

## CURRICULUM VITAE

Haiyan Jiang

Department of Earth & Environment, Florida International University

### Education

2004 Ph.D. Meteorology, University of Utah  
1995 M.S. Atmospheric Remote Sensing, Chinese Academy of Meteorological Sciences  
1992 B.S. Atmospheric Physics, Nanjing Institute of Meteorology, China

### Professional Experience

2020-present: Professor, Florida International University  
2014-2020: Associate Professor, Florida International University  
2010-2014: Assistant Professor, Florida International University  
2007-2009: Research Assistant Professor, University of Utah  
2004-2006: Research Associate, NASA Goddard Space Flight Center

### Honors and Awards

FIU CASE Communication Award	2018-2019
FIU Top Scholar Award	2014
FIU Summer Faculty Development Award	2011
NASA GRIP Group Achievement Award	2010
Travel Fellowship for University Corporation of Atmospheric Research Annual Board Meeting	2009
NASA New Investigator Award in Earth Science	2008-2011
Travel Award for the Workshop on Tropical Cyclone and Climate, NSF & Columbia University	2006
NASA Earth System Science Fellowship Award	2003-2004

### Professional Service and Activities

Associate Editor, <i>Monthly Weather Review</i>	2017-2022
Editorial Board, <i>Climate</i>	2012-2014
Member, NASA Global Hydrology Resource Center (GHRC) User Working Group	2016-2020
Member, World Meteorology Organization (WMO) 8 <sup>th</sup> & 9 <sup>th</sup> International Workshops on Tropical Cyclones (IWTC-8 & 9) Working Group for Topic 2.6 Intensity Change: Internal Influences	2014, 2018
Member, WMO 3 <sup>rd</sup> and 4 <sup>th</sup> International Workshops on Tropical Cyclone Landfall Processes (IWTCLP-III & IV) Working Group for Focus Area TC Rainfall	2014, 2017
Panel Review Committees for NASA	2009, 2011, 2012, 2013, 2018, 2021
Panel Review Committees for NSF	2019
Proposal reviews for NASA & NSF	2009-present

### Selected Peer-Reviewed Articles (\*\*M.S. Student, †Ph.D. Student, ††Postdoc)

†Guzman, O. and H. Jiang, 2023: Climatology of Tropical Cyclone Rainfall Magnitude at Different Landfalling Stages: An Emphasis on After Landfall Rain. *J. Appl. Meteor. Climatol.*, **62**, 801–815, <https://doi.org/10.1175/JAMC-D-22-0055.1>.

†Guzman, O. and H. Jiang, 2021: Global Increase in Tropical Cyclone Rain Rate. *Nat. Commun.* **12**, 5344 (2021). <https://doi.org/10.1038/s41467-021-25685-2>

†Guzman, O. and H. Jiang, 2021: Heavier Inner-core Rainfall of Major Hurricanes in the North Atlantic Basin than Other Global Basins. *J. Climate*. **34**, 5707–5721. <https://doi.org/10.1175/JCLI-D-20-0668.1>

††Wang, X., H. Jiang, X. Li, and J. A. Zhang, 2021: Observed shear-relative rainfall asymmetries associated with landfalling tropical cyclones. *Advances in Meteorology*. Volume **2021**, Article ID 4676713, 11 pages. <https://doi.org/10.1155/2021/4676713>.

†Wang, X. and H. Jiang, 2021: Contrasting behaviors between the rapidly intensifying and slowly intensifying tropical cyclones in the North Atlantic and Eastern Pacific basins. *J. Climate*, **34**, 987–1003. <https://doi.org/10.1175/JCLI-D-19-0908.1>

††Wang, X., H. Jiang, J. A. Zhang, and K. Peng 2020: Satellite-observed warm-core structure in relation to tropical cyclone intensity change. *Atmospheric Research*, **240(2020)**, 104931. <https://doi.org/10.1016/j.atmosres.2020.104931>

††Qian, B., H. Jiang, F. Weng, and Y. Wu, 2020: Climatology of Passive Microwave Brightness Temperatures in Tropical Cyclones and their Relations to Storm Intensities as seen by FY-3B/MWRI. *Remote Sensing*, **12(1)**, 147; <https://doi.org/10.3390/rs12010147>.

††Wang, X. and H. Jiang, 2019: A 13-Year Global Climatology of Tropical-Cyclone Warm-Core Structures from AIRS Data. *Mon. Wea. Rev.*, **147**, 773–790.

Jiang, H., ††C. Tao, and ††Y. Pei, 2019: Estimation of Tropical Cyclone Intensity in the North Atlantic and Northeastern Pacific Basins Using TRMM Satellite Passive Microwave Observations. *J. Appl. Meteor. Climatol.*, **58**, 185–197.

†Pei, Y. and H. Jiang, 2018: Quantification of Precipitation Asymmetries of Tropical Cyclones Using 16-yr TRMM Observations. *J. Geophys. Res.*, **123**, 8091–8114.

- Jiang, H.**, \*\*J. P. Zagrodnik, †C. Tao, and E. J. Zipser, 2018: Classifying precipitation types in tropical cyclones using the NRL 37 GHz color product. *J. Geophys. Res.*, **123**, 5509–5524.
- Cheung, K., Z. Yu, R. L. Elsberry, M. Bell, **H. Jiang**, T. C. Lee, K.-C. Lu, Y. Oikawa, L. Qi, R. F. Rogers, K. Tsuboki, 2018: Recent Advances in Research and Forecasting of Tropical Cyclone Rainfall. *Tropical Cyclone Research and Review*, **7(2)**, 106–127.
- Yang, Z., T. Yuan, **H. Jiang**, L. Zhang, and C. Zhang, 2018: Stratiform and Convective Precipitation Properties of Tropical Cyclones in the Northwest Pacific. *J. Geophys. Res.*, **123**, 3513–3529.
- †Klotz, B. W., and **H. Jiang**, 2017: Examination of Surface Wind Asymmetries in Tropical Cyclones: Part I. General Structure and Wind Shear Impacts. *Mon. Wea. Rev.*, **145**, 3989–4009.
- †Tao, C., **H. Jiang**, and ††J. Zawislak 2017: The Relative Importance of Stratiform and Convective Rainfall in Rapidly Intensifying Tropical Cyclones. *Mon. Wea. Rev.*, **145**, 795–809.
- †Klotz, B. W., and **H. Jiang**, 2016: Global Composites of Surface Wind Speeds in Tropical Cyclones based on a 12-year Scatterometer Database. *Geophys. Res. Lett.*, **43**, 1–9. doi:10.1002/2016GL071066.
- Rogers, R. F., J. Zhang, ††Zawislak, J., **H. Jiang**, G. R. Alvey III, E. J. Zipser, and S. Stevenson, 2016: Observations of the structure and evolution of Hurricane Edouard (2014) during intensity change. Part II: Kinematic structure and the distribution of deep convection. *Mon. Wea. Rev.*, **144**, 3355–3376.
- ††Zawislak, J., **H. Jiang**, G. R. Alvey III, E. J. Zipser, R. F. Rogers, J. Zhang, and S. Stevenson, 2016: Observations of the structure and evolution of Hurricane Edouard (2014) during intensity change. Part I: Relationship between the thermodynamic structure and precipitation. *Mon. Wea. Rev.*, **144**, 3333–3354.
- †Tao, C. and **H. Jiang**, 2015: Distributions of shallow to very deep precipitation–convection in rapidly intensifying tropical cyclones. *J. Climate*, **28**, 8791–8824.
- \*\*Zagrodnik, J., and **H. Jiang**, 2014: Rainfall, Convection, and Latent Heating Distributions in Rapidly Intensifying Tropical Cyclones. *J. Atmos. Sci.*, **71**, 2789–2809.
- Jiang, H.** and †C. Tao, 2014: Contribution of tropical cyclones to global very deep convection. *J. Climate*, **27**, 4313–4336.
- Xu, W., **H. Jiang**, and X. Kang, 2014: Rainfall Asymmetries of Tropical Cyclones Prior to, During, and After Making Landfall in South China and Southeast United States. *Atmospheric Research*, **139**, 18–26.
- \*\*Zagrodnik, J., and **H. Jiang**, 2013: Investigation of PR and TMI Version 6 and Version 7 Rainfall Algorithms in Landfalling Tropical Cyclones Relative to the NEXRAD Stage-IV Multi-sensor Precipitation Estimate Dataset. *J. Appl. Meteor. Climatol.*, **52**, 2809–282.
- Jiang, H.**, and \*\*E. M. Ramirez, 2013: Necessary conditions for tropical cyclone rapid intensification as derived from 11 years of TRMM data. *J. Climate.*, **26**, 6459–6470.
- †Tao, C., and **H. Jiang**, 2013: Global distribution of hot towers in tropical cyclones based on 11-year TRMM data. *J. Climate*, **26**, 1371–1386.
- \*\*Zagrodnik, J., and **H. Jiang**, 2013: Comparison of TRMM precipitation radar and microwave imager rainfall retrievals in tropical cyclone inner cores and rainbands. *J. Geophys. Res.*, **118**, 29–42. DOI: 10.1029/2012JD017919.
- Jiang, H.**, \*\*E. M. Ramirez, and D. J. Cecil, 2013: Convective and rainfall properties of tropical cyclone inner cores and rainbands from 11 years of TRMM data. *Mon. Wea. Rev.*, **141**, 431–450.
- †Kieper, M., and **H. Jiang**, 2012: Predicting tropical cyclone rapid intensification using the 37 GHz ring pattern identified from passive microwave measurements. *Geophys. Res. Lett.*, **39**, L13804, doi:10.1029/2012GL052115.
- Jiang, H.**, 2012: The relationship between tropical cyclone intensity change and the strength of inner-core convection. *Mon. Wea. Rev.*, **140**, 1164–1176.
- Jiang, H.**, C. Liu, and E. J. Zipser, 2011: A TRMM-based Tropical Cyclone Cloud and Precipitation Feature Database. *J. Appl. Meteor. Climatol.*, **50**, 1255–1274.
- Xu, W., E. J. Zipser, C. Liu, and **H. Jiang**, 2010: On the relationships between lightning frequency and thundercloud parameters of regional precipitation systems. *J. Geophys. Res.*, **115**, D12203, doi:10.1029/2009JD013385.
- Jiang, H.**, and E. J. Zipser, 2010: Contribution of tropical cyclones to the global precipitation from eight seasons of TRMM data: Regional, seasonal, and interannual variations. *J. Climate.*, **23**, 1526–1543.
- Jiang, H.**, J. B. Halverson, and E. J. Zipser, 2008: Influence of environmental moisture on TRMM-derived tropical cyclone precipitation over land and ocean. *Geophys. Res. Lett.*, **35**, L17806, doi:10.1029/2008GL034658.
- Jiang, H.**, J. B. Halverson, J. Simpson, and E. J. Zipser, 2008: Hurricane “rainfall potential” derived from satellite observations aids overland rainfall prediction. *J. Appl. Meteor. Climatol.*, **47**, 944–959.
- Jiang, H.**, J. B. Halverson, J. Simpson, and E. J. Zipser, 2008: On the differences in storm rainfall from Hurricanes Isidore and Lili. Part II: Water budget. *Wea. Forecasting*, **23**, 44–61.
- Jiang, H.**, J. B. Halverson, and J. Simpson, 2008: On the differences in storm rainfall from Hurricanes Isidore and Lili. Part I: Satellite observations and rain potential. *Wea. Forecasting*, **23**, 29–43.
- Jiang, H.**, and E. J. Zipser, 2006: Retrieval of hydrometeor profiles in tropical cyclones and convection from combined radar and radiometer observations. *J. Appl. Meteor. Climatol.*, **45**, 1096–1115.
- Jiang, H.**, P. G. Black, E. J. Zipser, F. D. Marks, and E. W. Uhlhorn, 2006: Validation of rain-rate estimation in hurricanes from the Stepped Frequency Microwave Radiometer: algorithm correction and error analysis. *J. Atmos. Sci.*, **63**, 252–267.
- Jiang, H.**, R. Ge, and X. Zhu, 2001: Preliminary analysis on the flow structure of heavy precipitation on June 9 in Changle area during HUAMEX. *Quarterly Journal of Applied Meteorology*, **12(1)**, 97–101.