MMM SEMINAR RAL

Convective-scale Data Assimilation: What We Have Learned and Where We Are Going

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The last two decades have seen a remarkable increase of activities in high-resolution numerical weather prediction (NWP) in both the research and operational communities. While the value of convection permitting NWP has been shown to improve severe weather guidance, the question remains to be answered regarding its usefulness for location- and time-specific prediction of high impact weather. A key challenge is the initialization of convection-permitting models with high density and frequency observations, such as those from radars and mesonets, through rapidly updating data assimilation. In this talk, the challenges for convective-scale data assimilation will be discussed as well as results from past studies using the variational data assimilation method. The impact of the convective-scale data assimilation on short-term (0-12h) prediction of quantitative precipitation will be evaluated using the Weather Research and Forecasting (WRF) model. The strategic vision for convective-scale data assimilation and short-term prediction of high impact weather will also be discussed.

This seminar will be recorded and available via webcast at: http://www.fin.ucar.edu/it/mms/fl-live.htm

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Refreshments 3:15 PM NCAR-Foothills Laboratory 3450 Mitchell Lane Bldg 2 Main Auditorium 1022