

## **Tools and Cyberinfrastructure for Sharing and Using Big Data**

Enabling critical zone research requires management and analysis of large, diverse data sets from multiple sites. This challenge has led the National Science Foundation to make strategic investments in developing community data tools and cyberinfrastructure that focus on environmental and water data. These tools enable easier participation the creation, management, publication, discovery, and reuse of CZ data.

CUAHSI (The Consortium of Universities for the Advancement of Hydrologic Science, Inc.) is one resource for managing environmental data. CUAHSI is a non-profit organization funded by the National Science Foundation to aid students, researchers, and educators in using and managing big data and models to support research and education in the earth sciences. This presentation will focus on two free and open-source CUAHSI tools that enable: (1) enhanced data discovery online from multiple sources using advanced searching capabilities and (2) flexible publishing tools to easily share products resulting from research and/or data collection. Examples using U.S. CZ data will be shown.