

# DDAD2011

## Symposium on Data-Driven Approaches to Droughts

West Lafayette, IN

June 21-22, 2011



### Overview

Deep societal and economic impacts from drought conditions mandate a better understanding of how droughts are characterized and how drought mitigation strategies are designed. Yet, droughts continue to be one of the most difficult natural disasters to model.

A variety of datasets and human impressions are currently documented within drought maps such as the US Drought Monitor. The data come from different domains: satellite data for soil and vegetation state, weather and climatic data including precipitation, temperature, wind trajectories and their anomalies, and hydrological data such as water levels in reservoirs and streams. Additionally, qualitative information related to analogous years (e.g., El Niño states), timing of droughts, and regional vulnerability or resilience are also factored into the descriptions of the drought states. Many questions remain about characterizing drought risk in different settings and applications, and on how current drought maps and datasets can be paired with other data sources to develop new understanding about drought triggers and impacts. Linkages between droughts and agriculture, air quality, water quality, human health, urbanization, etc. need to be established, and data requirements for determining the economic and societal impacts need to be better understood.

This symposium will serve as a forum for researchers and stakeholders to interact and exchange current and emerging techniques for drought characterization, along with methods for local and regional data collection, compilation, and format standardization. This symposium will attract studies that demonstrate how the new knowledge base created from the cyberinfrastructure for data collection, when combined with visualization techniques, leads to improved understanding and practical applications. It will feature keynote speakers, a series of invited presentations, posters, and panel discussions. Student travel grants are available.

This symposium is sponsored by the National Science Foundation through the Office of Cyberinfrastructure\* and the Hydrological Sciences Division, and is in partnership with EWRI (Environmental & Water Resources Institute of ASCE) and USDA-NIFA (US Department of Agriculture-National Institute of Food Agriculture).

\*DRINET is a National Science Foundation funded cyberinfrastructure project to build a cyber environment for collecting and disseminating local to regional scale drought information. The DRINET portal, based on the HUBzero™ technology for scientific collaboration and education, supports interactive online modeling and simulation tools, access to heterogeneous datasets related to drought studies and education/training material from the DRINET team and the broader community studying droughts.

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### Who should attend

Researchers, students, decision makers, any stakeholders who are interested in drought characterization, risk assessment, drought related data and tools.

### Location

Purdue University,  
West Lafayette, Indiana

### Important Dates

Full paper due: April 29, 2011  
Acceptance notification: May 9, 2011  
Poster abstract due: May 15  
Registration opens: Open

### Publications

The symposium proceedings will be published in Purdue's e-Pubs Repository where they will be freely accessible. Submission to a special issue of the ASCE Journal of Hydrologic Engineering will be encouraged.

### Planning Committee

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### More information

Registration and other information can be found at <http://www.drinet.hubzero.org>

