**“CESM CMIP6 Data Workflow”**

The Community Earth System Model (CESM) is looking to generate up to 6PB of raw data to contribute towards CMIP6. This will put heavy demands on our computational resources and existing post-processing tools. Based on the performance of these existing tools during CMIP5, it may not be possible to process the required amount of data unless we adopt new methodologies and better practices. To address these issues within our post-process workflow, we are incrementally replacing existing processes. These changes involve creating automated run scripts, creating new parallel Python post-processing tools that have cut our processing times by orders of magnitude, and further developing our run database to orchestrate and monitor all experiments. This talk will focus on describing our CMIP6 workflow, the performance improvements we have seen, and what new implications it will have on our computational resources.

**Professional Biography:**

Sheri Mickelson is a software engineer in the Application Scalability and Performance Group and the CESM Software Engineering Group at NCAR. Her main interest is in application performance. Currently, she is helping lead the effort to improve the performance of various CESM post-processing tools in order to get ready for CMIP6.