

Title:

Funder perspective -NSF funding pathways for data related activities and research

Abstract:

New developments in earth system modeling and supercomputing have resulted in exploding growth in data volume and increased data heterogeneity. These changes have resulted in a paradigm shift in the scientific data landscape that calls for advanced computing methodologies for data discovery along with rapid technological advancements in data storage, processing, and distribution. The needs and challenges of the research community have evolved with this changing landscape with vastly varying differences in how data is collected, interpreted, stored, and managed in various Geoscience fields.

NSF has sought community input to understand data management needs via workshops, town halls, and Dear Colleague Letters (DCLs), and has issued a number of solicitations that have provided funding for advancements in cyberinfrastructure for enabling scientific breakthroughs. This presentation will provide context for this workshop, which seeks community perspective on needs for geosciences-specific data and cyberinfrastructure. A review of community feedback from the RFI (Request for Information) on Future Needs for Advanced Cyberinfrastructure to Support Science and Engineering Research (NSF CI 2030) will be presented along with a broad overview of current NSF initiatives and opportunities in the collection, analysis, management, and distribution of scientific data, including information about Harnessing the Data Revolution, one of NSF's 10 Big Ideas.

Bio:

Dr. Subhashree (Shree) Mishra is a program director in the NCAR & Facilities Section, Division of Atmospheric and Geospace Sciences at the National Science Foundation. She leads oversight and program management efforts for NCAR's Supercomputing Center and associated programs. Dr. Mishra also serves on the NSF Geoscience Cyber Infrastructure working group and is Geoscience lead for NSF's Graduate Research Fellowship Program (GRFP).

Dr. Mishra received her M.S. and Ph.D. in Atmospheric Sciences from the University of Nevada, Reno and pursued post-doctoral research in Lidar and Radar based remote sensing at the National Severe Storms Laboratory in Norman, Oklahoma. Prior to coming to NSF, she served as a AAAS Science & Technology Policy fellow at the headquarters of the U.S. Department of Energy (DOE) where she helped manage several projects in advanced forecasting research across several DOE national labs. Her research expertise is in cloud microphysics, atmospheric remote sensing, and in-situ aircraft measurements of cloud properties and atmospheric aerosols.