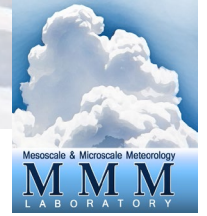# MMM SEMINAR SERIES

An Hourly-Cycling Global Data Assimilation System

Laura Slivinski, NOAA

The US operational global data assimilation system cycles with a six-hourly cadence, which is not frequent enough to handle the rapid error growth associated with fast-moving hurricanes or other storms. This motivates development of an hourly-updating global data assimilation system, but observational data latency can be a barrier. Two methods are presented to overcome this challenge: "catch-up cycles", in which a 1-hourly system is reinitialized from a 6-hourly system that has assimilated high-latency observations; and "overlapping assimilation windows", in which the system is updated hourly with new observations valid in the past three hours. The performance of these methods is assessed in a near-operational setup using the Global Forecast System by comparing short-term forecasts to in-situ observations. Experiments in which the role of data latency is eliminated are also analyzed to further evaluate the impact of cycling cadence on analyses and forecasts.

Thursday, 18 January, 2024, 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
FL2-1022, Large Auditorium
Seminar will also be live webcast
https://operations.ucar.edu/live-mmm
Participants may ask questions during the seminar via Slido.