JONATHAN H. JIANG

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Education

- **Ph.D. in Atmospheric Physics**, York University (1996)
  Dissertation*: Impact of the Pinatubo aerosol layer on climate: a GCM simulation compared with observations.*
  Advisors: John C. McConnell, Wayne Evans, Ralph Nicholas
- **M.Sc. in Astrophysics**, York University (1991)
  Thesis: *A Study of Nonvariable Supergiants and Cepheid Temperature and Reddening with Visual, IR and IUE Observations.*
  Advisors: Nancy R. Evans, John Caldwell, Marshall McCall
- **B.Sc. in Astrophysics**, Beijing Normal University (1985)

Professional Experiences

- **Research Scientist V** (2013-present); Research Scientist IV (2004-2012), Scientist III (2002-2003)
  Jet Propulsion Laboratory, California Institute of Technology, U.S.A.
  Project Scientist, Joint Inst. for Regional Earth System Science & Engineering, Univ. of California, Los Angeles
  Major responsibilities include:
  - Funded Research Projects: (* Indicates proposals ranked "Excellent" by the Review Panels)
    - NASA ACMAP: Principal Investigator (2015-present)*
    - NASA NODA: Principal Investigator (2014-present); Co-Investigator (2014-present)
    - DOE DE-FOA-0000919: Co-Principal Investigator /UCLA (2014-present)
    - NASA IIP: Co-Investigator (2014-present)
    - California Energy Commission: Co-Investigator (2015-present)
    - NASA AIST-CMDA: Co-Investigator (2015-present)
    - NASA AST: Co-Investigator (2007-present); Principal Investigator (2011-2014)*
    - NASA COUND Program: Principal Investigator (2011-2014)*
    - NASA MAP Program: Co-Investigator (2008-2011)*; Principal Investigator (2013-present)*
    - NASA CMAC: Co-Investigator (2012-present)
    - NASA NEWS Program: Co-Investigator (2012-present)
    - NASA CloudSat/CALIPSO Science Team: Co-Investigator (2007-present)
    - NASA AC Program: Co-Investigator (2002-present); Principal Investigator (2007-2009)
    - NASA IDS Program: Co-Investigator (2007-2009); Principal Investigator (2010)
    - NSF Co-Investigator (2009-2012)
  - Postdoctoral researchers supervised/co-supervised:
    - Lei Huang (2013-present), Caltech postdoctoral scholar, Ph.D. from University of Texas, Austin.
    - Hanii Takahashi (2013-2015), Caltech postdoctoral scholar, Ph.D. from City College of New York.
    - Yuan Wang (2013-present), Caltech postdoctoral scholar, Ph.D. from Texas A&M, College Station.
    - Jennifer Small (2009-2012), currently at University of Hawaii as an assistant professor.
    - Rohini Bhawar (2009-2011), currently at University Pune as an assistant professor.
    - Longtao Wu (2009-2010), currently JPL employee.
  - Graduates, undergraduates, and high school summer students mentored/co-mentored:
    - Mark Bauman, University of Hawaii at Manoa, Hawaii (2015)
    - Patrick Brown, Duke University, North Carolina (2014).
    - Ryan Stanfield, University of North Dakota (2014).
    - Alice Zhai, La Canada High School, California (2014)
    - Erica Dolinar, University of North Dakota (2013).
    - Sarah Worden, Cresenta Valley High School, California (2013).
    - Zachary Lawrence, New Mexico Institute of Mining and Technology (2013)
    - Daniel Russell, University of California, Los Angeles (2013)
    - Nick Tang, University of California, Berkeley (2010, 2012)
    - Jinqiang Chen, California Institute of Technology (2012-2013)
    - Lei Huang, University of Texas, Austin (2009; 2012).
    - Huiwen Chung, University of Michigan, Ann Arbor, Michigan (2009).
  - Service on Students' Thesis Committees:
    - Mark Bauman, Ph.D. candidate, University of Hawaii at Manoa, Hawaii (2015-present).
    - Ryan Stanfield, Ph.D. candidate, University of North Dakota (2014-present).
    - Betsy Berry, Ph.D. candidate, University of Utah (2013-present).
    - Jinqiang Chen, Ph.D. candidate, California Institute of Technology (2013-2015).
    - Erica Dolinar, M.Sc. candidate, University of North Dakota (2012-present).
    - Lei Huang, Ph.D candidate, University of Texas, Austin (2009-2013).

- MLS project: Upper tropospheric measurements bi-weekly summary (2005-present); MLS forward model development, implementation and simulation (2002-2004); MLS ice cloud retrieval/validation (2002-2009); Stratospheric gravity wave studies using UARS MLS, GPS and other satellite data, as well as model simulations, including development of a gravity wave simulator for GCM (2002-2005).

- **Caltech Postdoctoral Scholar** (1999-2001), California Institute of Technology, USA
  Major Achievements:
  - Conducted atmospheric convection, water vapor, and gravity wave studies using GPS and UARS MLS data.
  - Developed a microwave radiative transfer model for cloud ice simulations and retrievals for MLS missions.
- **Research Associate** (1998-1999), Université du Québec à Montréal, Canada
  Achievements:
  - Member of the NARCM (Northern Atmospheric Regional Climate Model) team responsible for development and testing of convective cloud parameterization for the NARCM project.
  - Implemented a fast stochastic cloud scheme into the NARCM model, and conducted model simulations.
  - Part-time Physics Lecturer: Instructed *Classic Mechanics* and *Introductory Astronomy* (twice) for the Physics Department at Trent University, Canada (1997-1998); Instructed *Introductory Astronomy* for the Physics Department at University of Waterloo, Canada (1999).
- **Postdoctoral Research Fellow** (1996-97), McGill University, Quebec, Canada
  Advisor: Jean-Pierre Blanchet
  Achievements:
  - Developed a fast stochastic cloud scheme for parameterization of cloud properties using sub-scale vertical velocity spectrum.
  - Part-time Physics Lecturer; Instructed *Introductory Astronomy* for the Physics Department at University of Waterloo, Canada (1996).
- **Research Assistant** (1992-95), Centre for Research in Earth & Space Sciences, York University, Canada
  - Assisted the development of radiative transfer codes for Canadian Middle Atmospheric Model (CMAM) and conducted model simulations for the CMAM project.
- **Physics Lab Instructor** (1990-95), Department of Physics and Astronomy, York University, Canada
  - Instructed *Advanced Physics Laboratory* to physics major students for five years.
- **Assistant Astronomer** (1989-1991), Space Astrophysics Lab, Institute of Terrestrial and Space Sciences, Canada
  - Worked on IUE (International Ultraviolet Explorer) satellite data reduction for supergiant stars.
  - Combined IUE satellite observations with the ground based visual and IR data for comparison and evaluation of the Kurucz stellar atmospheric models for Cepheids and nonvariable supergiants; Conducted numerical simulations using Kurucz stellar atmospheric model.
- **Assistant Physics Lecturer** (1985-1988), Nanking Institute of Technology, China
  - Instructed *Introductory Physics Laboratory* course and *Introductory Astronomy* for the Physics Department.

Selected Awards

- **NASA Exceptional Achievement Medal** (2013) *for outstanding achievements in using NASA satellite observations for climate studies and climate model evaluations, which contributed to the Intergovernmental Panel for Climate Change 5th Assessment Report.*
- **JPL Team Bonus Award** (2012) *for CMIP5 climate model evaluation publication.*
- **NASA Exceptional Achievement Medal** (2010) *for pioneering a new approach to quantifying the impact of air pollution on clouds and climate, through combining observations from multiple NASA satellites.*
- **NASA TC4 Team Achievement Award** (2008) *for outstanding contribution to NASA TC4 field experiment.*
- **JPL Team Bonus Award** (2007) *for Aura MLS Cloud Ice product.*
- **NASA Group Achievement Awards** (2006) *for Aura Microwave Limb Sounder Science Team.*
- **Ed Stone Award for Outstanding Research Paper** (2006) *Co-Author (2006)*
- **JPL Team Bonus Award** (2005) *for EOS MLS Atmospheric Science Publications Team.*
- **NASA Group Achievement Award** (2005) *for the Aura Project.*
- **GSFC Group Achievement Award** (2005) *for the Aura Science Team.*
- **NASA Space Act Award** (2005) *for significant contribution to MLS cloud forward model and level 2 software.*
- **NASA Group Achievement Award** (2005) *for Aura MLS Ground Data System Development Team.*
- **JPL SPOT Award** (2004) *for outstanding journal publications – four lead author publications in 2004.*
- **JPL SPOT Award** (2002) *for successfully development of MLS cloud forward model.*
- **Canadian NSERC Research Scholarship Award** (1999) *for outstanding early career scientists.*
- **American Meteorological Society Global Change Scholarship Award** (1996) *for outstanding Ph.D. thesis.*
- **York University Teaching Award** (1994) *for outstanding instructors and teaching assistants.*
- **Ontario Scholarship Awards** (1989, 1992) *for outstanding graduate students of Ontario Province, Canada.*

Scientific Publications (complete list on following pages)

- 106 peer-reviewed scientific publications to date.
- 4087 total citations.
- H-Index 31.

Invited Seminars / Invited Speakers or Presentations

- Invited presentation, AMS annual conference, Long Beach (1996).
- Invited presentations, COSPAR conference, Houston (2002); Paris (2004).
- Invited seminar, York University CRESS Seminar Series (2005).
- Invited seminar (video-taped), Environmental Canada (2005).
- Invited seminar, McGill University and UQAM Joint Atmospheric Seminar (2005).
- Invited presentation, COSPAR conference, Beijing (2006).
- Invited seminar, GSFC Earth Science Seminar (2007).
- Invited seminar, University of California, Irvine, Atmospheric Science Seminar (2008).
- Invited seminar, Northrop Grumman Corporation Earth Science Seminar (2008).
- Invited presentation, invited press release, AGU Joint Assembly, Fort Lauderdale, Florida (2008).
- Invited seminar, University of Utah, Salt Lake City, Atmospheric Science Seminar (2009).
- Invited seminar, University of California, Los Angeles, Atmospheric Science Seminar (2010).
- Invited seminar, City College of New York and GISS, Joint Earth Science Seminar (2010).
- Invited seminar, Lawrence Berkeley National Laboratory, Earth Science Seminar (2011).
- Invited seminar, NASA Ames Research Center, Invited Earth Science Seminar (2011).
- Invited Seminar on CMIP5 climate model evaluation, Lawrence Livermore National Laboratory (2012).
- Invited seminar, Scripps Institution of Oceanography and UC, San Diego, Earth Science Seminar (2012).
- Invited seminar, University of California, Berkeley, Earth Science Seminar (2012).
- Invited seminar, GFDL-Princeton University Joint Climate Science Seminar (2012).
- Invited seminar, University of North Dakota, Earth Science Seminar (2012).
- Invited seminar, Texas A&M University Earth Seminar (2013).
- Environmental Canada-CCCMA Invited Seminar (2013).
- MICRO & MRI Invited Seminar on Climate model evaluations (canceled due to NASA travel restriction, 2013).
- Invited seminar, Ewha Womans University, Seoul, Korea (2013).
- Invited presentation, AGU Fall Meeting (2014).

Conference Session Chairs

- Session chair, aerosol-cloud-precipitation interactions, AGU Fall Meeting (2008).
- Session chair, impact of pollution on clouds, precipitation and climate, AGU Fall Meeting (2009).
- Session chair, effect of aerosols on water cycle and climate, AGU/WPGM Meeting (2009).
- Session chair, using multiple satellite observations for climate model evaluations, AGU/AOGS Meeting, (2010).
- Session chair, evaluation of climate model simulations of clouds and water vapor, AGU Fall Meeting, (2011).
- Science committee co-chair, CALIPSO-CloudSat-EarthCare joint workshop, Paris, (2012).
- Session chair, CMIP5 climate model evaluations and analysis, AGU/AOGS/WPGM Meeting (2012).
- Session chair, CMIP5 and post-CMIP5 model evaluations and improvements, AGU Fall Meeting (2012).
- Session chair, aerosols and clouds, ISCCP-30 Meeting (2013).
- Session chair, aerosols and clouds, AMS Annual Meeting (2014).
- Session chair, climate sensitivity, AGU Fall Meeting (2014).
- Session organizer/chair, atmospheric convection & composition, AMS Annual Meeting (2015).

Other Professional and Volunteered Activities:

- **Professional Memberships**: American Geophysical Union; American Meteorological Society (1995-present).
- **Editor**, Earth and Space Science, American Geophysical Union (2014-present).
- **Associate Editor**, Journal of Geophysical Research – Atmosphere (2013-present).
- **Member**, AMS Atmospheric Chemistry Committee (2014-present).
- **Reviewer**, for NASA, NSF, DOE, ESA, CSA panels (2002-present), AGU, AMS, EGU journals (1996-present), JPL RTD/DRDF/EVI (multiple times since 2003); Reviewed over 150 papers and proposals over the past 10 years.
- **Session chair,** served as session organizers and chairs at major conferences multiple times over the past 10 years.
- **President**, Chinese-American Oceanic and Atmospheric Association, Southern California Chapter (2012-present).
- **Board President,** Foothill Chinese School, La Canada Flintridge, California (2009-2011, 2014-present).
- **Secretary**, Federation of Chinese Students and Professionals in Canada (1996-1999).
- **Vice-President**, York University Graduate Students Tenant Association (1994-1995).
- **President**, York University Chinese Students and Scholars Association (1993-1994).

Jonathan H. Jiang's Peer-Reviewed Publications

Total Number of Publications: **106**
Total citations: **4087**
H-Index: **31**

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1. **Jiang, J.H.,** et al., An assessment of upper-troposphere and lower-stratosphere water vapor in MERRA, MERRA2, and ECMWF reanalysis using Aura MLS observations, *J. Geophys. Res.*,doi:10.1002/2015JD023752, 2015.
2. Wang, Y., **J. H. Jiang**, H. Su, Atmospheric Responses to the Redistribution of Anthropogenic Aerosols, *J. Geophys. Res*. doi:10.1002/2015JD023665, 2015.
3. Huang, L., **J.H. Jiang**, Z. Wang, H. Su, M. Deng, S. Massie, Climatology of cloud water content associated with different cloud types observed by A-Train satellites, *J. Geophys. Res*., 120, doi: 10.1002/2014JD022779, 2015.
4. Zhai, C., **J.H. Jiang**, H.Su, Long-term cloud change imprinted in seasonal cloud variation: another evidence of high climate sensitivity, *Geophys. Res. Lett.*, doi:10.1029/2015GL065911
5. Takahashi, H., H. Su, **J.H. Jiang**, Error Analysis of Upper Tropospheric Water Vapor in CMIP5 Models using "A-Train" Satellite Observations and Reanalysis Data, *Climate Dynamics*, doi:10.1007/s00382-015-2732-9, 2015.
6. **Jiang, J.H.,** et al., Evaluating the diurnal cycle of upper tropospheric ice clouds in climate models using SMILES observations, *J. Atmos. Sci.* 72, 1022–1044, doi: http://dx.doi.org/10.1175/JAS-D-14-0124.1, 2015.
7. Ao, C., **J.H. Jiang**, A. Mannucci, H. Su, O. Verkhoglyadova, C. Zhai, J. Cole, L. Donner, T. Inversen, C. Morcrette, L. Rotstayn, M. Watanabe, and S. Yukimoto, Evaluation of CMIP5 upper troposphere geopotential height with GPS radio occultation observations, *J. Geophys. Res.*, 120, doi:10.1002/2014 JD022239, 2015.
8. Vergados, P., A. Mannucci, C. Ao, **J.H. Jiang**, H. Su, On the comparisons of tropical relative humidity in the lower and middle troposphere among COSMIC radio occultations and MERRA and ECMWF data sets, *Atmos. Mea. Techniques*, 8, 1789-1797, doi:10.5194/amt-8-1789-2015, 2015.
9. Ruzmaikin, A. H. Aumann, **J.H. Jiang**, Interhemispheric Variability of Earth's radiative components, *J. Atmos. Sci*., accepted, doi:http://dx.doi.org/10.1175 /JAS-D-15-0106, 2015.
10. Ban-Weiss, G., L. Jin, S. Bauer, R. Bennartz, X. Liu, K. Zhang, Y. Ming, H. Guo, and J.H. Jiang, Evaluating clouds, aerosols, and their interactions in three global climate models using satellite simulators and observations, *J. Geophys. Res.* 119, 18, 10,876–10,901, doi:10.1002/2014JD021722, 2014.

11. Zhai, A., **J.H. Jiang**, Dependency of U.S. Hurricane Economic Loss on Maximum Wind Speed and Storm Size, *Environmental Research Letters*, 9, 6, doi:10.1088/1748-9326/9/6/064019, 2014. **ERL Journal Highlight.**

12. Bhawar, R., **J.H. Jiang**, H. Su, M.J. Schwartz, Variation of upper tropospheric clouds and water vapor over the Indian Ocean, *Int. J. Climatol*., doi:10.1002/joc.3942, 2014.

13. Dolinar, E., X. Dong, B. Xi, **J.H. Jiang**, H. Su, Evaluation of CMIP5 simulated clouds and TOA radiation budgets using NASA satellite observations, *Climate Dynamics*, doi:10.1007/s00382-014-2158-9, 2014.

14. Stanfield, R., X. Dong, B. Xi, A. Kennedy, A. Genio, P. Minnis, **J.H. Jiang**, Assessment of NASA GISS CMIP5 and Post-CMIP5 Simulated Clouds and TOA Radiation Budgets Using Satellite Observations: Part I: Cloud fraction and properties, *J. Climate*, doi:10.1175/JCLI-D-13-00558.1, 2014.

15. Su, H., **J.H. Jiang**, C. Zhai, T.J. Shen, J.D. Neelin, G.L. Stephens, and L.Y. Yung, Weakening and Strengthening Structures in the Hadley Circulation Change under Global Warming and Implications for Cloud Response and Climate Sensitivit, *J. Geophys. Res*., 119, 10, 5787–5805, doi:10.1002/2014 JD021642, 2014.

16. Wang, Y., M. Wang, R. Zhang, S. Ghan, Y. Lin, J. Hu, B. Pan, **J.H. Jiang**, M. Molina, Assessing the Impacts of Anthropogenic Aerosols on Pacific Storm Track Using A Multi-Scale Global Climate Model, *Proc. Nat. Acad. Sci*., doi: 10.1073/pnas.1403364111, 2014.

17. Huang, L., R. Fu, **J.H. Jiang**, Impacts of Fire Emissions and Transport Pathways on the Interannual Variation of CO in the Tropical Upper Troposphere, *Atmos. Chem. Phys*., acp-2013-703, 2014.

18. Livesey, N., J. Logan, M. Santee, J. Waters, R. Doherty, W. Read, L. Froidevaux, **J.H. Jiang,** Interrelated variations of O3, CO and deep convection in the tropical/subtropical upper troposphere observed by the Aura Microwave Limb Sounder MLS during 2004–2011, *Atmos. Chem. Phys.* 13, doi:10.5194/acp-13-579-2013, 2013.

19. Jin, J., N. Livesey, G. Manney, **J.H. Jiang**, M. Schwartz, W. Daffer, Chemical discontinuity at the extratropical tropopause and isentropic stratosphere - troposphere exchange pathways diagnosed using Aura MLS data, *J. Geophys. Res*. 118, 10.1002/jgrd.50291, 2013.

20. Huang, L., **J.H. Jiang**, J.L. Tackett, H. Su, R. Fu, Seasonal and diurnal variation of aerosol extinction profile and type distribution from CALIPSO 5-year observation, *J. Geophys. Res*., 118, 10, doi:10.1002/jgrd.50407, 2013

21. Takahashi, H., H. Su, **J.H. Jiang**, Z.J. Luo, S.P. Xie, and J. Hafner, Tropical Water Vapor Variations During the 2006-07 and 2009-10 El Niños: Satellite Observation and GCM Simulation, *J. Geophys. Res*., 118, 16, doi:10.1002/jgrd.50684, 2013

22. Wu, L., H. Su, **J.H. Jiang**, Regional simulation of aerosol impacts on precipitation during the East Asian summer monsoon, *J. Geophys. Res*., 118, doi:10.1002/jgrd.50527, 2013.

23. Su, H., **J.H. Jiang**, Tropical Clouds and Circulation Changes During the 2006-07 and 2009-10 El Niños, *J. Climate*, 26, 2, doi:10.1175/JCLI-D-1200 152.1, 2013.

24. Su, H., **J.H. Jiang**, C. Zhai, V.S. Perun, et al., Diagnosis of Regime-dependent Cloud Simulation Errors in CMIP5 Models Using A-Train Satellite Observations, *J. Geophys. Res*., 118, 7. doi:10.1029/2012JD018575, 2013.

25. Livesey, N., J. Logan, M. Santee, J. Waters, R. Doherty, W. Read, L. Froidevaux, J.H. Jiang, Interrelated variations of O3, CO and deep convection in the tropical/ subtropical upper troposphere observed by the Aura Microwave Limb Sounder (MLS) during 2004–2011, *Atmos. Chem. Phys*., 13, 579-598, doi:10.5194/acp-13-579-2013, 2013.

26. **Jiang, J.H**., H. Su, C. Zhai, V.S. Perun, et al., Evaluation of Cloud and Water Vapor Simulations in CMIP5 Climate Models Using NASA A-Train Satellite Observations, *J. Geophys. Res.* 117, 10.1029/2011JD017237, July 2012. **AGU Journal Highlight; EOS Research Spotlight; NOAA/GFDL News Release; Physics Update highlighted by *Physics Today*.**

27. Wu, L., H. Su, R. Fovell, B. Wang, J. Shen, B. Kahn, S. Hristova-Veleva, B. Lambrigtsen, E. Fetzer, **J.H. Jiang**, Relationship of Environmental Relative Humidity with North Atlantic Tropical Cyclone Intensity and Intensification Rate, *Geophys. Res. Lett*., 39, 20809, 10.1029/2012GL053546, 2012.

28. Kishore, P., I. Velicogna, M.V. Ratnam, **J.H. Jiang**, G. Madhavi, Planetary waves in the upper stratosphere and lower mesosphere during 2009 Arctic major stratospheric warming, *Ann. Geophys*., 30, 1529-1538, 2012

29. Wu, L., H. Su, **J.H. Jiang**, W.G. Read, Hydration or dehydration: competing effects of upper tropospheric cloud radiation on the TTL water vapor, *Atmos. Chem. Phys*. 12, 7727-7735, 10.5194/acp-12-7727-2012, August 2012.

30. Huang, L., R. Fu, **J.H. Jiang**, J.S. Wright, and M. Luo, "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, May 2012.

31. Gu, Y., K. Liou, **J.H. Jiang**, H. Su, and X. Liu, Dust aerosol impact on North Africa climate: a GCM investigation of aerosol-cloud-radiation interactions using A-Train satellite data, *Atmos. Chem. Phys.* 12, 1667-1679, doi:10.5194/ acp-12-1667-2012, February 2012.

32. Rahul, P, R. Bhawar, P. Salvekar, P. Devara, **J.H. Jiang**, Evidence of Atmospheric Brown Clouds Over India During the 2009 Drought Year, *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing* 5, 1, doi:10.1109/JSTARS.2011.2170, 2011.

33. Jin, J., N. Livesey, **J.H. Jiang**, A. Lupu, J. Kaminski, J. McConnell, Seasonal Variation of Trans-Pacific Transport of Carbon Monoxide (CO) in the Upper Troposphere: MLS Observations and GEOS-Chem and GEM-AQ simulations, *Atmos. Chem. Phys. Discuss*. 11, 1, 3219-3250, doi:10.5194/acpd-11-3219-2011, 2011.

34. Zhang, L., Q. Li, L. Murray, M. Luo, H. Liu, **J.H. Jiang**, Y. Mao, D. Chen, M. Gao, and N. Livesey, A tropospheric ozone maximum over the equatorial Southern Indian Ocean, *Atmos. Chem. Phys*. 12, 4279-4296, doi:10.5194/acp-12-4279-2012, April 2012

35. Small, J., **J.H. Jiang**, H. Su, and C. Zhai, Relationship between aerosol and cloud fraction over Australia, *Geophys. Res. Lett*. 38, L23802, doi:10.1029/2011GL049404, 2011.

36. Wu, L., H. Su, **J.H. Jiang**, Regional simulations of deep convection and biomass burning over South America: Part 1. Model evaluations using multiple satellite data sets, *J. Geophys. Res*. 116, D17208, doi:10.1029/2011 JD016105, 2011.

37. Wu, L., H. Su, **J.H. Jiang**, Regional simulations of deep convection and biomass burning over South America: Part 2. Biomass burning aerosol effects on clouds and precipitation, *J. Geophys. Res.* 116, D17209, doi:10.1029/2011 JD016106, 2011.

38. Su, H., **J.H. Jiang**, X. Liu, J.E. Penner, W.G. Read, S.T. Massie, M.R. Schoeberl, P. Colarco, N.J. Livesey, and M.L. Santee, Observed Increase of TTL Temperature and Water Vapor in Polluted Clouds over Asia, *J. Climate* 24, 11, 2728-2736, 2011.

39. Su, H., **J.H. Jiang**, J. Teixeira, A. Gettelman, X. Huang, G. Stephens, D. Vane, and V. Perun, Comparison of Regime-Sorted Tropical Cloud Profiles Observed by CloudSat with GEOS5 Analyses and Two General Circulation Model Simulations, *J. Geophys. Res*., 116, D0910, doi:10.1029/2010 JD014971, 2011.

40. **Jiang, J.H**., H. Su, C. Zhai, S.T. Massie, M.R. Schoeberl, P.R. Colarco, S. Platnick, Y. Gu, and K.N. Liou, Influence of convection and aerosol pollution on ice cloud particle effective radius, *Atmos. Chem. Phys*. 11, 457-463, doi:10.5194/acp-11-457-2011, 2011.

41. L'Ecuyer, T., **J.H. Jiang**, Touring the Atmosphere Aboard the A-Train, Physics of Sustainable Energy II: Using Energy Efficiently and Producing it Renewably, (D. Hafemeister, D. Kammen, B. Levi, & P. Schwartz, eds.), 245-256, Berkeley, American Insitute of Physics, 2011.

42. Chen, W., C. Woods, J. Li, D. Waliser, J. Chern, W. Tao, **J.H. Jiang**, A. Tompkins, "Partitioning CloudSat Ice Water Content for Comparison with Upper-Tropospheric Ice in Global Atmospheric Models," *J. Geophys. Res*. 116, D19206, doi:10.1029/2010JD015179 , October 2011.

43. Kishore, P., M. Ratnam, S. Namboothiri, I. Velicogna, G. Basha, **J.H. Jiang**, K. Igarashi, S.V.B. Rao, and V. Sivakumar, Global 501S-501N distribution of

water vapor observed by COSMIC GPS RO: Comparison with GPS radiosonde, NCEP, ERA-Interim, and JRA-25 reanalysis data sets, *J. Atmos. Solar-Terr. Ph*ys. 73, 1849-1860, doi:10.1016/j.jastp.2011.04.017, May 2011.

44. Li, J., D. Waliser, **J.H. Jiang**, Correction to 'Comparisons of satellites liquid water estimates to ECMWF and GMAO analyses, 20th century IPCC AR4 climate simulations, and GCM simulations', *Geophys. Res. Lett*. 38, L2480, doi:10.1029/2011GL049956, 2011.

45. Zhang, L., Q. Li, J. Jin, H. Liu, N. Livesey, **J.H. Jiang**, Y. Mao, D. Chen, M. Luo, and Y. Chen, Impacts of 2006 Indonesian fires and dynamics on tropical upper tropospheric carbon monoxide and ozone, *Atmos. Chem. Phys*., 11, 10929-10946, doi:10.5194/acp-11-10929-2011, 2011.

46. L'Ecuyer, T., **J.H. Jiang**, Touring the atmosphere aboard the A-Train, Physics Today 63, 7, 36-41, 2010. **Invited.**

47. Su, H., **J.H. Jiang**, J.D. Neelin, B.H. Kahn, J.W. Waters, N.J. Livesey, and Y. Gu, Reply to comment by Roberto Rondanelli and Richard S. Lindzen on Variations of tropical upper tropospheric clouds with sea surface temperature and implications for radiative effects., *J. Geophys. Res.*, 115, D06203, doi:10.1029/2009JD012872, 2010.

48. **Jiang, J.H**. et al., Five-year (2004-2009) Observations of Upper Tropospheric Water Vapor and Cloud Ice from MLS and Comparisons with GEOS-5 analyses, *J. Geophys. Res.* 115, D15103, doi:10.1029/2009JD013256, 2010.

49. Luo, M., C. Boxe, **J.H. Jiang**, R. Nassar, and N. Livesey, Interpretation of Aura satellite observations of CO and aerosol index related to the December 2006 Australia fires, *J. Geophys. Res.* 114, 2853-2862, doi:10.1016/ j.rse.2010.07.003, 2010.

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