Corey T. Guastini

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EDUCATIONAL BACKGROUND:

University at Albany, State University of New York, Albany, NY
Enrolled in M.S. program in Atmospheric Sciences, August 2012 – Present
Advisor: Dr. Lance F. Bosart

University of Illinois at Urbana-Champaign, Urbana-Champaign, IL
Bachelor of Science, Atmospheric Sciences, *summa cum laude*, May 2012

FORECASTING EXPERIENCE:

NOAA Hazardous Weather Testbed Spring Forecasting Experiment May 2013 and 2014, National Weather Center, Norman, Oklahoma
Using experimental convection-allowing ensembles and other deterministic convection-allowing models, I participated in an experiment aiming to ascertain the viability of such models in increasing the skill of convective forecasts.

Mesoscale Predictability Experiment (MPEX) June 2013, Boulder, Colorado
I aided in identifying possible triggers for convection over the Intermountain West that could be sampled with dropsondes from a GV research aircraft under the hypothesis that better sampling of such features increases the skill of convection-allowing models.

WxChallenge 2012 – 13
I ranked 23rd in the nation at the end of the year in this collegiate forecasting competition.

RESEARCH EXPERIENCE:

Master's Thesis August 2012 – Present, University at Albany, State University of New York
Under the guidance of Dr. Lance Bosart, I performed a climatological, composite, and case study analysis of warm season progressive derechos for the years 1996 – 2013.

Classroom Research Experience Fall 2012, University at Albany, State University of New York
Using the Weather Research and Forecasting (WRF) Model, I ran a small ensemble with perturbed soil moisture conditions for the 29 – 30 June 2012 progressive derecho to study the effects of soil moisture on convective development.

Capstone Research Project Spring 2012, University of Illinois at Urbana-Champaign
Under the guidance of Dr. Brian Jewett, I analyzed the effects of model resolution on convective forecasts using the WRF Model.

Summer Internship May – August 2011, University of Illinois at Urbana-Champaign
Under the guidance of Drs. Robert Rauber and Brian Jewett, I modeled cold pool propagation in shallow tropical convection using the WRF Model.

Classroom Research Experience Fall 2010, University of Illinois at Urbana-Champaign
Using a mobile Doppler radar (DOW7), I led a team of students in sampling lake effect snow from Lake Michigan to analyze the banded structure of boundary layer convection.

FELLOWSHIPS AND AWARDS:

2012 American Meteorological Society Graduate Fellowship
American Meteorological Society

Ogura Award for Outstanding Senior in Atmospheric Sciences, May 2012
Department of Atmospheric Sciences, University of Illinois at Urbana-Champaign

University Honors, May 2012
University of Illinois at Urbana-Champaign

James Scholar Graduation Honors, May 2012
University of Illinois at Urbana-Champaign

University Achievement Scholarship, August 2009 – May 2012
University of Illinois at Urbana-Champaign

Cleveland Illini Club Scholarship, May 2009
Illinois Alumni Club of Cleveland

CONFERENCE AWARDS:

Outstanding Oral Presentation Honorable Mention, 26th Conference on Weather Analysis and Forecasting at the 2014 AMS Annual Meeting
"The role of an upper-level potential vorticity anomaly in a severe weather outbreak during MPEX"

Second-place Poster Award, Special Symposium on Severe Local Storms at the 2014 AMS Annual Meeting
"Progressive derechos in the presence of closed upper-level subtropical anticyclones"

CONFERENCE PRESENTATIONS:

Oral:

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.

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.

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.

Contributed:

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.

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.

SKILLS:

Proficient in MATLAB, NCAR Command Language (NCL), GEMPAK, GR2Analyst, LINUX, UNIX, Windows (XP, Vista, 7), Microsoft Office (Excel, PowerPoint, Word)

Proficient in using Weather Research and Forecasting (WRF) Model