Storm-scale ensemble modeling at Central Michigan University

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Central Michigan University's Meteorology program has obtained hardware to run the WRF-EMS in real-time over Michigan and Wisconsin. Four ensemble members are initialized daily at 09 UTC, with forecasts out 27 hours. The ensemble is configured to mimic a similar real-time system known as the HopWRF, with 4 km horizontal grid spacing, 45 vertical levels, and a variety of physics and boundary conditions. After the model has finished, a number of shell scripts run GrADS to create the latest imagery for display on the web. We create a variety of ways to visualize the ensemble data, including probability, plume, and stamp images that can be used to aid in forecasting. These images are placed on an easy to use website so that others may utilize the data for forecasting. The website, http://weather.eas.cmich.edu, is typically updated around 12 UTC. The primary goal of the modeling effort is to aid in teaching students about appropriate use of both convection-allowing models and probabilistic output, also others in the meteorological community may find the data useful.