

Curriculum vitae

Munehiko Yamaguchi

Division of Meteorology and Physical Oceanography
Rosenstiel School of Marine and Atmospheric Science
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Date of Birth

August 3, 1978

Nationality

Japanese

Educational Background

B.A. in Meteorology, Meteorology College, 2002

Professional Experience

2008.08 – present

Research Assistant, Division of Meteorology and Physical Oceanography, Rosenstiel School of Marine and Atmospheric Science, University of Miami

2002.04 – 2008.07

Scientist, Global and Typhoon modeling team, Numerical Prediction Division, Japan Meteorological Agency (JMA)

- Development of the operational Typhoon Ensemble Prediction System
- Development of a sensitivity analysis technique using a singular vector method
- Contributions to THORPEX and T-PARC related activities
- Contributions to WGNE intercomparison project on tropical cyclone forecasts

Teaching Experience

27 November, 2007

Typhoon Ensemble Prediction System at JMA, Hong Kong Observatory training course (Tokyo, Japan)

24-28 September, 2007

Ensemble Prediction Systems, WMO Public Weather Services Expert Meeting on the Applications of Probabilistic Forecasts (Shanghai, China)

Computer Skills

FORTRAN, UNIX, Parallel computing, MPI, HTML, Javascript

Research Interests

Tropical cyclone predictability, Ensemble prediction system, Adaptive observations

Publications

- ◆ **Yamaguchi, M.**, and S. J. Majumdar, 2009: Using TIGGE data to diagnose initial perturbations and their growth for tropical cyclone ensemble forecasts, *Mon. Wea. Rev.* (submitted)
- ◆ **Yamaguchi, M.**, T. Iriguchi, T. Nakazawa, and C.-C. Wu, 2009: An observing system experiment for Typhoon Conson (2004) using a singular vector method and DOTSTAR data, *Mon. Wea. Rev.* **137**, 2801-2816.
- ◆ **Yamaguchi, M.**, R. Sakai, M. Kyoda, T. Komori, and T. Kadowaki, 2009: Typhoon Ensemble Prediction System developed at the Japan Meteorological Agency, *Mon. Wea. Rev.*, **137**, 2592-2604.
- ◆ Wu, C.-C., J.-H. Chen, S. Majumdar, M. Peng, C. Reynolds, S. Aberson, R. Buizza, **M. Yamaguchi**, S.-G. Chen, T. Nakazawa, and K.-H. Chou, 2009: Inter-comparison of Targeted Observation Guidances for Tropical Cyclones in the Western North Pacific, *Mon. Wea. Rev.* **137**, 2471-2492.
- ◆ **Yamaguchi, M.**, and T. Komori, 2009: Outline of the Typhoon Ensemble Prediction System at the Japan Meteorological Agency, *RSMC Tokyo – Typhoon Center Technical Review*, **11**, 14-24.
- ◆ Saito, K., H. Seko, M. Kunii, T. Hara, M. Kyoda, and **M. Yamaguchi**, 2007: Preliminary Mesoscale Ensemble Prediction experiment for WWRP Beijing 2008 RDP, *CAS/JSC WGNE Research Activity Atmospheric and Oceanic Modelling*, **37**, 5.25-5.25.
- ◆ Komori, T., **M. Yamaguchi**, R. Sakai, and Y. Takeuchi, 2007: WGNE Intercomparison of Tropical Cyclone Forecasts with Operational Global Models: Quindecennial Report. Science Highlights, WCRP. 4pp.
- ◆ **Yamaguchi, M.**, 2006: Typhoon ensemble forecast using a singular vector method, *KAIYO MONTHLY*, **38**, 726-731.
- ◆ Saito, K, M. Kyoda, and **M. Yamaguchi**, 2006: Mesoscale Ensemble Prediction Experiment of a Heavy Rain Event with the JMA Mesoscale Model, *CAS/JSC WGNE Research Activity Atmospheric and Oceanic Modelling*, **36**, 5.49-5.50.
- ◆ Sakai, R., and **M. Yamaguchi**, 2005: The WGNE Intercomparison of Tropical Cyclone Track Forecasts by Operational Global Models, *CAS/JSC WGNE Research Activity Atmospheric and Oceanic Modelling*, **35**, 2.7-2.8.

Selected Presentations

4 March, 2009

Numerical model framework for typhoon prediction at the Japan Meteorological Agency. The 63th Interdepartmental Hurricane Conference, St. Petersburg, USA.

7 April, 2008

Strategy for the deployment of dropwindsonde observations using sensitivity analysis guidance. T-PARC operations meeting, Tsukuba, Japan.

4 December, 2007

Challenges and lessons learned from the 2007 Dry Run in Japan, Planning Workshop for the THORPEX Pacific Asian Regional Campaign, Hawaii, USA.

25 July, 2007

Typhoon Ensemble Prediction and Typhoon Sensitivity Analysis for T-PRAC, 5th Asian THORPEX Regional Committee Meeting, Tsukuba, Japan.

11 June, 2007

T-PARC related activity at the Japan Meteorological Agency, International Symposium on Global Change, Asian Monsoon and Extreme Weather and Climate, Taipei, Taiwan.

11 October, 2006

Observing System Experiments using a singular vector method for 2004 DOTSTAR cases, Korea-Japan-China Second Joint Conference on Meteorology, Seoul, Korea.