

Xian-an Jiang

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Education

- 2004 - Ph.D. (Meteorology), *University of Hawaii at Manoa, Honolulu, USA*
- 1996 - M.S. (Meteorology), *Chinese Academy of Meteorological Sciences, Beijing, China*
- 1993 - B.S. (Meteorology), *Nanjing University of Information and Technology, Nanjing, China*

Research Interests

- Climate dynamics
- Tropical intraseasonal oscillations
- Monsoon variability
- Large-scale atmosphere-ocean interaction
- Atmospheric and coupled GCM modeling

Research Experience

- Assistant researcher, *Joint Institute for Regional Earth System Science and Engineering, University of California, Los Angeles, 2008-present*
- Postdoctoral scholar, *Jet Propulsion Laboratory, California Institute of Technology, 2006-2008*
- Visiting scientist, *Program in Atmospheric and Oceanic Sciences, Princeton University, 2004-2006*
- Postdoctoral fellow, *International Pacific Research Center, University of Hawaii at Manoa, 2004*
- Research assistant, *Department of Meteorology, the University of Hawaii at Manoa, 1999-2004*
- Assistant researcher, *Shanghai Typhoon Institute, China, 1996-1999*

Awards

Visiting Scientist Fellowship, AOS Program, Princeton University, July 2004

Grants

- NOAA/Climate Prediction Program of the Americas (CPPA): Two dominant modes of the subseasonal variability of the Eastern Pacific ITCZ: Connections between extreme events, subseasonal and interannual variability. PI: Xianan Jiang; Co-PI(I)s: Duane Waliser, Stephen Lord, Augustin Vintzileos, and Ming Zhao, 08/01/2009-07/31/2012.
- National Science Foundation/Climate and Large Scale Dynamics Program: “Collaborative research: Vertical heating structure in large-scale coupled tropical waves”. PI: Xianan Jiang, Co-I: Duane Waliser, 10/01/2009-09/30/2012.

Publications

- Jiang, X., D. E. Waliser, W. S. Olson, W.-K. Tao, T. S. L'Ecuyer, J.-L. Li, B. Tian, Y. L. Yung, A. M. Tompkins, S. E. Lang, and M. Grecu, 2009: Vertical heating structures associated with the MJO as characterized by TRMM estimates, ECMWF Reanalyses and forecasts: A case study during 1998-99 winter. *J. Climate*, in press.
- Jiang, X., and D. E. Waliser, 2009: Two dominant modes of subseasonal variability of the eastern Pacific ITCZ. *Geophys. Res. Lett.*, **36**, L04704, doi:10.1029/2008GL036820.
- Jiang, X., and D. E. Waliser, 2008: Northward propagation of the subseasonal variability over the Eastern Pacific Warm Pool. *Geophys. Res. Lett.*, **35**, L09814, doi:10.1029/2008GL033723.
- Jiang, X., D. E. Waliser, M. Wheeler, C. Jones, M.-I. Lee, and S. Schubert, 2008: Assessing the skill of an all-season statistical forecast model for the Madden-Julian Oscillation. *Mon. Wea. Rev.*, **136**, 1940-1956.
- Jiang, X., and N.-C. Lau, 2008: Intraseasonal teleconnection between the North American and western North Pacific Monsoons with a 20-day time scale. *J. Climate*, **21**, 2664–2679.
- Jiang, X., N.-C. Lau, I. M. Held and J. J. Ploshay, 2008: Mechanisms of the Great-Plains low-level jet as simulated in an AGCM. *J. Atmos. Sci.*, **64**, 532-547.
- Jiang, X., N.-C. Lau, and S. A. Klein, 2006: Role of the eastward propagating convective episodes on the diurnal cycle and seasonal mean of the summertime rainfall over the U.S. Great-Plains. *Geophys. Res. Lett.*, doi:10.1029/2006GL027022.
- Klein, S. A., X. Jiang, J. Boyle, S. Malyshev and S. Xie, 2006: Diagnosis of the summertime warm and dry bias over the U. S. Southern Great Plains in the GFDL climate model using a weather forecasting approach. *Geophys. Res. Lett.*, **33**, L18805, doi:10.1029/2006GL027567.
- Jiang, X. and T. Li, 2005: Reinitiation of the boreal summer intraseasonal oscillation in the tropical Indian Ocean. *J. Climate*, **18**, 3777-3795.
- Jiang, X., T. Li and B. Wang, 2004: Structures and mechanisms of the northward propagating boreal summer intraseasonal oscillation. *J. Climate*, **17**, 1022-1039.
- Gu, J., X. Jiang, H. Yin, and Y. Xu, 2000: The operational prediction results of the East China tropical cyclone model and improvement of the model. *J. Tropical Meteorology*, **16**, 55-61 (in Chinese).
- Gu, J., H. Yin, Y. Xu, X. Jiang, and X. Liang, 2000: The improvement and application of MM5 in numerical prediction of Shanghai Regional Meteorological Center. *J. Applied Meteorology*, **11**, 189-198 (in Chinese).
- Jiang, X. and Y. Zhu, 1998: A numerical study on factors affecting unusual motion of TC 9414 (Doug). *J. Applied Meteorology*, **9**, 36-47 (in Chinese).
- Zhang, Q., X. Jiang, and J. He, 1996: Air-sea coupling modes of tropical Pacific SSTA and wind stress fields. *J. Tropical Meteorology*, **2**, 129-136 (in English).
- Zhang, Q., X. Jiang, and J. He, 1996: Air-sea coupling modes of tropical Pacific SSTA and wind stress fields. *J. Tropical Meteorology*, **1**, 43-50 (in Chinese).

Manuscripts in preparation

- Jiang, X., and coauthors, 2009: Vertical structures of cloud water associated with the boreal summer intraseasonal oscillation based on CloudSat observations. *Climate Dynamics*, to be submitted.

Presentations

- Jiang X.: Intraseasonal Oscillation over the Eastern Pacific ITCZ: Northward Propagation, 20 & 40-day Modes, and Interannual Variability, *Atmospheric Chemistry, Dynamics and Radiation Seminar Series, Jet Propulsion Laboratory, Pasadena, CA*, June 2009.
- Jiang X.: Intraseasonal Oscillation over the Eastern Pacific ITCZ: Northward Propagation, 20 & 40-day Modes, and Interannual Variability, *Department of Atmospheric and Oceanic Sciences, University of California, Los Angeles, CA*, May 2009.
- Jiang X., D. E. Waliser, J.-L. Li, and C. Woods: Vertical structures of cloud water associated with the boreal summer intraseasonal oscillation based on CloudSat observations, *the 89th American Meteorological Society annual meeting, Phoenix, AZ*, January 2009.
- Jiang X., and D. E. Waliser: Two dominant modes of subseasonal variability of the eastern Pacific ITCZ, *the 89th American Meteorological Society annual meeting, Phoenix, AZ*, January 2009.
- Jiang X., D. E. Waliser, M. C. Wheeler, C. Jones, M. I. Lee, and S. Schubert: Assessing the skill of an all-season statistical forecast model for the Madden-Julian Oscillation, *the 88th American Meteorological Society annual meeting, New Orleans, LA*, January 2008.
- Jiang, X., D. E. Waliser, J. L. Li, B. Tian, W. S. Olson, M. Grecu, W. -. K. Tao, S. E. Lang, A. M. Tompkins, and T. S. L'Ecuyer: Characterizing the vertical latent heating structure of the MJO using TRMM, *the 88th American Meteorological Society annual meeting, New Orleans, LA*, January 2008.
- Jiang, X., and N.-C. Lau: Intraseasonal teleconnection between North American and Western North Pacific monsoons with 20-day time scale, *the 88th American Meteorological Society annual meeting, New Orleans, LA*, January 2008.
- Jiang, X., D. E. Waliser, M. Wheeler, C. Jones, M.-I. Lee, and S. Schubert: Assessing the skill of an all-season statistical forecast model for the Madden-Julian Oscillation, *MJO Workshop "New Approaches to meet the Challenge of the Madden-Julian Oscillation", Irvine, California*, November, 2007.
- Lee, M.-I., S. D. Schubert, M. J. Suarez, D. E. Waliser, and X. Jiang: Assessing the Impacts of Tropical Subseasonal Variability on the Extratropics: An Idealized Approach. *NOAA's 32nd Annual Climate Diagnostics and Prediction Workshop, Tallahassee, Florida*, October 2007.
- Jiang, X., D. E. Waliser, M. Wheeler, C. Jones, M.-I. Lee, and S. Schubert: Assessing the skill of an all-season statistical forecast model for the Madden-Julian Oscillation. *NOAA's 32nd Annual Climate Diagnostics and Prediction Workshop, Tallahassee, Florida*, October 2007.
- Jiang, X., 2007: Examining data set sensitivity in their representation of tropical intraseasonal variability. *5th Latent Heat Workshop, Annapolis, Maryland*, August 2007.

- Jiang, X., 2006: Role of the Diurnal Cycle in the Summertime Dry-Warm Bias over the US Great Plains in the GFDL GCM. *Lawrence Livermore National Laboratory, Livermore, California*, April 2006.
- Jiang, X., 2006: Role of the Diurnal Cycle in the Summertime Dry-Warm Bias over the US Great Plains in the GFDL GCM. *Jet Propulsion Laboratory/NASA, Pasadena, California*, March 2006.
- Jiang, X., 2006: Role of the Diurnal Cycle in the Summertime Dry-Warm Bias over the US Great Plains in the GFDL GCM. *Geophysical Fluid Dynamics Laboratory/NOAA, Princeton, New Jersey*, February 2006.
- Jiang, X., 2005: AGCM simulated Great-Plains low-level jet and its mechanisms. *AGU Fall Meeting, San Francisco, CA*, December 2005.
- Jiang, X., T. Li and B. Wang, 2004: Structures and mechanisms of the northward propagating boreal summer intraseasonal oscillation. *Geophysical Fluid Dynamics Laboratory/NOAA, Princeton, New Jersey*, December 2004.
- Jiang, X. and T. Li, 2004: Reinitiating of the boreal summer intraseasonal oscillation in the tropical Indian Ocean, *Western Pacific Geophysics Meeting, Honolulu*, August 2004.
- Jiang, X., T. Li and B. Wang, 2004: Structures and mechanisms of the northward propagating boreal summer intraseasonal oscillation, *International Asian Monsoon Symposium, Honolulu*, February 2004.
- Li, T., and X. Jiang, 2004: Reinitiation of the boreal summer intraseasonal oscillation in the tropical Indian Ocean, *International Asian Monsoon Symposium, Honolulu*, February 2004.
- Jiang, X., 2003: On the reinitiation of the boreal summer intraseasonal oscillation over the tropical Indian Ocean, *Department of Meteorology, University of Hawaii*, April 2003.
- Li, T., X. Jiang and B. Wang, 2003: Structures and mechanisms of the northward-propagating boreal summer intraseasonal oscillation, *International conference on earth system modeling, Hamburg, Germany*, September 2003.
- Jiang, X., 2002: Structures and mechanisms of the northward propagating boreal summer intraseasonal oscillation, *Department of Meteorology, University of Hawaii*, October 2002.

Professional Affiliations

- American Geophysical Union
- American Meteorological Society

Professional Services

- Peer reviewer for journals: *Journal of Climate, Journal of the Atmospheric Sciences, Journal of Atmospheric and Oceanic Technology, International Journal of Climatology, Geophysical Research Letters, Advances in Atmospheric Sciences, Climate Dynamics, Quarterly Journal of the Royal Meteorological Society, Journal of Geophysical Research-Atmospheres.*
- Proposal reviewer for NSF.