

MMM SEMINAR SERIES



Development of the UFS-Arctic: A Unified Forecast System Pan-Arctic Research Capability

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The NOAA Physical Sciences Laboratory (PSL) is developing a new coupled regional Arctic forecasting system as part of the Unified Forecast System (UFS). This system is designed to provide short- to medium-range forecasts tailored to the unique conditions of the Arctic, where strong interactions between the atmosphere, ocean, and sea ice play a central role. We here present on the model configuration, initialization, and Arctic-focused physics parameterizations. Recent key configuration upgrades include refining the atmospheric grid resolution from ~50 km to ~10 km and transitioning the shared ocean-ice grid from 10 km to a 0.08° (3–5 km) Arctic cap based on the Real-Time Ocean Forecast System (RTOFS) grid. This will also allow for direct initialization from RTOFS data without interpolation. The system successfully executes 10-day hindcasts for both summer and winter test cases. We are in the starting stages of evaluating these hindcasts against observational datasets (e.g., MOSAiC) and NOAA/PSL's experimental Coupled Arctic Forecast System (CAFS) model, which currently produces daily Arctic forecasts in PSL... [Link to Full Abstract](#).

Thursday, 21 May 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.



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