**Cloud Computing Support for the Weather Research and Forecasting Model**

**Kelly Werner**, Jordan Powers, and David Gill, *National Center for Atmospheric Science*

The Weather Research and Forecasting (WRF) Model has become arguably the world’s most utilized numerical weather prediction model. Uniquely designed to serve both research and operational needs, it has grown to offer a spectrum of options and capabilities for a wide range of applications. WRF is a community model, driven by the developments and contributions of a large and active worldwide user base. The National Center for Atmospheric Research (NCAR) officially supports WRF to the community, and NCAR’s WRF efforts are now exploiting cloud computing capabilities and resources to enable model operation, facilitate code development, conduct system training, and provide user assistance.

The emerging technology of cloud computing is becoming an important tool for overall WRF support by NCAR. To address bottlenecks in model support and development, NCAR has turned to cloud compute services and applications from multiple providers. It is applying cloud computing to enhance WRF support and development through improved classroom and online training, university support applications, model documentation, and utilities for testing and integration of contributed code. An overview of these efforts and the difficulties in applying cloud computing for major community model support will be discussed.