

# MMM SEMINAR SERIES



## *Using uncrewed aircraft systems for fundamental research and improved numerical weather prediction*

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Uncrewed aircraft systems (UAS) have been used to improve understanding of atmospheric phenomena that are typically poorly observed by conventional observing systems. By virtue of their controlled/directed flight in conditions too hazardous for manned instrumentation and their ability to collect thermodynamic observations with greater accuracy and higher fidelity than other sensing systems, UAS can expose the structure of atmospheric phenomena enabling refined understanding of foundational mechanisms that control the evolution of these phenomena. Additionally, evidence is growing to justify the operationalization of UAS for weather forecasting. In this vision for a modernized meteorological observing network, regular observations of the atmosphere by UAS would be available in real-time to forecasters, assimilated into numerical weather prediction models, and used to train and initialize AI models.

In this talk, results will be presented from research using UAS data to better understand severe deep convection and the hazards it produces. Results will also be presented from experiments aimed at evaluating the impact of UAS data on numerical weather prediction...[Link to Abstract and Bio.](#)

**Thursday, 12 March 2026, 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 Seminar**

**Seminar will also be live webcast**

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

Participants may ask questions during the seminar via Slido.