

## CURRICULUM VITAE

### **RONG FU**

Jackson School of Geosciences, The University of Texas at Austin  
23rd and San Jacinto, Geology Building 6.218, Austin, TX 78713  
Email: [RONGFU@JSG.UTEXAS.EDU](mailto:RONGFU@JSG.UTEXAS.EDU), Phone: 512-232-7932

#### **Educational Background:**

B.S. Meteorology, Department of Geophysics 1984 Beijing University  
Ph.D. Atmospheric Sciences 1991 Columbia University

#### **Professional Experiences:**

Professor, the Jackson School of Geosciences, 2008- present  
The University of Texas at Austin, Austin, TX

Associate Chair, Department of Geological Sciences, The University of Texas at Austin,  
2012-present.

Visiting Chair Professorship, Tsinghua University, 2011-present

Associate Professor, School of Earth Atmospheric Sciences, 1999 - 2008  
Georgia Institute of Technology, Atlanta, GA

Guest Professor: Beijing Normal University, 2007-2011

Assistant Professor, Department of Atmospheric Sciences, 1994-1999  
The University of Arizona, Tucson, AZ

Visiting Scientist, Geophysical Fluid Dynamic Laboratory, 1993-1994  
Princeton University, Princeton, NJ

Post-doctoral researcher, Department of Atmospheric Sciences, 1991-1993  
UCLA, Los Angeles, CA

Graduate Research Assistant, Columbia University 1985-1991

#### **Research Areas:**

Convection, cloud and precipitation processes and their role in climate

Atmospheric transport in the upper troposphere and lower stratosphere

Atmosphere, ocean and land/vegetation interactions

Satellite remote sensing applications and retrievals

**Course Taught:**

*Graduate Courses:*

GEO 391C: Spatial-tempo pattern correlation and visualization of geoscience data, Spring 2014

GEO 387C/391C: Climate system physics, Spring 2009, 2010, 2011, 2012, 2013, 2014

EAS 8803: Land-atmosphere Interaction, Spring 2006, 2008.

EAS 6793: Atmospheric Boundary Layer, Spring 2004, 2005, 2007.

EAS 8803B/CEE 6221 Physical Hydrology, Spring 2003.

EAS 8803C: Climate Seminar, Fall 2004.

EAS 6512: Dynamic Meteorology-II, Spring 2000, 2001, 2002.

ATMO 535: Air Sea Interaction, Spring 1999.

*Undergraduate Courses:*

GEO 371C: Spatial-tempo pattern correlation and visualization of geoscience data, Spring 2014

UGS 302: Science and Myth of the Climate Change, Spring 2011, 2012

GEO 347C/371C: Climate system physics, Spring 2010, 2011, 2013, 2014

GEO 302C: Climate: Past, Present and Future, Spring 2010.

EAS 4410/8803: Climate and Global Change Fall 2007.

EAS 4655/3650: Atmospheric Dynamics, Fall 2006, 2005, 2004, 2003, 2002.

EAS 3650: Earth System Physics, Spring 2000, 2001.

ATMO 300B: Introduction of Dynamics Meteorology. Fall 1997, 1998.

ATMO/GEOL 171: Introductory of Meteorology and Climate, Spring 1996, 1997, 1998.

**Honors:**

NSF CAREER Award, 1995

NASA Mission To Planet Earth New Investigator Award, 1996

The Chinese National Science Foundation (CNSF), Outstanding Oversea-Chinese Scientist Award, 2004

Georgia Institute of Technology Hesbough Award Teaching Fellow, 2004

AGU 2006 Editors' Citation for Excellence in Refereeing for Geophysical Research Letter.

NASA Group Achievement Award, UARS Team. 2007

**Professional Activities:**

***National:***

President-Elect, Global Environmental Change Focus Group, American Geophysical Union (AGU), January 2013-December 2014.

President, Global Environmental Change Focus Group, American Geophysical Union (AGU), January 2015-December 2016.

Panelist: The Economic and Financial Risks of a Changing Climate, An Invitation-Only Conference jointly sponsored by American Advanced Association of Science and Resource For the Future, 12 November 2014, Washington, DC.

AGU Council Member, January 2013-December 2016.

AGU Science Trend Task Force, June-September 2014.

Chair and member, AGU Global Environmental Change Focus Group AGU fellow nomination committee, May 2013, May 2014

Science Steering Committee, The Intra-Americas Seas Study of Climate Processes (IASCLiP), US Climate Variability and Predictability Program (CLIVAR), June 2014-.

National Research Council, Committee on "Understanding and Observing Abrupt Climate Change", October 2012-July 2013.

Co-Chair, the NSF site review panel of the Science and Technology Center for Multiscale Modeling of Atmosphere Processes, Ft. Collins, CO, May 22-23, 2013.

Co-convener: Joint UT Austin, UK Metoffice and NASA JPL Climate Modeling and High Performance Computing Workshop, Austin, Texas, Jan 30<sup>th</sup>-Feb. 1<sup>st</sup>, 2012.

Co-convener: Joint UT Austin, UK Metoffice and Texas State Agencies climate service workshop, Austin, Texas, Feb. 2<sup>nd</sup>, 2012.

The NOAA Modeling, Analysis, Predictions and Projections (MAPP) Program CMIP5 task force, 2012-present.

The NOAA Modeling, Analysis, Predictions and Projections (MAPP) Program drought task force, 2012-present.

Convener: International Workshop on Tibetan Plateau Surface-Troposphere-Stratosphere Interaction (STSI) Cooperation Research, University of Texas at Austin, February 20-21, 2012.

The American Geophysical Union, Meeting Committee, 2010-2012.

Review Panel: NSF Science and Technology Center reverse site visit, Arlington, VA, May 14-15, 2012.

Co-Convener, "GC41 Climate Change and Drought 3: Improved Monitoring and Management to Increase Drought Resilience", AGU Fall Conference, San Francisco, December 5-9, 2011.

Review Panel: NASA ACMAP, Crystal City, Virginia, February 15-16, 2011

Review Panel: NOAA Modeling, Analysis, Prediction and Projection (MAPP) Program, December 3-4, 2010.

Co-convener, the NCAR Advanced Study Program Summer Colloquium "Asia in the 21<sup>st</sup> century", August 1-13<sup>th</sup>, 2010.

Review Panel: NOAA Climate Variability and Predictability, December 8-10, 2009.

National Research Council, Committee on "Challenges and Opportunities in Earth Surface Processes". November 2007 – June 2009.

Review Panel: NASA Modeling, Analysis, and Prediction, November 18-20, 2008.

Convener: "Abrupt change and tipping elements of climate change at decadal to

centennial scales”, AGU Fall Conference, San Francisco, December 10-14, 2007.

Review Panel: NOAA Climate Predictability Program for the Americas, December 2-3, 2007

US CLIVAR Phenomena, Observations & Synthesis Panel, 2007 – 2010.

Review panel: NSF/NOAA/DOE DRICOMP Program, May 2007.

Review panel: NASA CloudSat/Calipso program, December 2006.

Review panel, the NOAA Cooperative Institute for Climate Studies (CICS) at Princeton University, January 18-19, 2006.

Review panel, NASA Carbon cycle Science, May 25-28, 2004.

Review panel, NASA New Investigators Program, Arlington, VA, June 11-13, 2002.

Review Panel: EPA (Environmental Protection Agency) Fellowship, 2001.

Review panel, NSF Faculty Early Career Development Program, Arlington, Virginia, January 11-14, 1999.

US CLIVAR (Climate Variability and Predictability Program) Drought Working Group, 2007-2008

UCAR membership committee, 2004-2006.

NCAR, The Institute of Integrative and Multidisciplinary Earth Studies (TIIMES)  
“Water and biogeochemical cycle” retreat, August 18-22, 2006.

NASA Earth System Scholar Network (ESSN) Technical committee, 2004-2005.

Chair and keynote speaker, NOAA CLIVAR/PACS (Pan American Climate Study) PI (Principle Investigator) meeting, South American Monsoon and Monsoon Modeling Sessions, Maryland, September 6-8, 2000.

Host and organization committee, NOAA Global Office PACS Program Principal Investigator Meeting, Tucson, Arizona, October 6-7, 1998.

NCAR Climate System Model workshops, Boulder and Breckenridge, Colorado, 1997-2006.

NASA EOS (Earth Observing System) Investigators Working Group, 1995-1998

Contributing author, the NASA EOS Science Plan, 1997.

New Global Hydrology initiative of NASA's Mission to Planet Earth Program in the Global Hydrology Workshop, Herndon, Virginia, June 1995.

Science team, NASA Aura, Atmospheric Composition Program, 2005 - present

Science team, NASA Terrestrial Ecology and Carbon Program, 2004 - 2007.

Science team, NASA SeaWinds Program, 2000 – present.

Science team, NASA Global Water and Energy Cycle Program, 2002-2005.

Science team, NASA Upper Atmosphere Research Satellite, 1997-1999.

Science team, NASA Hydro-meteorological Participation in the Large-Scale Biosphere-Atmosphere Experiment in Amazonia, 1999.

Chair, Climate Variability and Change Session, First Symposium of NASA ESSN, September 27-29, 2004.

Co-convener, Special Joint session of O, H, A. B “Ocean-Atmosphere-Land Interaction Studies Using Spacebased Scatterometer”, 2001 Fall AGU Conference, San Francisco, California, December 10-14, 2001.

Co-convener, Special Joint session of A, H and O “Roles of atmosphere, land surface and oceans in determining the monsoon climate,” 1999 Fall AGU Conference, San Francisco, California, December 13-17, 1999.

Organization committee and session chair, 1999 AGU Chapman Water Vapor Conference, Potomac, Maryland, October 12-15, 1999.

SPARC (Stratospheric Processes and Their Role in Climate) water vapor workshop, World Climate Research Program (WCRP), Boulder, Colorado, August 26-28, 1998.

***International:***

•Science Advisor, Oxford University Press-Environmental.

•Associate Editor (“Editor”), journal “Anthropocene”, Elsevier, August 2012-April 2014.

- The Sackler Forum 2012: Integrated assessment models and the future needs of climate change research, The US National Academy of Sciences and the UK Royal Society, Chicheley, UK, September 18-19, 2012.
  - The External Science Advisory Committee, International Pacific Research Center (IPRC), University of Hawaii, 2011-2014.
  - Co-convenor: Joint UT Austin, UK Metoffice and NASA JPL Climate Modeling and High Performance Computing Workshop, Austin, Texas, Jan 30<sup>th</sup>-Feb. 1<sup>st</sup>, 2012.
  - Co-convenor: Joint UT Austin, UK Metoffice and Texas State Agencies climate service workshop, Austin, Texas, Feb. 2<sup>nd</sup>, 2012.
  - Convenor: International Workshop on Tibetan Plateau Surface-Troposphere-Stratosphere Interaction (STSI) Cooperation Research, University of Texas at Austin, February 20-21, 2012.
  - Co-convenor and chair: 2010 AGU Meeting of Americas, A04 Session, Foz do Iguacu, August 9, 2010.
  - Session Chair: The fifth workshop on “Surface-Troposphere-Stratosphere Interaction (STSI) over the Tibetan Plateau and its impacts on global and regional climate change”, the Chinese Academy of Meteorological Sciences (CMAS), Beijing, China, September 13-14, 2010.
  - Co-convenor and chair: 2010 AGU Meeting of Americas, A04 Session, Foz do Iguacu, August 9, 2010.
  - Session chair: International Workshop on ASM-STE, Lhasa, China, July 22, 2010.
- Co-Chair, “Energy and Water Cycle over the Tibetan Plateau and the Related Area”, The 5th International Symposium on Tibetan Plateau / The 24th Himalaya-Karakorum-Tibet Workshop, Beijing, China, August, 11 – 14, 2009.
- WCRP/CLIVAR-GEWEX Asian Monsoon Year-2008 International Workshop. Beijing, April 23-25, 2007.
- SPARC/GEWEX (Global Energy and Water Cycle Experiment) Workshop on Modeling of deep convection and chemistry and their roles in the tropical tropopause layer. Victoria, BC, Canada, June 12-15, 2006.

Chair, D3: “Dynamics and variability of the monsoon systems and their effect on climate,” IAMAS (International Association of Meteorology and Atmospheric Sciences) Conference, Beijing, China, August 2-11, 2005.

Convener, Special session 3 “Role of Amazon ecosystem in determining regional and global climate variabilities.” III International Conference of LBA, Brasilia, Brazil, July 27-29, 2004.

Chair, MC03 “Monsoon around world”, IUGG (International Union of Geodesy and Geophysics) 2003, Sapporo, Japan, June 30-July 11, 2003.

CLIVAR/VAMOS (Variability of American Monsoon Systems) 4<sup>th</sup>. Panel Meeting, WMO (World Meteorological Organization), Miami, April 23-26, 2003.

Organization Committee, conference on South American low-level Jet, of American monsoon system (CLIVAR/VAMOS) program, WMO, Santa Cruz de la Sierra, Bolivia, February 5-7, 2002

Co-author, Chapter 3 of SPARC assessment of upper troposphere and stratosphere water vapor, Edited by Kley. D. J.M. Russell III and C. Phillips, WCRP-113, WMO/TD – No. 1043. December 2000.

SPARC Water Vapor Assessment, WCRP, May 1999.

The First Workshop of CLIVAR/VAMOS, WMO, Sao Paulo, Brazil, April 1998.

CLIVAR/VAMOS South American Monsoon Working Group for the CLIVAR/VAMOS science plan, 1988.

The first working group meeting of the Global Energy and Water Cycle Experiment (GEWEX) Water Vapor (GvaP) program, WCRP, Geneva, Switzerland, November 1996.

Contributor, 1995 Intergovernmental Panel on Climate Change Report (Chapter Four: Climate Processes).

**Reviewer of Manuscripts and Text Books for the Following Journals and Publishers:**

Science

Nature

Proceeding of National Academic of Sciences

Review of Geophysics

Journal of Climate

Journal of Atmospheric Sciences



Monthly Weather Review  
Journal of Hydrometeorology  
Journal of Geophysical Research,  
Geophysical Research Letter  
Quarterly Journal of Roy Meteorological Society  
Earth's Future  
International Journal of Climatology  
Wiley&Sons  
WorldWatch Project, Northwestern University

**Reviewer of Grant Applications for the Following Agencies:**

National Science Foundation (NSF)  
National Aeronautic and Space Administration (NASA)  
National Oceanographic and Atmospheric Administration (NOAA)  
Department of Energy (DOE)  
American Advanced Association of Sciences-Kansas NSF EPSCoR program  
Canadian Foundation for Climate and Atmospheric Sciences  
National Science Foundation of China

**Research Grants:**

***Administered***

*PI:* Using the GoAmazon-CHUVA measurements to understand what causes the biases in the onset of the rainy season in Amazonia in climate models, DOE, 2014-2017, \$786,575, JSG: \$609,575.

*Co-PI:* Soil Moisture Characterization for Biogenic Emissions Modeling in Texas, Quality Assurance Project Plan, \$174,998.05. (*PI:* Elena McDonald-Buller, Chemical Engineering, University of Texas at Austin)

*Co-I:* Absorptive aerosols and clouds: Application of the PNNL-MMF model and analysis of Cloudsat-Calipso, A-train, and Geosynchronous data", NASA ACMAP, 2013-2016, Subcontract to JSG/Rong Fu: \$61,260.

*PI:* Rainfall Extremes and Variability over Amazonia: Understanding the Mechanisms and Consequences Using Satellite Observations and CMIP5 Models, NASA Earth System Science Fellowship to Lei Yin, August 2013-July 2016, JSG/RongFu/Lei Yin, \$90,000 (\$30,000/yr, upto three years or to student receive PhD, whatever comes first).

*PI:* Develop a climate indicator in Supporting the Nation's Resilience to "flash" droughts over the US Great Plains, NASA Indicator System Team membership to INCA12, 2013-2014, \$ 187,000.

Co-PI: Host of UCAR-Applying Climate Expertise Postdoctoral Fellowship Program (PACE). August 2011 - July 2013. \$136,000 matching fund from NOAA.

PI: Exploring the Impacts of Climate Variations and Land Use on Interannual Changes of CO in the Tropical Tropopause Layer Using Multi-Year Aura and A-Train Measurements, NASA Aura, July 2011 – June 2014, \$542,470.

PI: Changes in Intraseasonal to Interannual Variability of the Pan American Monsoons Under a Warmer Climate and Their Impacts on Extreme Events as Assessed by the CMIP5 Models and Observations, NOAA-CPPA, June 2010-May 2013, \$ 441,723.

Co-PI: Impact of Droughts Related to Climate Change on Water Resources in the High Plains Aquifer, Bureau of Reclamation, 2011-2012, (New, PI : Bridget Scanlon, \$200,000.

PI: “Changes of Rainfall Seasonality and Drought Severity over Amazonia and Their Connections to Global Climate Change NSF”, September 2009 –August 2012, \$513,523.

PI: “Pathways for Transport of Fire Generated Tracers to the Tropical Tropopause Layer as Determined by Aura MLS/TES and Other A-Train Measurements Atmospheric composition: Aura science team,” ROSES-2007 NRA A.11, February 2009 – March 2012, \$416,784.

PI: “Water Cycle between Ocean and Land and its Influence on Climate Variability over the South American-Atlantic Regions as Determined by QuikSCAT/SeaWinds Observations” the Ocean Vector Winds Science Team, ROSES-2005 NRA, June 2006 – May 2010, \$520,346.

PI: “Roles of Land Surface Processes and Large-Scale Atmospheric Circulation in Determining the Transition to Warm Season Precipitation Regime and Summer Drought in the Southeast United States, NOAA Climate Prediction Program for the Americas, April 2006 – March 2009, \$180,000.

PI: “Statistical characterization of atmospheric water vapor transports using Aura and other measurements in support of Aura model validation and data assimilation.” NASA, Aura Science Team, December 2006-February 2010, \$618,224. \$449,145.00 to UT Austin.

PI: “Investigating the Influences of Vegetation, Biomass Burning, clouds on Wet Season Onset over the Amazon Using Terra, Aqua in conjunction with In Situ and Other

Satellite Data Sets”, Earth System Science Research Using Data and Products from Terra, Aqua and ACRIM Satellites, NASA, July 2004 –June 2007, \$667,700.

Co-I:”Dynamics and predictability of rainy season onset and demise for South America in observations and GCM simulations,” NOAA CPPA, 2004-2007, \$223,888.

PI: “Symposium to Celebrate 40 years of Climate Research. DOE, the Office of Science (BER), 2005 (Grant No DE-FG02-05ER64078), \$5,000.

PI: “Characterize Mesoscale Convective Complex systems over Tibet Plateau using multiple satellite observations”, the Natural Science Foundation of China, 2005-2007, ¥400,000. Another ¥400,000 matched by Chinese Academy of Science for the same period.

PI: “Diagnosis of the Mechanisms that Control the Seasonal Geographic Advancement and Retreat of the Rainy Areas over South America”, Office of Global Program, NOAA, June 2003 – July 2006, \$265,106.

PI: “Diagnostics of interannual variation of rainfall over South America and its interaction with atmospheric circulation over North Atlantic”, to Division of Climate, Modeling, Analysis and Prediction, NSF, February 2003- January 2005, \$345,258.

PI: “Investigating the influences of changes in convection types and boundary layer clouds on intraseasonal to interannual variations of precipitation over Amazon and on the tropical upper troposphere water vapor using ESE multi-satellite sensors,” the Global Water and Energy Cycle Research Analysis, Office of Earth Sciences, NASA, 2002 – 2005, \$489,000.

PI: “Investigating the influence of ocean and land surface vegetation on the seasonal and interannual variations of precipitation over Amazon through use of SeaWinds scatterometer data and atmospheric model simulations”, Ocean Vector Winds Science Team (OVWST) of NASA Mission to Planet Earth and Earth Observing System Science, 2000 – 2005, \$582,214.

Co-I: “Characteristics and predictability of the extratropical atmospheric response to the ENSO cycle”, Office of Global Programs, NOAA, 2001-2004, \$188,272.

PI: “What controls the seasonal and interannual variations of precipitation in tropical South America? - A combined observational and climate model study of ocean-atmosphere-land coupling for improving climate prediction”, Office of Global Programs, NOAA, 1998— 2001, \$227,249.

PI: "Using UARS MLS to investigate the impacts of troposphere convection and planetary-scale and synoptic waves on the lower stratosphere water vapor in the tropics and mid-latitudes", NASA Mission to Planet Earth Upper Atmosphere Research Satellite Science Investigator Program, 1998-2000, \$243,051.

PI: "The role of atmosphere-land-ocean coupling in determining clouds, precipitation and water vapor", NASA Mission To Planet Earth New Investigator Program, 1996—1999, \$327,311.

PI: "A Career Development Plan with Primary Emphasis on a Process Study of Upper Troposphere Water Vapor in Midlatitude." NSF Early Career Development Program, 1995—1998, \$150,000.

PI: "Use of Satellite and *In situ* Meteorological Data to Improve the Climate Predictions in the Equatorial and South America Through a Better Understanding of Amazon Convection." Office of Global Programs, NOAA, April 1, 1995—March 31, 1997, \$120,000.

Co-I: "Land-ocean-atmosphere interaction: mechanisms for the seasonal variations in precipitation over tropical land", NSF, 1998- 2003, \$1,126,971.

Co-I: "Land-Atmosphere Interactions - A Core Program in Support of Community Climate System Modeling." NSF, January 1, 1995—December 31, 1997, \$676,182.

### **Peer Reviewed Journal Publications**

#### **Submitted or in revision:**

**Published: h-Index: 19, average citation per article: 25.21**

**(<http://www.researcherid.com/AuthorizeWorkspace.action>), Google h-index: 25,**

Google i10-index: 41.

1. \*Huang' L., **R. Fu**, J. H. Jiang, 2014: Impacts of Fire Emissions and Transport Pathways on the Interannual Variation of CO in the Tropical Upper Troposphere, *Atmos. Chem. Phys.*, 14, 4087-4099, 2014.
2. \*Yin, L., **R. Fu**, Y. F. Zhang, P. A. Arias, D. N. Fernando<sup>a</sup>, W.H. Li, K. Fernandes, A. R. Bowerman, 2014: What controls the interannual variation of the wet season onsets over the Amazon? *J. Geophys. Res. Atmos.*, 119, 2314–2328, doi:[10.1002/2013JD021349](https://doi.org/10.1002/2013JD021349).
3. **Fu, R.**, L, Yin, W. H. Li, P. A. Arias, R. E. Dickinson, L. Huang, K. Fernandes, Sudip

- Chakraborty, B. Liebmann, R. Fisher, R. B. Myneni, 2013: Increased dry season length over southern Amazonia in recent decades, *PNAS*. Oct. 21, 2013, doi:10.1073/pnas.1302584110.
4. Wuebbles, D., G. Meehl, K. Hayhoe, T. R. Karl, K. Kunkel, B. Santer, M. Wehner, B. Colle, E. M. Fischer, **R. Fu**, A. Goodman, E. Janssen, H. Lee, **W. Li**, L. N. Long, S. Olsen, A. Seth, J. Sheffield, L. Sun, 2012: CMIP5 Climate Model Analyses: Climate Extremes in the United States, In press, *Bull. Ameri. Meteor. Soc.* [10.1175/BAMS-D-12-00172.1](https://doi.org/10.1175/BAMS-D-12-00172.1).
  5. Sheffield, J. A. Barrett, B. Colle, **R. Fu**, K. L. Geil, Q. Hu, J. Kinter, S. Kumar, B. Langenbrunner, K. Lombardo, L. N. Long, E. Maloney, A. Mariotti, J. E. Meyerson, Ki. C. Mo, J. D. Neelin, Z. Pan, A. Ruiz-Barradas, Y. L. Serra, A. Seth, J. M. Thibeault, J. C. Stroeve, 2012: North American Climate in CMIP5 Experiments. Part I: Evaluation of 20th Century Continental and Regional Climatology, *Journal of Climate* **26**: 9209-9245.
  6. Maloney, E. D., S. J. Camargo, E. Chang, B. Colle, **R. Fu**, K. L. Geil, Q. Hu, X. Jiang, N. Johnson, K. B. Karnauskas, J. Kinter, B. Kirtman, S. Kumar, B. Langenbrunner, K. Lombardo, L. N. Long, A. Mariotti, J. E. Meyerson, Kingtse C. Mo13, J. D. Neelin, Z. Pan, R. Seager, Y. Serra, A. Seth, J. Sheffield, Julienne Stroeve20, J. Thibeault, S. P. Xie, C.Z. Wang, B. Wyman., and M. Zhao., 2012: North American Climate in CMIP5 Experiments: Part III: Assessment of 21st Century Projections, *Journal of Climate* **27**: 2230-2269.
  7. Sheffield, J. S. J. Camargo, **R. Fu**, Q. Hu, X. Jiang, N. Johnson, K. B. Karnauskas, J. Kinter, S. K., B. Langenbrunner, E. Maloney, A. Mariotti, J. E. Meyerson, J. D. Neelin, Z. Pan, A. Ruiz-Barradas, R. Seager, Y. L. Serra, D. Z. Sun, C.Z. Wang, S. P. Xie, J. Y. Yu, T. Z., M. Zhao, 2012: North American Climate in CMIP5 Experiments. Part II: Evaluation of 20th Century Intra-Seasonal to Decadal Variability, *J. Climate*, **26**, 9247–9290. doi: <http://dx.doi.org/10.1175/JCLI-D-12-00593.1>
  8. Yang, J, P. Gong, R. Fu, M. H. Zhang, J. M. Chen, S. L. Liang, B. Xu, J. C. Shi, R. E. Dickinson, 2013: the role of satellite remote sensing in climate change studies, *Nature Climate Change*. September 15<sup>th</sup>, 2013. 10.1038/nclimate1908.
  9. \*Huang L., J. H. Jiang, J. L. Tackett, H. Su, **R. Fu**, 2013: Seasonal and Diurnal Variations of Aerosol Extinction Profile and Type Distribution from CALIPSO 5-year Observations, *JGR-Atmosphere*. 118/, 10, 4572–4596, doi:10.1002/jgrd.50407, 2013.
  10. Li, W.H. L. F. Li, R. Fu, Y. Deng and H. Wang, 2013: Comments on “influence of the Bermuda High and atmospheric moistening on changes in summer rainfall in the Atlanta, Georgia region, USA”, *J. International Climatology*, doi: 10.1002/joc.3675.

11. Lin, C. G., K. Yang, J. Qin, **R. Fu**, 2013: Observed coherent changes of surface and upper-air wind speed over China since 1960, *J. Climate*, 26(9), 2891-2903.
12. \*Yin, L., **R. Fu**, E. Shevliakova, and R. E. Dickinson, 2012: How Well Can CMIP5 Simulate Rainfall Seasonal and Interannual Variability over Amazonian and South American Monsoon Regions and Their Controlling Processes? *Climate dynamics*, DOI 10.1007/s00382-012-1582-y
13. Li, W. H., L. F. Li, **R. Fu**, Y. Deng and H. Wang' 2012: Reply: Comments on "Changes to the North Atlantic Subtropical High and Its Role in the Intensification of Summer Rainfall Variability in the Southeastern United States, *J. Climate*, 26(2), 683-688.
14. \*Huang, L., **R. Fu**, J. Jiang, J. Wright, 2012: Geographic and Seasonal Distributions of CO Transport Pathways and Their Roles in Determining CO Centers in the Upper Troposphere, *Atmos. Chem. Phys.* 12, 4683–4698, doi:10.5194/acp-12-4683-2012.
15. Samanta, A. Y. Knyazikhin, L. Xu, R. E. Dickinson, **R. Fu**, M. H. Costa, S. S. Saatchi, R. R. Nemani, and R. B. Myneni, 2012: Seasonal Changes in Leaf Area of Amazon Forests from Leaf Flushing and Abscission, *JGR-Biogeosciences*. 117, G01015, doi:10.1029/2011JG001818.
16. \*Arias, P. A. **R. Fu**, K. C. Mo, 2012: Decadal variation of rainfall seasonality in the North American Monsoon region and its potential causes, *J. Climate*, 25, 4258-4274.
17. Wright, J. S., **R. Fu**, S. Fueglistaler, Y. S. Yu, Y. Zhang, 2011: The influence of summertime convection over South-East Asia on water vapor in the tropical stratosphere, *J. Geophys. Res.*, 116, D12302, doi:10.1029/2010JD015416.
18. †Ren, D. D, **R. Fu**, L. M. Leslie, J. L. Chen, C. R. Wilson, and D. J. Karoly, 2011: The Greenland Ice Sheet Response to Transient Climate Change, *J. Climate*, 24, 3469-3483 DOI: 10.1175/2011JCLI3708.1
19. +Ren, D., **R. Fu**, L. M. Leslie, D. J. Karoly, J. Chen, and C. Wilson, 2011: A multirheology ice model: Formulation and application to the Greenland ice sheet, *J. Geophys. Res.*, 116, D05112, DOI: 10.1029/2010JD014855 .
20. Li, W.H., L. F. Li, **R. Fu**, Y. Deng and H. Wang, 2010: Changes of the North Atlantic Subtropical High and Its Role in the Intensification of Summer Rainfall Variability in the Southeastern United States, *J. Climate*, doi: 10.1175/2010JCLI3829.1.
21. Ren, D., **R. Fu**, L. M. Leslie, R. E. Dickinson., 2010: Predicting storm-triggered landslides and ecological consequences. *Bull. Amer. Meteo. Soc.*, doi: 10.1175/2010BAMS3017.1

22. Ren, D. R., L. M. Leslie, **R. Fu**, R. E. Dickinson, X. Xin, 2010: A Storm-Triggered Landslide Monitoring and Prediction System: Formulation and Case Study. *Earth Interact.*, **14**, 1–24. doi: 10.1175/2010EI337.1.
23. Ren, D., L. M. Leslie, **R. Fu**, and R. Dickinson, 2010: Modeling the Mudslide Aftermath of the 2007 Southern California Wildfires. *Natural Hazards*. DOI: 10.1007/s11069-010-9615-5.
24. Ren, D, **R. Fu**, L. Leslie, D. Karoly, J. Chen, and C. R. Wilson, 2010: A new ice sheet model validated by remote sensing of the Greenland ice sheet. *Central European Journal of Geosciences*, DOI: 10.2478/v10085-010-0012-9.
25. \*Wang, H., **R. Fu**, A. Kumar, W. H. Li, 2010: Intensification of Summer Rainfall Variability in the Southeastern United States during Recent Decades. *J. of Hydrometeorology*, 11, No. 4. 1008–1019.
26. \*Zhao, C., Y. Wang, Q. Yang, **R. Fu**, D. Cunnold, and Y. Choi, 2010: Impact of East Asian summer monsoon on air quality over China: The view from space, *J. Geophys. Res.*, 115, D09301, doi:10.1029/2009JD012745, 2010.
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28. Zhang Y., **R. Fu**, H. Yu, Y. Qian, R. Dickinson, M. A. F. Silva Dias, P. L. da Silva Dias, K. Fernandes, 2009: Impact of biomass burning aerosol on the monsoon circulation transition over Amazonia, *Geophys. Res. Lett.*, 36, L10814, doi:10.1029/2009GL037180.
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30. Wright, J. S., **R. Fu**, A. Heymsfield, 2009: A statistical analysis of the influence of deep convection on water vapor variability in the tropical upper troposphere, *Atmos. Chem. Phys.* 9, 5847-5864.
31. Ren, D. D., J. Wang, **R. Fu**, D. J. Karoly, Y. Hong, L. M. Leslie, C. B. Fu, G. Huang 2009: Wenchuan Earthquake 2008 and the Subsequent Mudslide-Caused Ecosystem Degradation, *Geophys. Res. Lett.*, 36, L05401, doi:10.1029/2008GL036702.

32. Zhang, Y, **R. Fu**, H. B. Yu, R. E. Dickinson, R. Negrón Juárez, M. Chin, H. Wang, 2008: A Regional Climate Model Study of How Biomass Burning Aerosol Impacts Land-Atmosphere Interactions over the Amazon, *J. Geophys. Res.- Special Issue for Yoram J. Kaufman Symposium on Aerosols, Clouds, and Climate*. 113, D14S15, doi:10.1029/2007JD009449.
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36. Negrón Juárez, R.I., **R. Fu**, R. B. Myneni, M. Goulden, S. Bernardes, H.L. Gao, 2008: An empirical approach to retrieve monthly evapotranspiration over Amazonia, *International Journal of Remote Sensing*, 29, 24, 7045-7063.
37. Li, Y. D., Y. Wang, Y. Song, L. Hu, S. T. Gao, **R. Fu**, 2008: Characteristics of summer mobile mesoscale convective system initiated from Tibetan Plateau, Part I: origin, track, development and precipitation, *J. Appl. Meteor. & Climatology*. 47, 2679-2695.
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45. Wang, H.\* , and **R. Fu**, 2006: Variability of the Atlantic ITCZ associated with Amazon rainfall and convective coupled Kelvin wave. *J. Climate*, **20**, 1188–1201.
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48. **Fu, R**, Y. L. Hu\*, J. S. Wright\*, J. H. Jiang, R. E. Dickinson, M. X. Chen\*, M. Filipiak, W. G. Read, J. W. Waters, D. L. Wu, 2006: Convective transport over the Tibetan Plateau - A short-circuit of water vapor and polluted air to the global stratosphere. *PNAS*, Apr. 11, 2006.
49. Petersen, W. A., **R. Fu**, M.X. Chen\*, and R. Blakslee, 2006: Intraseasonal Forcing of Convection and Lightning Activity in the Southern Amazon as Function of Cross-Equatorial Flow, *J. Climate*, **19**, 3180-3196.
50. Li, W. H.\* , **R. Fu**, R. E. Dickinson, 2006: Rainfall and its seasonality over the Amazon in the 21<sup>st</sup> century as assessed by the coupled models for the IPCC AR4, *J. Geophys. Res.*, **111**, D02111, doi:10.1029/2005JD006355.
51. Li, W.H.\* and **R. Fu**, 2006: Influence of Cold Air Intrusions on the Wet Season Onset over Amazonia, *J. Climate*, **19**, pages 257-275.

52. Liu, Y. Q\*, **R. Fu**, and R. E. Dickinson, 2005: Smoke aerosols altering South American monsoon, *Bull. Amer. Meteor. Sci.*, August 2005, 1062-1063.
53. Wang, H.\* , and **R. Fu**, 2004: Influence of cross-Andes flow on the South American low-level jets, *J. Climate*, 17, 1247-1262.
54. Li, W.H.\* and **R. Fu**, 2004: Transition of the large-scale atmosphere and land surface conditions from dry to wet season over Amazon. *J. Climate*, 17, 2637-2651.
55. **Fu, R.**, and W.H. Li, 2004: Influence of land surface on transition from dry to wet season over the Amazon, *J. Theor. Appl. Clim.*, 78, 123, 97-110. (invited).
56. Gash, J.H.C, Huntingford, C., Marengo, J.A., Betts, R.A., Cox, P.M., Fisch, G., **Fu, R.**, Gandu, A.W., Harris, P.P., Machado, L.A.T., von Randow, C. and Silva Dias, M.A. 2004: Amazonian Climate: Results and future research, *J. Theor. Appl. Clim.*, 78, 123, 187-193 (invited).
57. Nogues-Paegle, J. C. Mechoso, **R. Fu**, and et al., 2002: Progress in Pan American CLIVAR research: understanding the South American monsoon, *Meteorologica.*, 27, 3-32 (invited).
58. Wang, H.\* , and **R. Fu**, 2002: Cross-equatorial flow and seasonal cycle of precipitation over South America. *J. Climate*, 15, 1591-1608.
59. **Fu, R.**, R. E. Dickinson, M. X. Chen, and H. Wang, 2001: How do tropical sea surface temperatures influence the seasonal distribution of precipitation in the equatorial Amazon, *J. Climate*. 14, 4003-4026.
60. Wang, H.\* , and **R. Fu**, 2000: Winter monthly mean atmospheric anomalies over the North Pacific and North America associated with El Niños SSTs. *J. Climate*, 13, 3435-3447.
61. McCormack, J.\* , **R. Fu**, and W. B. Read, 2000: The impact of tropical deep convection on the upper tropospheric water vapor based on UARS MLS measurements. *Geophys. Res. Lett.*, 27, 525-528.
62. Wang, H.\* , and **R. Fu**, 2000: Influence of ENSO SST anomalies and water storm-tracks on the interannual variability of the upper tropospheric water vapor over the Northern Hemisphere extratropics. *J. Climate*, 13, 59-73.
63. **Fu, R.**, B. Zhu\*, R. E. Dickinson, 1999: How does the atmosphere and land surface influence seasonal changes of convection in the tropical Amazon? *J. Climate*, 12, 1306-1321.

64. **Fu, R.**, R.E. Dickinson & B. Newkirk\*, 1997: Response of the upper troposphere humidity and moisture transport to changes of tropical convection. A comparison between observations and a GCM over an ENSO cycle. *Geophys. Res. Lett*, 24, 2371-2374.
65. **Fu, R.**, W. T. Liu and R.E. Dickinson, 1996: Response of tropical clouds to the interannual variation of sea surface temperature. *J. Climate*, 9, 616-634.
66. Soden, B.J. and **R. Fu**, 1995: A satellite analysis of deep convection, upper troposphere humidity and the greenhouse effect. *J. Climate*, 8, 2333-2351.
67. **Fu, R.**, A.D. Del Genio, and W.B. Rossow, 1994: Deep convection, vertical thermodynamic structure, and surface conditions in the tropical Pacific. *J. Climate*, 7, 1092-1108.
68. **Fu, R.**, W.T. Liu, A.D. Del Genio, and W.B. Rossow, 1993: Comments on 'A Thermostat in the Tropics?' *Nature*, 361, 412.
69. **Fu, R.**, A.D. Del Genio, W.B. Rossow, and W.T. Liu, 1992: Cirrus-cloud thermostat for tropical sea-surface temperatures tested by using satellite data. *Nature*, 358, 394-397.
70. **Fu, R.**, A.D. Del Genio, and W.B. Rossow, 1990: Behavior of Deep Convective Clouds in the Tropical Pacific Deduced from ISCCP Radiances, *J. Climate*, 3, 1129-1152.

*\*denotes student and researcher coauthors in my group.*

**Book (refereed documentation):**

71. Co-author, 2000: Chapter 3 of SPARC assessment of upper troposphere and stratosphere water vapor, Edited by Kley. D. J.M. Russell III and C. Phillips, WCRP-113, WMO/TD – No. 1043.
72. Nobre, C., J. A. Marengo, G. Poveda, **R. Fu**: 2009: Characteristics of Amazonian Climate: Main Features, Amazonia and Global Change, American Geophysical Union Press.

**Non-refereed publications:**

- Arias, P. R. Fu, K. S. Mo: 2011: Decadal variability of the North American monsoon duration and its potential causes, NOAA Climate Prediction S&T Digest, December. 2011.

- **Fu, R.**, M. Chen, H. Wang, W. T. Liu and W. Tang: 2001: Influences of Amazon rainfall on the atmospheric circulation over the North Atlantic detected by QuikSCAT and TRMM, Extended Abstract, Report of the first workshop of Atlantic CLIVAR Program.
- Wang, H., **R. Fu**, W.Q. Tan and W. T. Liu: 2004: Influence of cross-Andes flow on the SALLJs and application of real-time scatterometer observations to forecast the SALLJs. CLIVAR Exchanges, Contribution to Exchange No. 29, March 2004.
- Andronova, N.G., S. Sherwood, **R. Fu**, I. Folkins, K. Rosenlof, M. Joshi, A. Caboussat, and A. Stenke, 2007: A note on an AGU spring meeting discussion of the role of atmospheric water vapor in climate and atmospheric composition. SPARCE Newsletter, No. 28, January 2007.

### **Invited Presentations and Seminars:**

1. Invited Talk: Understanding the causes of the biases that determine the onset of the rainy season in Amazonia in climate models using GoAmazon-CHUVA measurements. FAPESP-U.S. Joint Research on the Amazon Rain Forest, Wilson Center, Washington, D.C. October 28, 2014.
  2. Invited Talk: Precipitation/Land-Atmosphere interactions, Green Ocean Amazon, Joint Principal Investigators Meeting, October 29, 2014, Woodrow Wilson International Center for Scholars, Washington, DC 20004.
  3. Invited talk: *Relationship between aerosol and convective dynamic structure through convective life cycle deduced from satellite observations*, 2014 Nanjing University of Information Science and Technology, High-level Forum on Land Surface Processes and climate, Nanjing, China, September 27<sup>th</sup>, 2014.
1. Invited talk: The role of land-atmosphere coupling in determining persistent drought over US Great Plains, 2014 Nanjing University of Information Science and Technology, High-level Forum on Land Surface Processes and climate, Nanjing, China, September 26, 2014.
  2. Invited seminar: An overlooked source of uncertainty in drought prediction/projection over US Great Plains, Center for Ocean-Land-Atmospheric Studies, George Mason University, September 10, 2014.
  3. Invited Webinar: Explore mechanisms behind the spring to summer drought memory and their application for early warning of summer drought over US Southern Plains, NOAA Modeling, Analysis and Prediction Program Webinar series, May 30<sup>th</sup>, 2014.

4. Invited seminar: Relationship between aerosol and convective dynamic structure through convective life cycle deduced from satellite observations, NASA Goddard Space Flight Center Atmospheres Seminar Series, May 15<sup>th</sup>, 2014.
5. Invited talk: Increased dry season length over southern Amazonia in recent decades and its implication for future climate projection, The 2<sup>nd</sup> International Seminar on large-scale sustainable agriculture, March 12-13, 2014, Vicosa-Minas Gerais, Brazil.
6. Invited talk: Influence of climate variability over the Tibetan Plateau on water vapor transport to the lower stratosphere, AGU 2013 Fall Conference, GC32B-1 December 11, 2013, San Francisco, California.
7. Invited seminar: Climate-vegetation-human, Institute of Geographic Sciences and Natural Resources Research, Chinese Academic of Sciences, August 2nd, 2013.
8. Keynote: Influence of climate variability and aerosols on convective transport to the UT/LS over Asian Monsoon/Tibetan region, International Workshop on Atmospheric Composition and the Asian Summer Monsoon (ACAM), 9-12 June 2013, Kathmandu, Nepal.
9. Invited seminar: Land-atmosphere-ocean interaction over the Pacific-America-Atlantic Sector, *IPRC Department of Meteorology*, University of Hawaii at Manoa, Honolulu USA. May, 30<sup>th</sup>, 2013.
10. Invited talk: Decadal variability of the Pan American monsoon season lengths, GC-21A-01, 2013 AGU Meetings of Americas, Cancun, Mexico, May 14-16, 2013.
11. Invited talk: Amazon rainforest and Rainfall in a changing climate, Undergraduate Geological Club, the Jackson School of Geosciences, The University of Texas at Austin. April 11, 2013.
12. Invited seminar: Influence of climate change over Tibetan Plateau on troposphere-to-stratosphere transport of water vapor and pollutants. Large-scale atmosphere geofluid dynamics laboratory, Institute of Atmospheric Physics, Chinese Academy of Science. Beijing, China, April 3<sup>rd</sup>, 2013.
13. Invited presentation: Influence of climate change over Tibetan Plateau on troposphere-to-stratosphere transport of water vapor and pollutants. Natural Science Foundation of China Forum on "Tibetan Plateau-land atmospheric interaction and its global impacts.", Beijing, China, April 2<sup>st</sup>., 2013.
14. Invited presentation: Assessing future changes of drought and extreme surface temperature over the south-central United State, Texas Water Development Board, Surface Water Group. February 20, 2013.

15. Invited presentation: *Uncertainty in modeling Amazon rainforest die-back and potential role of mesoscale convection*, International Workshop on understanding and representing atmospheric convection across scales, January 28-30, 2013, Devon, UK.
16. Invited presentation: Assessing future changes of drought and extreme surface temperature over the south-central United State, NOAA Modeling, Analysis and Prediction Program Webnar, January 14, 2013.
17. Invited presentation: Evaluating Climate Projection for Drought and Extreme Surface Temperatures over South-Central US, Water Forum, Austin, Texas, October, 22, 2012.
18. Invited presentation: Predictability of Severe to Exceptional Droughts in Texas, NOAA Modeling, Analysis and Prediction Program Webnar, April 10, 2012.
19. Invited Seminar: Water cycle in a changing climate, Faculty of Science, China University of Hong Kong, March 22, 2012.
20. Invited talk: Assessing changes of rainfall seasonality over the American monsoon regions, Session GC34B, AGU 2011 Fall Conference, San Francisco, California, December 7, 2011.
21. Seminar: Land-atmosphere-ocean interaction over the Pacific-America-Atlantic Sector, Frontier in Earth System Science Seminar Series, Beijing Normal University, November, 16, 2011.
22. Seminar: Convective and dynamic transport over the Tibetan Plateau and its potential influence on regional and global stratosphere composition and climate, Institute of Tibetan Plateau Research, Chinese Academic of Sciences, Beijing, China, November 11, 2011.
23. Seminar: *Coupling between terrestrial ecosystem and water cycle in the tropics and its role in determining climate variability*, School of Oceanography, University of Washington, October 25, 2011.
24. Seminar: What caused changes of Summary Rainfall Variability over the Pan-American Regions in recent decades? Institute of Atmospheric Sciences, Chinese Academic of Sciences, May 26, 2011
25. Invited talk: Impact of Decadal Climate Variability and Anthropogenic Forced Change on Regional Seasonal Variability, Regional Earth System Modeling and Analysis Symposium, Beijing, China, May 18-21, 2011.

26. Invited Seminar: Changes of Summer Rainfall Variability over the Pan-American Regions in recent decades and their connections to change of the North Atlantic Subtropical High, The International Research Institute for Climate and Society, The Earth Institute at Columbia University, April 8, 2011.
27. Seminar: Change of Summer Rainfall Variability over South United States and North Mexico in Recent Decades, Department of Earth System Science, School of Physical Sciences, University of California, Irvine, December 1, 2010
28. Seminar: Change of Summer Rainfall Variability over South United States and North Mexico in Recent Decades, Environmental Science and Engineering Graduate Seminar, University of Texas, San Antonio, October 29, 2010, San Antonio, Texas;
29. Invited Lecture series: Land-atmospheric Interaction, Beijing Normal University, Beijing, China, September 15-17, 2010.
30. The fifth workshop on “Surface-Troposphere-Stratosphere Interaction (STSI) over the Tibetan Plateau and its impacts on global and regional climate change”, the Chinese Academy of Meteorological Sciences (CMAS), Relative role of Tibetan Plateau, Asian Monsoon and the tropics in moistening of the global stratosphere during summer season, Beijing, China, September 13, 2010.
31. American Geophysical Union, Meeting of Americas, Session A43E, Changes of Surface Radiation and Cloudiness over the Amazon: Cause and Implication to Tropical Ecosystem, Foz do Iguacu, August 12, 2010.
32. National Center for Atmospheric Research, Advanced Study Program Summer Colloquium “Asia in the 21<sup>st</sup> Century”, Energy and Water cycle over Tibetan Plateau and Its impact on regional and global climate, August 4, 2010, Boulder, Colorado.
33. International Workshop on ASM-STE, Relative role of Tibetan Plateau and tropics in moistening of the global stratosphere during summer season, Lhasa, China, July 22, 2010
34. Keynote speaker, The 2nd CAS-CEOP International Workshop on Energy and Water Cycle Over the Tibetan Plateau and High-elevations, Tibetan Plateau, A Source of Water Vapor for Global Stratosphere, Lhasa, China, July 21, 2010
35. The Large-scale Fluid Dynamics Laboratory, the Institute of Atmospheric Physics, Chinese Academy of Science, Influence of the Tibetan Plateau on global stratospheric water vapor and climate, Beijing, China, July 14, 2010.

36. Landscapes on the Edge: New Horizons for Research on Earth's Surface (NRC 2010): a synopsis, NSF Workshop "Landscapes in the "Anthropocene": Exploring the Human Connections", the University of Oregon, March 4-6, 2010.
37. The University of Texas at Austin, Bureau of Economic Geology Seminar Series, Intensification of Summer Rainfall Variability in the Southeastern United States in Recent Decades, November 20, 2009.
38. The University of Texas at Austin, Department of Geological Sciences, Tech Session: Climate Change: Observations, October 6<sup>th</sup>, 2009.
39. Invited lecturer, The Beijing Summer School on Atmosphere, Climate and Environment Climate Dynamics and Physics, Peking University, Beijing, China, August 10-19, 2009.
40. Keynote speaker, "Energy and Water Cycle over the Tibetan Plateau and the Related Area", The 5th International Symposium on Tibetan Plateau / The 24th Himalaya-Karakorum-Tibet Workshop, Beijing, China, August, 11 – 14, 2009.
41. NASA Goddard Space Flight Center, Laboratory for Atmospheres, Earth Sciences Division, Detecting, Understanding and Projecting climate over tropical land, May 21, 2009.
42. Texas A&M, the Department of Atmospheric Sciences, Detecting, Understanding and Projecting climate over tropical land, April 7, 2009.
43. The University of Texas at Austin, Jackson School of Geosciences, Latin American Forum IV, Climate Change over the Amazon, Austin, Texas, December 8-9, 2008.
44. ISCCP 25th Anniversary Symposium, Clouds, Rainforest and Terrestrial Hydrological Cycle in the Tropics, 23-25 July 2008, NASA GISS, New York City
45. Geophysical Fluid Dynamic Laboratory, Princeton University: Understanding the Amazon rainfall from seasonal to decadal scales. Nov. 29, 2007.
46. The 7th Atmospheric Science Symposium: Future climate of the Amazon. Berkeley Atmospheric Sciences Center, The University of California, Berkeley, Oct. 4-5, 2007.
47. AGU 2007 Joint Assembly: Relative roles of land/vegetation, oceans, mountains and biomass burning in determining climate variabilities of the South American monsoon onset, Acapulco, Mexico, May 21-25, 2007.



48. University of Texas at Austin, Institute for Geophysics: Tropical Vegetation-Climate Interaction in a Changing Global Climate, Austin, Texas, May 10, 2007.
49. University of Texas at Austin, Department of Geosciences: Convective Transport in the Asian Monsoon/Tibetan Region and its Influence on Global Stratosphere Water Vapor and Climate, Austin, Texas, May 10, 2007.
50. WCRP/CLIVAR-GEWEX Asian Monsoon Year-2008 International Workshop: Role of Convection over Asian Monsoon/Tibetan Region in Hydration of the Global Stratosphere, Beijing, China, May 23-25, 2007.
51. Royal Caribbean Cruise, Explore of the Sea, Amazon deforestation and its climate impact, December, 30, 2006.
52. AGU 2006 Fall Conference: What has enhanced the interannual variation of seasonal cycle in the Amazon in recent decades? San Francisco, California, December 10-15, 2006.
53. NCAR TIIME Water-Biogeochemical Cycle Retreat: Role of water-biogeochemical cycle interaction in determining climate change, Keynote speaker, Boulder, Colorado, July 17-22, 2006.
54. Harvard University, Environmental Science and Engineering, Division of Engineering and Applied Science: Convective transport in the Asian monsoon/Tibetan region and its influence on global stratosphere water vapor, Cambridge, Massachusetts, October 13, 2006.
55. IEEE (Institute of Electrical and Electronics Engineers) IGARSS (International Geoscience and Remote Sensing Symposium): Could interannual changes of Amazon rainfall influence the onset of Atlantic Niño? Denver, Colorado, July 31-August 4, 2006.
56. Western Pacific AGU: Influence of biomass burning aerosols on land-atmosphere coupling over the Amazon, Beijing, China, July 24-27, 2006.
57. AGU 2006 Joint Assembly: What are the main pathways for the cross-tropopause transport of water vapor and CO over the Asian monsoon/Tibetan Plateau? Baltimore, Maryland, May 23-26, 2006.
58. University of New Hampshire, Center for EOS/Earth Sciences: Influence of biomass burning on surface energy and water budget and the transition of the large-scale atmospheric circulation in South America, April 7, 2006.

59. University of Maryland, Department of Atmospheric and Oceanic Sciences: What controls the cross-tropopause transport of water vapor and CO over the Asian monsoon/Tibetan Plateau? - A preliminary investigation based on Aura and other A-train observations. February 9, 2006.
60. Florida State University, Department of Meteorology: What controls rainfall seasonality and its interannual variations over South America, Tallahassee, Florida, October 6, 2005.
61. Chinese Academy of Meteorological Sciences, Workshop on Troposphere-Stratosphere Substance and Energy Exchange over Tibetan Plateau and its Impacts on Global Climate: Convective transport of water vapor and pollutants over Tibet as explored by satellites, Beijing, China, August 5, 2005
62. 2005 IEEE IGARSS: The Influence of South American Rainfall on Climate Variabilities of the Tropical Atlantic Ocean, Seoul, Korea, July 25-29, 2005.
63. China Meteorological Administration, International Seminar on Climate System and Climate Change: Role of land-atmosphere interaction in determining rainfall variability in wet tropical areas, Beijing, China, July 18-29, 2005.
64. Peking University, School of Physics: What control seasonal and interannual rainfall variability over Amazon? July 21, 2005.
65. Duke University Center on Global Change (Keynote speaker): What controls the seasonality of the Amazon rainfall and its interannual variations? - How strong it interacts with land surface? Durham, North Carolina, May 8-10, 2005.
66. 2004 IEEE IGARSS: Observing Ocean-land-atmosphere interaction using scatterometer and other satellite sensors, Alaska, September 20-24, 2004.
67. AMS (American Meteorological Society) 13<sup>th</sup>. Conference on Interaction of the Sea and Atmosphere: Can continental rainfall influence climate variability over tropical Atlantic Ocean? Portland, Maine, August 9-13, 2004.
68. Joint AOGS-APHW 2004 Conference: Influence of biomass burning on the wet season onset over Amazonia, Toh Tuck Link, Singapore, July 5-9, 2004.
69. VAMOS Panel, 6<sup>th</sup>. Annual Meeting: Influence of zonal wind over southeastern Pacific on SALLJ and its potential as a predictor of the SALLJ, Miami, Florida, 23-27, April 2003.

70. International Workshop on the Air-Land Interaction in Arid and Semi-Arid Areas and Its Impact on Climate (IWALI), Dunhuang-city Gansu Province, China, August 18-21 2002.
71. Georgia Tech, School of Civil and Environmental Engineer, Atlanta, Georgia, October 5, 2001.
72. Chinese Academy of Sciences, Seminar Series of the Institute of Atmospheric Physics, Beijing, China, September 27, 2001.
73. First International Symposium on Physico-Mathematical Problems Related to Climate Modeling and Prediction, CAS-TWAS-WMO, Beijing, China, September 25-29, 2001.
74. Tropical Atlantic Variability workshop, US CLIVAR (Climate Variability and Predictability Program/Variability) Program, Boulder, Colorado, June 12-14, 2001.
75. Columbia University, Lamont-Doherty Earth Observatory, Atmospheric Science Program Seminar Series, New York, New York, March 30, 2001.
76. Colorado State University, Department of Atmospheric Sciences Seminar Series, Fort Collins, Colorado, October, 24, 2000.
77. CLIVAR PACS Principal Investigator Meeting, Keynote Speaker, Potomac, Maryland, September 6-8, 2000.
78. PACS Principal Investigator meeting, Tucson, Arizona, October 6-7, 1998.
79. NASA Goddard Space Flight Center, Laboratory for Atmosphere, Radiation and Climate Branch and the Earth Observing System Data Assimilation Office, Greenbelt, Maryland, October 21, 1998.
80. NASA Goddard Institute for Space Study-Atmosphere Science Program at Columbia University, New York, February 13, 1998.
81. University of Arizona, Institute for the Study of Planet Earth, interdisciplinary "Global change in the Americas" seminar series, April 4, 1997.
82. WMO GEWEX/GvAP Workshop, Geneva, Switzerland, November 14, 1996.
83. NOAA PACS Principal Investigator meeting, Salt Lake City, Utah, September. 19-21, 1995.

84. NOAA/Geophysical Fluid Dynamics Laboratory, Princeton University, Princeton, New Jersey, April 19, 1996.
85. NASA Goddard Institute for Space Study, International Satellite Cloud Climatology Project workshop, New York, April 16, 1996.
86. Columbia University, Lamont-Doherty Earth Observatory, Physical Oceanography seminar, Palisade, New York, February 1, 1996.
87. UCLA, Department of Atmospheric Sciences, Los Angeles, California, November 3, 1995.
88. Jet Propulsion Laboratory of California Institute of Technology, Science Division, Physical Oceanography Branch, November 2, 1995, Pasadena, California.
89. University of Illinois, Urbana-Champaign, Department of Atmospheric Sciences, April 14, 1995.

**Meetings and Symposia as the Presenter:**

- Evaluation of an indicator for the early warning of flash drought over the south central US, the NOAA 39th Annual Climate Diagnostics and Prediction Workshop, St. Louis, Missouri, October 20, 2014.
- Mechanism behind the spring to summer drought memory and its impact on predictability of the summer drought over US Great Plains, the NOAA 39th Annual Climate Diagnostics and Prediction Workshop, St. Louis, Missouri, October 20, 2014
- Interannual and decadal variations of water vapor in the extratropical lower stratosphere and underlying causes, NASA Aura 10<sup>th</sup> Year Anniversary Science Team Meeting, September 15-18, College Park, Maryland
- Developing a summer drought early warning indicator to support regional resilience to extreme climate events over the US Great Plains, NASA National Climate Assessment Team meeting, April 9<sup>th</sup>, 2014. NASA Headquarter, Washington DC.
- Developing a framework to incorporate climate change projections in water availability modeling for Texas, the NOAA 38th Climate Diagnostic and Prediction Workshop, Greenbelt, Maryland. October 21-24, 2013.
- Developing an early warning indicator for Flash Drought over the US Great Plains, The third Water Forum, CISS, University of Texas, Austin,
- Assessing Future Changes of Drought over South-Central United States in Supporting Regional Water Resource Planning, The 94<sup>th</sup> AMS Annual Conference, Austin TX, January 8<sup>th</sup>, 2013.

Assessing Future Changes of Climate and Drought over the South-Central United States Projected by the CMIP5 Models, AGU 2012 Fall Conference, San Francisco, December 6, 2012.

Assessing Future Changes of Drought over South-Central United States in Supporting Regional Water Resource Planning, NOAA's 37<sup>th</sup> Climate Diagnostics and Prediction Workshop, Fort Collins, October. 25, 2012

Observing influence of aerosols on mesoscale convective systems through a joint of Aura, A-Train and ISCCP satellites datasets, NASA Aura Science team meeting, Pasadena, California, October 1, 2012.

A process-based evaluation of extreme drought and rainfall over Southern United States simulated by 7 CMIP5, WCRP Workshop on Coupled Model Intercomparison Project Phase 5 (CMIP5) Model Analysis, March 5, 2012 Honolulu, Hawaii

Reducing uncertainty of the drought prediction using observations and ultra-high resolution climate model, Water Forum, University of Texas at Austin, February 12, 2012.

Source Regions for Stratospheric Water Vapor during Boreal Summer, 2010 AGU Meeting of Americas, Session A12B, Foz do Iguacu, August 9, 2010.

Connection between the seasonal transition of North and South American monsoons and the role of the Intra-Americas Sea, 2010 AGU Meeting of the Americas, Foz do Iguassu, Brazil, August 9 (On behalf of my student Paola Arias who could not make to the conference).

Intensified drought over tropical South America, their causes and link to decadal climate variability and global climate change, 22<sup>nd</sup> Conference on Climate Variability and Change, the 2010 American Meteorological Society Annual Conference, Atlanta, Georgia, January 18th, 2010.

Transport of Fire Generated Tracers to the UT as detected by A-Train Measurements, the 2009 Fall AGU Conference, San Francisco, California, December 14-18, 2009.

Transport of Fire Generated Tracers to the UT as detected by A-Train Measurements, the EOS Aura Science Team Meeting, Leiden, The Netherlands, September 14-17, 2009.

Using QuikSCAT to monitor terrestrial surface water cover over the arctic and boreal regions, OVSAT Science Team Meeting, Boulder Colorado, May 18-20, 2009.

Changes of Surface Radiation and Cloudiness over Tropical Rainforests: Cause and Implication to Tropical Ecosystem and Hydrological Cycle, The International Conference on Land Surface Radiation and Energy Budgets: Observations, Modeling and Analysis Beijing, China, March 18-20, 2009.

Intensification of Summer Rainfall Variability in the Southeastern United States in Recent Decades, NOAA's 33rd Climate Diagnostics and Prediction Workshop and CLIVAR Drought Workshop, Lincoln, Nebraska, October 20-24, 2008.

Explore temporal variability of the summer droughts in the SE US and its SST forcing, NOAA CPPA PI Meeting, Silver Spring, Maryland, September 29-October 1, 2008.

Using observations to constrain climate project over the Amazon - Preliminary results and thoughts, CCSM Climate Variability Working Group Session, Breckenridge, Colorado, June 19, 2008.

- Causes and Effect of the Change in Moisture Transport from the Atlantic Ocean to South America in Recent Decades, The 2008 Ocean Sciences Meeting, Section 057 "Ocean-atmosphere Exchange and Meridional Transport in Global Water and Energy Cycle." Orlando, Florida, March 4, 2008.
- Role of convection over the Tibetan Plateau in seasonal hydration of the global tropical stratosphere, Reunion Island International Symposium, Saint-Gilles, Reunion Island, France, Nov. 5-9, 2007.
- Investigate the influence of the Amazon rainfall on westerly wind anomalies and the 2002 Atlantic Nino using QuikScat, Altimeter and TRMM data, The 2007 EUMETSAT Meteorological Satellite Conference and the 15th American Meteorological Society Satellite Meteorological & Oceanography Conference, Amsterdam, The Netherlands, September 22-28, 2007.
- Observed Influence of Amazon rainfall on Atlantic ITCZ and Atlantic Niño, AGU 2007 Joint Assembly, Acapulco, Mexico, May 21-25, 2007.
- Contribution of Convection over Tibetan Plateau to the "tape recorder" signal, AGU 2006 Fall Conference, San Francisco, California, December 11-15, 2006.
- Contribution of Convection over Tibetan Plateau to the "tape recorder" signal, NASA Aura Science Team Meeting, Boulder, Colorado, September 11-15, 2006.
- Water Cycle between Ocean and Land and Its Influence on Climate Variability over the South American-Atlantic Regions as Determined by SeaWinds Scatterometers, NASA Ocean Vector Wind Science Team Meeting, Salt Lake City, Utah, July 5-9, 2006.
- Observed Influence of Amazon rainfall on Interannual Climate Variability of Tropical Atlantic Ocean, Western Pacific AGU, Beijing, China, July 24-27, 2006.
- Aerosol Impacts on Cirrus Clouds Over the Asian Monsoon Region, AGU 2006 Joint Assembly, Baltimore, Maryland, May 23-26, 2006.
- A trajectory analysis of the evolution of convective detrainment in the tropical upper troposphere using AIRS, AGU 2006 Joint Assembly, Baltimore, Maryland, May 23-26, 2006.
- What controls ~~the rainfall~~-seasonality and ~~its~~ interannual variations of rainfall over the South American monsoon region-Amazonia? The 8th International Conference on Southern Hemisphere Meteorology and Oceanography, Foz do Iguaçu, Brazil, 24-28 April 2006.
- The influence of pre-seasonal land surface condition on South American Monsoon Onset and its Interannual variability, The 18th Conference on Climate Variability and Change, AMS Annual Conference, Atlanta, GA, Jan. 29-Feb. 3, 2006.
- Convective Transport over the Tibetan Plateau - A short-circuit of water vapor and polluted air to the global stratosphere - A preliminary investigation based on Aura and other A-train observations. 2005 Fall AGU Conference, San Francisco, California, December 9, 2005.

- Role of Cold Air Incursions in Monsoon Onset over South America, IAMAS, Beijing, China, August 2-11, 2005.
- Variability of the Atlantic ITCZ associated with convectively coupled Kelvin waves detected by QuikSCAT, Ocean Vector Wind Science Team Meeting, Seattle WA, March 22-24, 2005.
- Influence of increased atmospheric CO<sub>2</sub> on the length of dry season over Amazonia, Workshop on Analyses of Climate Model Simulations for the IPCC AR4, Honolulu, Hawaii, March 1-4, 2005.
- Cloud Property and its Implications to Water Vapor Transport Mechanisms over Tibetan and Asian Monsoon Region deduced from “A-Train” Observations, Aura science team meeting, Pasadena, California, February 28 – March 3, 2005.
- The influences of South American rainfall on the climate variability of the tropical Atlantic Ocean, CLIVAR Atlantic Science Conference, Miami, January 31-February 2, 2005.
- Influence of biomass burning on the dry to wet transition over Amazonia as simulated by NCAR Regional climate model. AGU Fall Conference, San Francisco, California, December 13-17, 2004.
- Influences of biomass burning on the dry-to-wet transition over Amazonia. The First Symposium of NASA Earth System Scholar Network, College Park, Maryland, September 26-28, 2004.
- Water and energy variation associated with the wet season onset over the Amazon, The Third International Scientific Conference of Large-scale Biosphere-Atmosphere in Amazonia, Brasilia, Brazil, July 27-29, 2004.
- Can Amazon rainfall influence Winter Weather over Europe and North America and North Atlantic? The Third International Scientific Conference of Large-scale Biosphere-Atmosphere in Amazonia, Brasilia, Brazil, July 27-29, 2004.
- Influence of biomass burning on wet season onset over Amazon. The Third International Scientific Conference of Large-scale Biosphere-Atmosphere in Amazonia, Brasilia, Brazil, July 27-29, 2004.
- Influence of Land Surface on Transition from Dry to Wet Season over South America. The Third International Scientific Conference of Large-scale Biosphere-Atmosphere in Amazonia, Brasilia, Brazil, July 27-29, 2004.
- A Seasonal Analysis of the Influence of Convection on Tropical and Subtropical UTH using TRMM Precipitation Radar, AGU Spring Conference, Montreal, Canada, May 2004.
- Synoptic and diurnal variations of oceans surface winds, fluxes and temperatures over the Caribbean Sea and Western tropical Atlantic induced by continental rainfall, AGU 2004 Ocean Sciences Meeting, Portland, Oregon, January 26-30, 2004.
- Potential applications of Aura data in determining the influences of convective type and Rossby wave breaking on tropical and subtropical upper tropospheric water vapor, AGU 2003 Fall Conference, San Francisco, California, December 7-12, 2003.
- Potential applications of Aura data in determining the influences of convective type on tropical and subtropical upper tropospheric water vapor, Aura science team meeting, Pasadena, California, September 30 – October 3, 2003.

- Applying QuikSCAT and SWS 12 hour wind on Prediction of the South American Low-level jets,” SeaWinds Cal/Eval science team meeting, Arcadia, California, September 28-October 2, 2003.
- Influence of Amazon Rainfall on the North Atlantic Oscillation, SeaWinds Cal/Eval science team meeting, Arcadia, California, September 28-October 2, 2003.
- Interaction between ocean surface wind and precipitation over land as observed by QuikSCAT, SeaWinds Cal/Eval science team meeting, Arcadia, California, September 28-October 2, 2003.
- The Influence of Cold Air Intrusion on the Wet Season Onset over Tropical South America, NOAA Pan American Climate Research Program PI meeting, Boulder, Colorado, September 15-20, 2003.
- Influence of Land Surface on Transition from Dry to Wet Season over South America, NOAA Pan American Climate Research Program PI meeting, Boulder, Colorado, September 15-20, 2003.
- Influence of Cross-Andes Flow on the South American Low-Level Jet, NOAA Pan American Climate Research Program PI meeting, Boulder, Colorado, September 15-20, 2003.
- Observed influence of Amazon rainfall on North Atlantic Oscillation and the winter weather over North Atlantic and adjacent continents, IUGG 2003, June 30-July 11, 2003.
- Influence of land surface on transition from dry to wet season over South America, IUGG 2003, June 30-July 11, 2003.
- Influence of Amazon rainfall on the winter weather over North Atlantic and adjacent continents, AUG Spring Conference, Nice, France, April 4-9 2003.
- Relative importance of the land surface latent flux and large-scale moisture transport in determining the onset of rainy season over Amazon, AMS 14<sup>th</sup>. Global/Climate Symposium, Long Beach, California, February 10-13, 2003
- Forecasting South American Low-Level Jets Based on NASA QuikSCAT Ocean Surface Winds, SeaWinds science team meeting, Oxnard, California, January 14-16, 2003.
- Influence of the Madden-Julian Oscillation on tropical South American precipitation during Austral summer, AGU 2002 Fall Conference, San Francisco, California, December 6-10, 2002.
- Mechanism of the Wet Season Onset over Tropical South America, AGU 2002 Fall Conference, San Francisco, California, December 6-10, 2002.
- The Observed influence of Amazon Rainfall on Winter Meteorological Condition over the North Atlantic and Adjacent Continents, The LBA 2<sup>nd</sup>. International Conference, Manaus, Brazil, July 8-10, 2002.
- Influence of Amazon rainfall on the atmospheric circulation over the North Atlantic detected by QuikSCAT and TRMM, AGU 2001 Fall Conference, San Francisco, California, December 10-14, 2001.
- Dynamics of the onset of South American Monsoon, 8th Scientific Assembly of IAMAS (International Association of Meteorology and Atmospheric Sciences), Innsbruck, Austria, 10-18 July 2001.



- Influence of Tropical Pacific and Atlantic SSTs on Amazon Rainfall, Sixth Annual CCSM (Community Climate System Model) Workshop, Breckenridge, Colorado, June 26 to 28, 2001.
- The influence of Rossby wave breaking on irreversible mixing of water vapor between tropical upper troposphere and extratropical lower stratosphere, AGU (American Geological Union) 2001 Spring Conference, Boston, Massachusetts, May 29-June 2, 2001.
- Interaction between the Pacific, Amazon rainfall and Atlantic Ocean, Oceanography International Conference 2001, Miami, April 2-5, 2001.
- Applying TRMM and NASA scatterometer observations to investigate the mechanism that control the onset of the rainy season in the Tropical South America, the Pacific Ocean Remote Sensing Conference, Goa, India, December 5-9, 2000.
- Low-level jet, cross-equatorial flow and onset of the wet season in tropical South America, NOAA Climate Diagnostic Workshop, Lamont, Columbia, Palisades, New York, October 23-27, 2000.
- Numerical experiments to determining the influence of sea surface temperatures over tropical oceans on the seasonal distribution of precipitation in the Equatorial Amazon, 6th. Intl. Conf. on Southern Hemisphere Meteorology and Oceanography, Santiago, Chile, April 3-7, 2000
- Influence of sea surface temperature over tropical oceans on the seasonal distribution of precipitation in the equatorial Amazon, AGU 1999 Fall Conference, San Francisco, California, December 13-17, 1999.
- Influences of ENSO SST anomalies and winter storm-tracks on the interannual variability of upper troposphere water vapor, AGU Champman Water Vapor Conference, Potomac, Maryland, October 12-15, 1999.
- UARS MLS observations of cross-tropopause water vapor transport during Northern Hemisphere winter, AGU Champman Water Vapor Conference, Potomac, Maryland, October 12-15, 1999.
- What processes initiate the wet season in the tropical South America? Third GEWEX (Global Energy and Water Experiment) International Conference, Beijing, China, June 15-19, 1999.
- The Influence of ENSO on the Upper Tropospheric Water Vapor in the mid-latitudes, 1998 AGU Spring Conference, Boston, Massachusetts, May 26-29, 1998.
- Influence of tropical SST and extratropic atmosphere on the interannual variability of the tropospheric water vapor, AGU 1997 Spring Conference, Boston, Massachusetts, May 26-29, 1997.
- Control of the ocean-land-atmosphere coupling on the seasonal precipitation in the Equatorial Amazon, AMS (American Meteorological Society) 9th Conference on the Interaction of the Sea and Atmosphere, Phoenix, Arizona, January 14-16, 1998.
- Response of the upper troposphere humidity and moisture transport to changes of tropical hydrological cycle. A comparison between observations and a GCM over ENSO Cycles, IAMAS international conference on Earth-Ocean-Atmosphere Forces for Change, Melbourne, Australia, July 1-9, 1997.

The effect of convection on the land surface radiative fluxes derived from the in-situ and satellite observations, AMS Ninth Conference on Atmospheric Radiation, Long Beach, California, February 2-7, 1997.

The influence of ENSO on global upper troposphere water vapor transport, 1996 Fall AGU Conference, San Francisco, California, December 15-19.

Mechanism that controls the seasonal variation of convective activity over the Amazon basin, 1996 Fall AGU Conference, San Francisco, California, December 15-19, 1996.

Interannual variations of tropics-to-extratropics water vapor transport and their impact on the upper troposphere humidity in mid-latitudes, Second International Scientific Conference of GEWEX, Washington, DC, June 17-21, 1996.

Clouds-land surface interaction in the Amazon region: A case study using satellite and *in situ* observations, 75<sup>th</sup> IUGG (International Union of Geodesy and Geophysics) General Assembly, Boulder, Colorado, July 8, 1995.

Changes of global upper troposphere water vapor forced by tropical deep convection, 18<sup>th</sup> Pacific Regional Congress, Beijing, China, June 1995.

### **Graduate Students Advised:**

#### **Current:**

Kai Zhang, 2012-present, PhD Candidate

Adam Bowerman, 2012-present, PhD program

Lei Yin, in PhD program, 2010-present, PhD Candidate).

(2009 – present, PhD Candidate)

#### **Graduated with PhD and their current positions:**

Lei Huang (2013): Postdoctoral Research, NASA JPL.

Marilee Roell, (2012): Mission Engineering, NASA Langley Laboratory.

Paola Arias (2011): Tenure track assistant professor, Universidad de Antioquia, Columbia

Katia Fernandes (2009): researcher scientist, Columbia University

Yan Zhang (2008): Research scientist: NASA Goddard Space Flight Center

Jonathan Wright (2006), Associate Professor: Tsinghua University.

Wenhong Li (2003): Duke University, Tenure track Assistant Professor

**Graduated with MS:**

Ze Yang (2013): Com

Tong Ren (2013): PhD program, Texas A&M

Arnaud Monges (2003): Weather Forecast, France.

Naysha Morris (2002, AAAS Mass Media Fellowship): Georgia Environmental Protection Agency

Bin Zhu (1998): Assistant Professor, Oregon State University

**Undergraduate Research Advised:**

Jonathan Weyn-Vanhentenryck (2013-2014), Physics Honor Thesis

Adam Bowerman (2010-2012): Geoscience Honor Thesis

Bao Wen, 2010 Summer

Michael Young (2006, 2007 Georgia Tech Presidential Award)

James Blangler (2006)

Ausuka Suzuki (2005)

Nike Raj (2005)

Chad Cross (2004)

Melanie Snow (2003)

Timothy Atkins (2001)

Bryan Henry (2000)

**Ph.D Dissertation Committees:**

Ming Jie, Lei Huang, Marilee Roell, Hieu H. Nguyen, Paola Arias, Enrique Rosero, Katia Fernades, Yan Zhang, Jonathon Wright, Jiangfeng Wei, Wenhong Li, Carissa Howard, Wei Liao, Dennis Robinson, Brant McDaniel, Yan Huang, Ray Mooring, Anton Darnenov, Jun Jian, Mi Zho, Qing Lu, Qian Tan, Brain Dinunno, Amy Tidwell (Civil Engineering), Christos Fountoukis (Chemical Engineering)

**Research Scientists and Staff Supervised:**

Dr. Bing Pu, Postdoctorial Fellow, March 2014 – present

Dr. Ying Sun, Postdoctorial Fellow, March 2014 - present

Dr. , UCAR-PACE postdoctoral research, 2011-2013, Postdoctorial researcher, January 2013-October 2014.

Dr. , Postdoctoral researcher, 2011-2012

Dr. Diandong Ren, Research Scientist Associate V, 2008 – 2010.

Dr. Nicole Smith-Downey, Postdoctoral Researcher, 2008 – 2010

Dr. Wenhong Li: Research Scientist II, 2003 – 2009.

Dr. Huilin Gao: Research scientists II, September 2005 – 2007.

Dr. Robinsin Juarze: Post-doctoral researcher, August 2005 – 2007.

Dr. Hui Wang: Senior research scientists, 1998 - 2006

Dr. Yuanlong Hu: Post-doctoral researcher, 2003 –2006

Dr. John McCormick: Post-doctoral researcher, 1998-2000

Ms. Mingxuan Chen: Research scientist II, 1996 - 2006

Ms. Alison Walker: Computer programming consultant, 2004-2006.

**Service Activities within universities:**

Associate Chair

Climate dynamics discipline leader

University Gender Equity Council members, spring 2013-present

Leading the collaboration initiative between Jackson School of Geoscience (JSG) and NASA Jet propulsion Laboratory (JPL), including preparation and support of Dean's visit of JPL in July 2013, hosted the direct of the Center for Climate Science from JPL in April 2014, and the Associate Director for Research of the Earth Science Division of NASA's Science Mission Directorate in Oct 2014. Setup a JSG/JPL postdoctoral fellow position.

Arranging and hosted the visit of Dr. Jack Kaye (the Associate Director for Research of the Earth Science Division, NASA's Science Mission Directorate), October 29-31, 2014.

Strategic Plan Committee, Department of Geological Sciences

Graduate admission committee, Spring 2014

UTIG Search committee for oceanographer, Spring 2011

Member, IT Committee, Department of Geological Sciences, The University of Texas at Austin.  
Member, Science Steering Committee, the Environmental Science Institute, The University of Texas at Austin, Fall 2008 – Spring 2009.  
Chair, Graduate Admission Committee, Fall 2004 – Spring 2008  
Tenure and promotion committee, Fall 2003-Spring 2004  
Chair advisory committee, Fall 2002 – Spring 2003  
Chair search committee, Spring 2002  
Moving committee, Spring 2002  
Graduate Admission Committee, 2000 - 2003  
Award Committee, Spring 2000  
Co-chair, EAS colloquium, Fall 2000, Spring 2001  
Chair, Ph.D Preliminary Examinations Committee, Fall 1996—Spring 1998  
Chair and member, Grade Appeal Committees, Spring 1996—Spring 1997  
Chair, Departmental Seminar Series, Fall 1995 and Spring 1996  
Member of two Faculty Search Committees  
Member of Departmental Head Search Committee

**Out-Reach Activities:**

- BBC Natural History One Planet: July 14, 2014. Cloud-rainforest interaction.
- KEYE-TV: Interview about the effects of the rainforest on the climate, April 23, 2014.
- Invited speaker: Amazon rainforest and Rainfall in a changing climate, Undergraduate Geological Club, the Jackson School of Geosciences, The University of Texas at Austin. April 11, 2013.
- Collaboration with TWDB, regular working meetings, and two presentations report evaluation of most recent climate models' simulations and projections for Texas and also progress on drought early warning indicator.
- Green Mountain Energy Company, Climate Change: Observations and Causes, Austin, Texas, May 7th, 2010.
- Discovery Channel: Work with Bey Brosser for TV production using result from my Amazon climate-rainforest research. March 2010.
- Attending Governor and Mrs. Perdue State Luncheon for U.N. Secretary-General, Atlanta, Georgia, May 8, 2008.