

Reviewer of Articles for the Following Journals:

Weather Analysis and Forecasting
Monthly Weather Review

Honors and Awards

- 2006 First Award of Science and Technology Progress of Hubei Province
- 2005 Excellent Graduate Student Scholarship, Texas A&M University
- 2004 Excellent Graduate Student Scholarship, Texas A&M University
- 1996 First Award of Science and Technology Progress of China Meteorological Administration
- 1994 Excellent Graduate Student Award, Chinese Academy of Meteorological Sciences

Journal Publications

Manuscripts in Preparation

1. Gao, S., Z. Meng, and F. Zhang, 2007: A study on rainfall of Typhoon Bilis (2006), Part I: Observational analyses.
2. Meng, Z., S. Gao and F. Zhang, 2007: A study on rainfall of Typhoon Bilis (2006), Part II: Numerical Simulation.
3. Zhang, F., Y. Weng, Z. Meng, and Y. Chen, 2007: Ensemble-based data assimilation and prediction for Hurricanes: Impacts of assimilating Doppler radar observations.

Journal Articles

15. Meng, Z, and F. Zhang, 2007: Test of an ensemble-Kalman filter for mesoscale and regional-scale data assimilation. Part IV: Comparison with 3DVar in a Month-long Experiment, *Monthly Weather Review*, in review (conditionally accepted).
14. Meng, Z., and F. Zhang, 2007b: Tests of an ensemble Kalman filter for mesoscale and regional-scale data assimilation, Part III: Comparison with 3DVar in a real-data Case study. *Monthly Weather Review*. in press.
13. Meng, Z., and F. Zhang, 2007a: Tests of an ensemble Kalman filter for mesoscale and regional-scale data assimilation, Part II: Imperfect model experiments. *Monthly Weather Review*. **135**, 1403-1423.
12. Hawblitzel, D., F. Zhang, Z. Meng and C. A. Davis, 2007: Probabilistic evaluation of the dynamics and predictability of mesoscale convective vortex event of 10-13 June 2003. *Monthly Weather Review*,

135, 1544-1563.

11. Zhang, F., **Z. Meng** and A. Aksoy, 2006: Test of an ensemble-Kalman filter for mesoscale and regional scale data assimilation. Part I: Perfect-model experiments. *Monthly Weather Review*, **134**, 722-736.

10. Zhang Shengjun, Xu Xiangde, Wu Qingmei, and **Meng Zhiyong**, 2004: Four dimensional data assimilation of wind profiler observations obtained from “China Landfalling Typhoon Experiment”, *Quarterly Journal of Applied Meteorology*, Vol. **15**, B12, 101-109.

9. Xu Xiangde, Weng Yonghui, **Meng Zhiyong**, Zhou Mingyu, 2002: A study on the mesoscale convection in a torrential rain event in Wuhan-Huangshi in July 1998, *Chinese J. Atmos. Sci.*, Vol.**26**, No.6, 845-856.

8. **Meng Zhiyong**, Xu Xiangde, Chen Lianshou, 2002: Meso-scale characteristics of the interaction between TC Tim (9406) and mid-latitude circulation, *Acta Meteorologica Sinica*, Vol.**60**, No.1,31-39.

7. **Meng Zhiyong**, Chen Lianshou, Xu Xiangde, 2002: Recent progress on tropical cyclone research in China, *Advances in Atmospheric Sciences*, Vol.**19**, No.1,103-110.

6. **Meng Zhiyong**, Xu Xiangde, Chen Lianshou, 2002: T_{BB}-nudging four dimensional data assimilation method and simulation experiment on “7.20” heavy rain process in Wuhan in 1998, *Chinese J. Atmos. Sci.*, Vol.**26**, No.5, 663-676.

5. **Meng Zhiyong**, Xu Xiangde, Chen Lianshou, 2001: A kind of tangential wind profile for strong tropical cyclone and its contribution to abnormal tropical cyclone track simulation, *Chinese J. Atmos. Sci.*, Vol.**25**, No.2,193-199.

4. Chen Lianshou, **Meng Zhiyong**, 2001: An overview on tropical cyclone research progress in China during the past ten years, *Chinese J. Atmos. Sci.*, Vol.**25**, No.3, 420-432.

3. **Meng Zhiyong**, Xu Xiangde, Chen Lianshou, 1998: Mechanism of the impact of induced cyclone system around Taiwan island topography on tropical cyclone unusual motion, *Chinese J. Atmos. Sci.*, Vol. **22**, No.1,79-92.

2. **Meng Zhiyong**, Nagata Masashi, Chen Lianshou, 1996: A numerical study on the formation and development of island-induced cyclone and its impact on typhoon structure change and motion, *Acta Meteorologica Sinica*, Vol. **10**, No.4, 430-443.

1. Chen Lianshou, **Meng Zhiyong**, Xu Xiangde,1996: A numerical experiment on the impact of Taiwan island terrain on typhoon Yancy (9012), *Studies on the typhoon dynamic theory and operational field*

experiment, Meteorological press, Vol.2, 146-152.

Invited Presentations

6. Tests on mesoscale ensemble-based data assimilation in the presence of model error, Chinese Academy of Meteorological Sciences, Beijing, China, Feb. 2006
5. Ensemble Kalman filter and its applications in mesoscale data assimilation, Beijing University, Beijing, China, Aug. 2005.
4. Performance of an ensemble based meso-scale data assimilation system with synthetic observations, Chinese Academy of Meteorological Sciences, Beijing, China, Jan. 2005.
3. Mesoscale characteristics of the interaction between tropical cyclone and mid-latitude circulation, Tropical Meteorological Institute of Guangdong, June, 1999.
2. A numerical study on the formation and development of island-induced cyclone and its impact on typhoon structure change and motion, Japan Meteorological Agency, March, 1995.
1. Impact of Taiwan Island topography on typhoon motion, Meteorological Research Institute, Tskuba, Japan, Feb, 1995

Conference Papers/Presentations

27. Fuqing Zhang, Y. Weng, **Z. Meng**, and Y. Chen, 2007: Ensemble-based data assimilation and prediction for Hurricanes: Impacts of assimilating Doppler radar observations. *18th conference on numerical weather prediction*, Park City, Utah, June 2007.
26. **Meng, Z.** and F. Zhang, 2007: Comparing EnKF with 3DVar for regional-scale data assimilation. *18th conference on numerical weather prediction*, Park City, Utah, June 2007.
25. **Meng, Z.** and F. Zhang, 2006: Comparing WRF-based EnKF with 3DVar for an MCV Event during BAMEX. *7th WRF Users' Workshop*, Boulder, Colorado, 19 - 22 June 2006.
24. **Meng, Z.** and F. Zhang, 2006: Real-Data Assimilation with a WRF-based Ensemble Kalman Filter. *2nd workshop on ensemble-based data assimilation*. Maple falls, Texas, April 2006.
23. **Meng, Z.**, and F. Zhang, 2005: Impacts of model error on ensemble-based regional-scale data assimilation. *9th IAMAS Assembly—Data Assimilation*, Beijing, China, August 2005.
22. **Meng Z.**, and F. Zhang, 2005: Impacts of model error and ensemble initialization on

ensemble-based regional-scale data assimilation. *21st AMS Conference on Weather Analysis and Forecasting/17th Conference on Numerical Weather Prediction*, Washington, D. C., August 2005.

21. Zhang, F., **Z. Meng** and A. Aksoy, 2004: Mesoscale ensemble-based data assimilation. *NCAR Informal Workshop on Ensemble-based Data Assimilation*, Boulder, Colorado, October 2004.

20. Zhang F., D. Hawblitzel, **Z. Meng**, and C. A. Davis, 2004: Assimilation of BAMEX Observations with an Ensemble Kalman Filter. *22nd AMS Conference on Severe and Local Storms*, Hyannis, Massachusetts, October 2004.

19. Hawblitzel D., F. Zhang, **Z. Meng**, and C. A. Davis, 2004: Dynamics and predictability of MCVs estimated through high-resolution deterministic and probabilistic (ensemble) forecasts. *22nd AMS Conference on Severe and Local Storms*, Hyannis, Massachusetts, October 2004.

18. Zhang, F., **Z. Meng** and A. Aksoy, 2004: Test of an ensemble-Kalman filter for regional-scale data assimilation. *3rd International Ocean-Atmosphere Conference*, Beijing, China, June 2004.

17. **Meng, Z.** and F. Zhang, 2004: Impacts of model error and ensemble initiation for mesoscale data assimilation with an ensemble-Kalman filter for regional scale. *1st joint WRF/MM5 Workshop*, Boulder, Colorado, June 2004.

16. Zhang, F., **Z. Meng** and A. Aksoy, 2004: Test of an ensemble-Kalman filter for regional-scale data assimilation. *Symposium on 50th Anniversary of Operational Numerical Weather Prediction*, College Park, Maryland, June 2004.

15 **Meng Zhiyong**, 2003: A heavy rain numerical prediction system combing AREM model and 3DVar data assimilation, *Annual Academic Meeting of Chinese Academy of Meteorological Sciences*, Beijing, China, Jan. 2003.

14. **Meng Zhiyong**, 2003: Application of 3DVar analysis data in a numerical study of land-falling Typhoon HuangFeng, *The 13th national workshop on Tropical Cyclone*, GuangDong, China, April 2003.

13. **MengZhiyong**, 2002: Asymmetric Typhoon bogussing based on TBB data and Its impact on track simulation of Typhoon 9806, *12th National Workshop on Tropical Cyclone*, Zhejiang, China, April 2002.

12. **Meng Zhiyong**, 2002: The Performance of 4DVAR/MM5 System in the Simulation of Heavy Rain in Yangtze River Valley, *1st China-Japan workshop on heavy rainfall experiment and study*, Haikou, China, April 2002.

11. Chen Lianshou, Luo Zhexian, **Meng Zhiyong**, 2001: The impact of scale interaction and topography on tropical cyclone motion, *Tropical Meteorological Workshop*, Guangdong, China, December 2001.
10. **Meng Zhiyong**, 2000: A kind of tangential wind profile for strong tropical cyclone and its contribution to abnormal tropical cyclone track prediction, *24th conference on Hurricanes and Tropical Meteorology*, Fort lauderdale, Florida, USA, 29 May-2June, 2000.
9. Chen Lianshou, **Meng Zhiyong**, 1999: Tropical cyclone disasters in China, *23rd conference on Hurricanes and Tropical Meteorology*, Dallas, Texas, USA, Jan.1999.
8. Xu Xiangde, **Meng Zhiyong**, 1999: External forcing effect on continuous severe heavy rain in Yangtze River basin in 1998, *The Workshop on Meso-Scale Systems in Meiyu/Baiu Front and Hydrological Cycle*, Xi An, China, November 1999.
7. Chen Lianshou, Xu Xiangde, Zhu Yongti, **Meng Zhiyong**, 1999: An overview on the advances of tropical cyclone research and forecasting, *1995-1998 China National Report on Meteorology and Atmospheric Sciences for the XXIIInd General Assembly of IUGG*, ,Birmingham, UK, July 1999.
6. **Meng Zhiyong**, 1999: A kind of tangential wind profile for strong tropical cyclone and its contribution to abnormal tropical cyclone track prediction, *11th session of National Workshop on Tropical Cyclones*, Suzhou, Jiangsu, China, December 1999.
5. **Meng Zhiyong**, Xu Xiangde, Chen Lianshou, 1999: Mesoscale characteristics of the interaction between tropical cyclone and mid-latitude circulation, *11th session of National Workshop on Tropical Cyclones*, Suzhou, Jiangsu, China, December 1999.
4. **Meng Zhiyong**, 1998: Summary report on tropical cyclone disaster preparedness and mitigation, *4th WMO International Workshop on Tropical Cyclones(IWTC-IV)*, Hainan, China, April 1998.
3. Chen Lianshou, **Meng Zhiyong**, 1997: Typhoon forecasting techniques and disaster reduction measures, *The U.S./CHINA Workshop on Natural Disaster Mitigation and Reduction*, Beijing China, November 1997.
2. **Meng Zhiyong**, 1994: Numerical experiment concerning the topographical effect on tropical cyclone motion, *9th session of National Workshop on Tropical Cyclones*, Nanjing, China, June 1994.
1. **Meng Zhiyong**, 1993: Impact of Taiwan island topography on typhoon motion, *3rd Technical Conference on SPECTRUM*, Shanghai, China, October 1993.