AMS'24 Short Course Agenda

Earth Prediction InnovationCenter(EPIC) Workshop: Running the Unified Forecast System (UFS) Short Range Weather (SRW) Application in the Cloud

Saturday, January 27, 2024 8:30am-12:30pm ET (4hrs)
Capacity is set to 60 in-person and online.

This short course will teach students how to configure and run NOAA's Unified Forecast System (UFS) Short Range Weather (SRW) Application on the Amazon Web Services (AWS) cloud computing platform. The UFS SRW App is a numerical weather prediction framework that targets predictions of atmospheric behavior on a limited spatial domain and on timescales from less than an hour out to forty-eight hours. This workshop aims to introduce participants to configuring and running the SRW App in the cloud.

Agenda

- Introduction, communication channels during the workshop
- Logging in to cloud instances
- Starting data and software container downloads
- Overview of the UFS, EPIC, and the Short-Range Weather (SRW) Application
- Staging input data
- Prerequisites, python/conda environments
- Explore a software container with libraries, SRW code and binaries
- Configure an experiment: model grid, physics, computational jobs
- Workflow tasks, workflow generation
- Running a control experiment
- Modify computational requirements
- Configure a different SRW experiment: different grid and physics
- Generating graphical output, plotting model results
- Wrap-up