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Education

Ph.D. Agricultural Meteorology, Iowa State University, 2007, "Observations and simulations of mesoscale convective systems". Advisor R. W. Arritt.

M.S. Meteorology, Florida State University, 2001, "Multiscale analysis of the 25 January 2000 east coast snowstorm". Advisor P. H. Ruscher.

B.S. Atmospheric Science, State University of New York at Albany, 1999.

Teaching Experience

Post Doctoral research associate, Pacific Northwest National Laboratory, 2007-2008, Regional climate model assessment, and climate change impacts assessment. Advisor Ruby Leung.

Post doctoral research associate, Iowa State University, Summer 2007, mentored 1 undergraduate and 1 graduate student, performed research using Regional Climate Model data and observed carbon dioxide flux data. Advisor G. S. Takle.

Mentor, Iowa State University Senior Thesis Project, Fall 2005-2007, 3 students.

Teaching Assistant, Introductory Meteorology, Iowa State University, Fall 2001-2005, 300+ students per semester, taught unit on severe weather, developed homework assignments, lecture material, administered Web CT software, and two wireless polling systems.

Iowa State University Excellence in Teaching Award 2005.

Proposal, Hornbuckle, B., R. W. Arritt, and J. Correia Jr, 2005: A wireless polling system for Lush Auditorium providing immediate feedback to students and faculty. Iowa State University, 12pp, Funded.

Teaching Assistant, Synoptic Meteorology I and II, Florida State University, 2000-2001.

Stand-alone Instructor, Introductory Meteorology, Florida State University, Fall 2001, 120 students.

Teaching Assistant, Introductory Meteorology Lab, Florida State University, 1999-2000.

Refereed Publications

Correia, J., Jr., and R. W. Arritt, 2008: Assessing physics dependencies of MCS simulations. part I: Convection permitting experiments. *Wea. Forecasting*, in preparation.

Correia, J., Jr., and R. W. Arritt, 2008: Assessing physics dependencies of MCS simulations. Part II: Convective parameterization experiments. *Wea. Forecasting*, in preparation.

Correia, J., Jr., and R. W. Arritt, 2008: Mesoscale convective system characteristics observed during BAMEX. *Mon. Wea. Rev., In Press.*

Correia, J., Jr., R. W. Arritt and C. J. Anderson, 2008: Two dimensional idealized squall line simulations using the Kain-Fritsch convective parameterization scheme. Mon. Wea. Rev., In Press.

Gallus, W., Jr., J. Correia Jr., and I. Jankov, 2005: The 4 June 1999 Derecho event: A particularly difficult challenge for numerical weather prediction. Wea. Forecasting, 20, 705-728.

Fiorino, S. T. and J. Correia Jr., 2002: Gravity wave event diagnosed using Empirical Orthogonal Functions. Earth Interactions, 6, paper 1.

Extended Abstracts

Takle, G. S., S. C. Pryor, R. Barthelmie, T. K. Andersen, J. Correia Jr, D. Flory, R. W. Arritt, and W. J. Gutowski,2007: Trends in US surface winds over the last quarter of the 20C: Observations and model results. AGU Fall Meeting 2007, Poster, GC21A-0128.

Ansorge, A. J., J. Correia, and A. J. Clark, 2007: Coherence of rainfall propagation as simulated in the WRF model two different convective schemes. *18th Conf. on Numerical Weather Prediction*, Park City, UT P2.26

Correia, J., Jr. and R. W. Arritt, 2006: Dropsonde derived structure in Mesoscale Convective Systems observed during BAMEX. *23rd Severe Local Storms Conf.*, St. Louis, MO 7.1.

Correia, J., Jr., W. A. Gallus Jr., I. Jankov, and R. W. Arritt, 2004: Convective contamination of model initializations and the poor forecasts that follow. *22nd Conf. on Severe Local Storms*, Hyannis, MA 17.8.

Gallus, W. A., Jr., I. Jankov, and J. Correia Jr., 2004: The 4 June 1999 derecho: The ultimate challenge for numerical weather prediction. *22nd Conf. on Severe Local Storms*, Hyannis, MA P15.1.

Correia J., Jr., and R. W. Arritt, 2004: Preliminary results of a real time, time to space conversion for surface analysis. *84th AMS Annual Meeting*, Seattle, WA P1.4.

Correia, J., Jr., and R. W. Arritt, 2004: Numerical modelling of the 31 May 1998 severe bow echo. *84th AMS Annual Meeting*, Seattle, WA P1.7.

Correia, J., Jr., and R. W. Arritt, 2004: The effect of differential cloud cover on the propagation of a surface cold front. *84th AMS Annual Meeting*, Seattle, WA P3.2.

Correia, J., Jr., and R. W. Arritt, 2004: Convective cold pool structure from BAMEX dropwindsonde and surface analysis. *22nd Conf. on Severe Local Storms*, Hyannis, MA P3.2.

Correia, J., Jr., and R. W. Arritt, 2003: The influence of differential cloud cover on the propagation of a surface cold front. *10th Conf. on Mesoscale Processes*, Portland, OR P1-32.

Presentations

Correia, J., Jr., and R. W. Arritt, 2006: Dropsonde derived structure in Mesoscale Convective Systems observed during BAMEX. *23rd Severe Local Storms Conference*, St. Louis, MO 7.1.

Correia, James Jr. and R. W. Arritt, 2004: Convective contamination of model initializations and the poor forecasts that follow. *22nd Conference on Severe Local Storms*, Hyannis, MA 17.8.

Correia, James Jr. and R. W. Arritt, 2004: Convective cold pool structure from BAMEX dropwindsonde and surface analysis. *22nd Conference on Severe Local Storms*, Hyannis, MA P3.2.

Correia, James Jr. and R. W. Arritt, 2003: The influence of differential cloud cover on the propagation of a surface cold front. *10th Conference on Mesoscale Processes*, Portland, OR P1-31.

Correia, James Jr. and R. W. Arritt, 2004: Preliminary results of a real time, Time to Space conversion for surface analysis. *84th AMS Annual Meeting*, Seattle, WA P1.4.

Correia, James Jr. and R. W. Arritt, 2004: Numerical modelling of the 31 May 1998 severe bow echo. *84th AMS Annual Meeting*, Seattle, WA P1.7.

Correia, James Jr. and R. W. Arritt, 2004: The effect of differential cloud cover on the propagation of a surface cold front. *84th AMS Annual Meeting*, Seattle, WA P1.32.

Internal Presentations

Mesoscale Convective Systems as revealed by dropsonde data during BAMEX. Fall 2005.

Can cumulus parameterizations depict propagating Mesoscale Convective Systems? Co-presented with Christopher J. Anderson, Spring 2005.

Mesoscale convective systems. Presented to the Dept. of Agronomy in cooperation with AGRON 699 Fall 2004.

Missing wind observations from rawinsondes over CONUS. Spring 2004.

Service

Reviewer for Journal of Geophysical Research-Atmospheres, Monthly Weather Review, Weather and Forecasting, and the National Science Foundation.

President and treasurer of the Iowa State University Graduate Meteorology Club 2003-2006
Organized visits and secured funding for B. Ferrier, D. Schultz, and W. Skamarock, organized an annual poster session within the department, organized short courses, started a Scientific Paper Discussion group; developed a questionnaire for the Annual Poster Session.

Storm chasing, 8 years, includes TWISTEX field program with Tim Samaras.

Skills

Fluent in Fortran 77, Fortran 90, C-shell scripting, HTML, UNIX, Linux, Windows, Macintosh, GEMPAK, GRaDS, FERRET, JAVA IRAS, NCL, Perl, IDL, NetCDF, Matlab, LaTeXand Python. Numerical Modelling experience with MM5, WRF, and RCM-WRF. Working knowledge in Classnet and WebCT.