

XUEJIN ZHANG

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Education

- B.S. Climatology, Nanjing Institute of Meteorology, July 1991
M.S. Synoptic Dynamics, Chinese Academy of Meteorological Sciences and Nanjing Institute of Meteorology, September 1996
Ph.D. Atmospheric Science, North Carolina State University, May 2007

Professional Experience

- 1991-1995 Assistant Engineer, Climate Analysis and Diagnosis, Climate Center of Liaoning Province, Liaoning, China
1996-2001 Engineer, Climate and Weather Analysis and Prediction, Weather Center of Liaoning Province, Liaoning, China
1996-1999 Visiting Scholar, Meteorological Field Experiment and Data Quality Control Chinese Academy of Meteorological Sciences, Beijing, China
2000-2001 Visiting Scholar, Regional Climate Model Development, North Carolina State University, Raleigh, NC
02/2007-02/2008 Post Doctoral Research Associate, Mesoscale Model Development, North Carolina State University, Raleigh, NC
03/2008-05/2012 Assistant Scientist, RSMAS/CIMAS, University of Miami, Miami, FL
06/2012-present Associate Scientist, RSMAS/CIMAS, University of Miami, Miami, FL

Honors & Awards

- NOAA Employee of the Year, 2012, HRD modeling group
NOAA Team Member of the Month, May 2013

Publications

Refereed Journals

1. Rogers, R., Sim Aberson, Altug Aksoy, Bachir Annane, Michael Black, Joseph Cione, Neal Dorst, Jason Dunion, John Gamache, Stan Goldenberg, Sundararaman Gopalakrishnan, John Kaplan, Bradley Klotz, Sylvie Lorsolo, Frank Marks, Shirley Murillo, Mark Powell, Paul Reasor, Kathryn Sellwood, Eric Uhlhorn, Tomislava Vukicevic, Kevin Yeh, Jun Zhang, and **Xuejin Zhang**, 2013: NOAA's Hurricane Intensity Forecasting Experiment (IFEX): A Progress Report. *Bull. Amer. Meteor. Soc.*, **94**, 859-882.
2. Aksoy, A., S. D. Aberson, T. Vukicevic, K. J. Sellwood, S. Lorsolo, **Xuejin Zhang**, 2013: Towards improving high-resolution numerical hurricane forecasting: Influence of model horizontal grid resolution, initialization, and physics. *Mon. Wea. Rev.*, **141**, 1842-1865.

3. Xu, H., **Xuejin Zhang**, X. Xu, 2013: Impact of Tropical Storm Bopha on the Intensity Change of Super Typhoon Saomai in the 2006 Typhoon Season. *Adv. in Meteorology*, Vol. 2013, <http://dx.doi.org/10.1155/2013/487010>.
4. Gopalakrishnan, S. G., Frank Marks, Jr., J A. Zhang, **Xuejin Zhang**, J.-W. Bao, and V. Tallapragada. 2013: A Study of the Impacts of Vertical Diffusion on the Structure and Intensity of the Tropical Cyclones Using the High Resolution HWRF system. *J. Atmos. Sci.*, **70**, 524–541. doi: <http://dx.doi.org/10.1175/JAS-D-11-0340.1>.
5. Gopalakrishnan, S.G., S. Goldenberg, T. Quirino, F. Marks, **Xuejin Zhang**, K.-S. Yeh, R. Atlas, and V. Tallapragada, 2012: Towards improving high-resolution numerical hurricane forecasting: Influence of model horizontal grid resolution, initialization, and physics. *Weather and Forecasting*, **27**, 647-666.
6. Laureano-Bozeman, M., D. Niyogi, S. Gopalakrishnan, F.D. Marks, **Xuejin Zhang**, and V. Tallapragada. 2012: An HWRF-based ensemble assessment of the land surface feedback on the post-landfall intensification of Tropical Storm Fay (2008). *Natural Hazards*, **63**, 1543-1571.
7. Yeh, K.-S., **Xuejin Zhang**, S. G. Gopalakrishnan, S. Aberson, R. Rogers, F. D. Marks, and R. Atlas, 2012: Performance of the experimental HWRF in the 2008 hurricane season. *Natural Hazards* **63**, 1439-1449.
8. **Zhang, Xuejin**, T. S. Quirino, K.-S. Yeh, S. G. Gopalakrishnan, F. D. Marks, Jr., S. B. Goldenberg, and S. Aberson, 2011: HWRFx: Improving Hurricane Forecast with High-Resolution Modeling. *Computing in Science and Engineering*, **13**, 13-21.
9. Gopalakrishnan, S. G., F. D. Marks, **Xuejin Zhang**, J.-W. Bao, K.-S. Yeh, and R. Atlas, 2011: The Experimental HWRF System: A Study on the Influence of Horizontal Resolution on the Structure and Intensity Changes in Tropical Cyclones using an Idealized Framework. *Mon. Wea. Rev.*, **139**, 1762-1784.
10. Xu, Xiangde, Qiuju Miao, Jizhi Wang, and **Xuejin Zhang**, 2003: The Water Vapor Transport Model at the Regional Boundary during the Meiyu Period. *Advances In Atmospheric Sciences*, **20**, 333-342 (in English).
11. Miao, Qiuju, Xiangde Xu, Wenqing Yao, **Xuejin Zhang**, 2002: A dynamic mode for relationship between flood/drought in Yangtze River Valley and low frequency wave originated from tropical sea area. *ACTA Meteorologica Sinica*, **16**, 272-281 (in English).
12. Yao, Wenqing, Xiangde Xu, and **Xuejin Zhang**, 2003: Water Vapor Features in the Heavy Monsoon Precipitation Processes of 1998 over the Yangtze Basin, *Journal of Nanjing Institute of Meteorology*, **26**, 496-503 (in Chinese).
13. Bai, Jingyu, Xiangde Xu, Yushu Zhou, and **Xuejin Zhang**, 2003: Preliminary Research on Inhomogeneous Distribution of Tibetan Plateau Sensible Heat Fluxes in Spring, *Journal of Applied Meteorological Science*, **14**, 363-368 (in Chinese)
14. Miao, Qiuju, Xiangde Xu, and **Xuejin Zhang**, 2002: Characteristics of teleconnection wave train for circulation pattern of flood/drought in the middle and lower reaches of Yangtze River and sea surface temperature over equatorial East Pacific, *ACTA Meteorologica Sinica*, **60**, 688-697 (in Chinese).
15. Zhang, Guangzhi, Xiangde Xu, Fei Mao, and **Xuejin Zhang**, 2001: A New Approach of Irrigation Management For Winter Wheat by the Climatic-Agrometeorological Model Consensus System. *Quarterly Journal of Applied Meteorology*. **12**, 307-316 (in Chinese).

Government and Technical Reports

1. Gopalakrishnan, S. G., Q. Liu, T. Marchok, D. Sheinin, N. Surgi, R. Tuleya, R. Yablonsky, **Xuejin Zhang** (in alphabetical order by last name), Editor: L. Bernardet, 2010: Hurricane Weather Research and Forecasting Model Scientific Documentation, *Developmental Testbed Center Report*, pp 80.
2. Gopalakrishnan, S. G., Q. Liu, T. Marchok, D. Sheinin, N. Surgi, V. Tallapragada, M. Tong, R. Tuleya, R. Yablonsky, **Xuejin Zhang** (in alphabetical order by last name), Editor: L. Bernardet, 2011: Hurricane Weather Research and Forecasting (HWRF) Model: 2011 Scientific Documentation, *Developmental Testbed Center Report*, pp 81.
3. Gopalakrishnan, S. G., Q. Liu, T. Marchok, D. Sheinin, V. Tallapragada, M. Tong, R. Tuleya, R. Yablonsky, **Xuejin Zhang** (in alphabetical order by last name), Editor: L. Bernardet, 2012: Hurricane Weather Research and Forecasting (HWRF) Model: 2012 Scientific Documentation, *Developmental Testbed Center Report*, pp 96.
4. NOAA Hurricane Forecast Improvement Project, 2009: High-Resolution Hurricane Forecast Test: Final Report, *Developmental Testbed Center Report*. pp 95.
5. Gall, R., F. Toepfer, S. Aberson, J. W. Bao, M. Bender, S. Benjamin, L. Bernardet, M. Biswas, B. Brown, C. Davis, M. DeMaria, J. Doyle, M. Fiorino, J. Franklin, I. Ginis, J. Goerss, S. Gopalakrishnan, T. Hamill, H.S. Kim, T. Krishnamurti, P. Kucera, Y. Kwon, W. Lapenta, S. Lord, T. Marchok, F. Marks, E. Rappaport, C. Reynolds, N. Surgi, V. Tallapragada, H. Tolman, G. Vandenberghe, Y. Weng, J. Whittaker, F. Zhang, **Xuejin Zhang**, M. Zupanski, 2012: 2011 HFIP R & D Activities Summary: Accomplishments, Lessons Learned, and Challenges, *HFIP Project Office Report*. pp 51.
6. Xu, Xiangde, **Xuejin Zhang**, Mingyu Zhou and Jingyu Bai, 2000: The dynamic characteristics of the effect of the Tibetan Plateau thermal anomaly on the drought and flood in the Yangtze-Huaihe River basin. In *The Theoretical Advances of the Second Tibetan Plateau Field Experiment*, Vol. 3, pp. 1-15, China Meteorological Press, Beijing, China (in Chinese).
7. Xu, Xiangde, **Xuejin Zhang**, and Lianshou Chen, 1999: The Dynamics of the low-frequency wave over the Tibetan Plateau. In *The Theoretical Advances of the Second Tibetan Plateau Field Experiment*, Vol. 1, pp. 162-168, China Meteorological Press, Beijing, China (in Chinese).
8. Xu, Xiangde, **Xuejin Zhang**, and Wenqing Yao, 1999: The characteristics of the “water vapor stream” in boundaries of the Meiyu region and its influence on the torrential rain in the Yangtze River Basin. In *The Energy and Water Cycle Experiment in Huaihe River Basin*, Vol. 1, 12-19, China Meteorological Press, Beijing, China (in Chinese).

Current and Past Supports for Xuejin Zhang

Project Name: Development of Multiple Moving Nests Within a Basin-Wide HWRF Modeling (PI)

Agency: NOAA

Award Period: 01/01/2012-12/31/2014

Project Name: Services to Support the Hurricane Forecast Improvement Project System (PI)

Agency: NOAA

Award Period: 10/01/2013-09/30/2015

Project Name: CIMAS Contributions to OAR Recovery Act Projects (PI)

Agency: NOAA

Award Period: 2/01/2014-09/30/2016