MMM SEMINAR SERIES

Mesoscale & Microscale Meteorology

Ensemble of Data Assimilations (EDA) impact studies in support of NOAA's Next-Generation Microwave Sounding Missions

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This study assesses the potential impact of hypothetical future microwave (MW) sounding instruments to inform the design of NOAA's next-generation MW sounding missions. Conducted as an international collaboration between the University of Maryland Cooperative Institute for Satellite Earth System Studies (UMD/CISESS) and the European Centre for Medium-Range Weather Forecasts (ECMWF), this work evaluates the Numerical Weather Prediction (NWP) benefits of future microwave sounders using an Ensemble of Data Assimilations (EDA) approach.

The EDA provides an affordable and manageable framework for simulating the impact of future observing systems. Recent experience (ie., GNSS-RO) comparing EDA predictions with the subsequent impact of real measurements gives us some confidence that, with appropriate interpretation and care, they provide useful information that can help guide the future evolution of the global observing system. The EDA provides a theoretical estimate of the expected reduction in analysis and short-range forecast uncertainty due to the assimilation of new observations. A decrease in ensemble spread resulting from additional data indicates a beneficial impact…Click Here for Full Abstract.

Thursday, 31 July 2025, 2:00PM

Refreshments 1:45PM

Please also join colleagues for refreshments and informal discussion after the seminar until 3:30PM

NCAR-Foothills Laboratory, 3450 Mitchell Lane

FL2-1001, Small Seminar

Seminar will also be live webcast

https://sundog.ucar.edu/public/page/MMM

Participants may ask questions during the seminar via Slido.

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