

Corey Guastini (Support Scientist, IMSG)

SUMMARY

- M.S. in Atmospheric Sciences and experience running and conducting evaluation of National Centers for Environmental Prediction (NCEP) numerical weather prediction (NWP) models.
- Currently holds position as a Support Scientist for I. M. Systems Group (IMSG) aiding in model evaluation and implementation of mesoscale NWP models.
- Routinely prepared and delivered presentations to colleagues in the Environmental Modeling Center (EMC) and the broader National Weather Service (NWS) on model performance and related meteorology.
- Firm understanding of synoptic and mesoscale meteorology and their application to the forecast process.
- Skilled at analyzing and visualizing NWP output through the use of various computer languages and display tools.

EDUCATION

- M.S., Atmospheric Sciences, University at Albany, State University of New York, 2014
- B.S., Atmospheric Sciences, University of Illinois at Urbana-Champaign, 2012

PROFESSIONAL EXPERIENCE

October 2014–Present: Support Scientist–Mesoscale Transition to Operations and Model Evaluation, IMSG at NWS/NCEP/EMC

- Responsible for working with NOAA’s Earth System Research Laboratory (ESRL) to transition Rapid Refresh (RAP) model code from development to operations.
- Created graphics and web display for parallel version of the RAP in order to evaluate differences between operational and parallel forecast behavior and to monitor the completion of hourly RAP cycles.
- Created interactive website for displaying plumes from the Global Ensemble Forecast System (GEFS)
- One of three members of the EMC Model Evaluation Group (MEG), which monitors forecasts from all NCEP models as well as global models run by other countries to identify differences in model behavior and performance.
- Prepared weekly model evaluation presentations and delivered them at MEG meetings to an audience of EMC and NWS colleagues.

SKILLS

Numerical Weather Prediction Models: RAP, HRRR, WRF

Programming Languages: Python, NCAR Command Language (NCL), MATLAB, Fortran, shell scripting, JavaScript, HTML, GEMPAK

Software Packages/Applications: MS Office suite

Operating Systems: UNIX, Windows (XP, Vista, 7)

RECOGNITION/HONORS

2014: Outstanding Oral Presentation Honorable Mention, 26th Conference on Weather Analysis and Forecasting at the 2014 AMS Annual Meeting

2014: Second-place Poster Award, Special Symposium on Severe Local Storms at the 2014 AMS Annual Meeting

2012: American Meteorological Society Graduate Fellowship

2012: Ogura Award for Outstanding Senior in Atmospheric Sciences
2012: University Honors
2012: James Scholar Graduation Honors
2009–2012: University Achievement Scholarship
2009: Cleveland Illini Club Scholarship

SELECT PUBLICATIONS/PRESENTATIONS

Oral:

- Guastini, C. T.**, and Bosart, L. F., The spectrum of progressive derecho formation environments, *National Weather Center Colloquium and Seminar Series*, Norman, OK, 20 May, 2014.
- Attard, H. E., Rios-Berrios, R., **Guastini, C. T.**, and Lang, A. L., Analysis of the meteorological precursors leading to the January 2013 sudden stratospheric warming, *39th Annual Northeastern Storm Conference*, Rutland, VT, March 2014.
- Guastini, C. T.**, and Bosart, L. F., The role of an upper-level potential vorticity anomaly in a severe weather outbreak during MPEX, *AMS Annual Meeting*, Atlanta, GA, February 4, 2014.
- Bosart, L. F., and **Guastini, C. T.**, On the formation, structure, and evolution of an eastern Pacific upper-level disturbance that contributed to severe weather east of the Rockies during MPEX, *AMS Annual Meeting*, Atlanta, GA, February 4, 2014.
- Guastini, C. T.**, and Bosart, L. F., Progressive derechos in the presence of closed upper-level subtropical anticyclones, *AGU Fall Meeting*, San Francisco, CA, December 9, 2013.
- Guastini, C. T.**, Bosart, L. F., and Lazear, R. A., Progressive derechos: Their initiation, maintenance, and predictability, *16th Cyclone Workshop*, Sainte-Adele, QC, Canada, September 25, 2013.
- Guastini, C. T.**, Bosart, L. F., and Lazear, R. A., Initiation and maintenance characteristics of the progressive derecho of 29–30 June 2012, *15th Conference on Mesoscale Processes*, Portland, OR, August 9, 2013.
- Guastini, C. T.**, Bosart, L. F., and Lazear, R. A., The intense progressive derecho of 29–30 June 2012: Initiation, maintenance, and impacts, *38th Northeastern Storm Conference*, Rutland, VT, March 9, 2013.
- Bosart, L. F., and **Guastini, C. T.**, Subtropical continental anticyclones, the “ring-of-fire,” and intense derechos, *The 26th Conference on Severe Local Storms*, Nashville, TN, November 2012.

Poster:

- Guastini, C. T.**, and Bosart, L. F., Progressive derechos in the presence of closed upper-level subtropical anticyclones, *AMS Annual Meeting*, Atlanta, GA, February 5–6, 2014.