills

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### OPERATING SYSTEMS

OS X, Linux, Microsoft Windows family

### PROGRAMMING LANGUAGES

Python, Matlab, Shell Script, Fortran, C, Ingrid, HTML, Javascript, PHP

### TYPESETTING AND PRODUCTIVITY SOFTWARE

L<sup>A</sup>T<sub>E</sub>X, BibT<sub>E</sub>X, Apple iWork, Microsoft Office

## Professional Memberships

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American Geophysical Union (AGU)

American Meteorology Society (AMS)

## Awards

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Second Prize in "Zhong Shengbiao Education Foundation" Student Academic Forum	2007
May 4th Scholarship	2004 – 2005
Excellent Graduate of Universities in Beijing City	2004
Excellent 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 Contest, China,	1999
Second Prize in National High School Biology Olympics of Jiangsu Province, China	1999
Third Prize in National High School Physics Olympics of Jiangsu Province, China	1999