

**DDDAS Workshop on Contaminants,  
Wildfires, and the Environment  
LNCC, Petropolis, Brasil  
July 10-14, 2006**

**Craig C. Douglas  
University of Kentucky and Yale University**

**Maurício Kritz  
Laboratorio Nacional de Computacao Cientifica**

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(U.S.A.) and LNCC and GEOMA (Brasil)**

# Format

- ◆ **Short talks**
  - 30 minutes and informal in morning and afternoon
  - Reactive talks allowed afterwards
- ◆ **Breakout groups to work on common interests**
- ◆ **Start planning First International Symposium on DDDAS**

## Speakers (U.S.A.)

- ◆ **Frederica Darema's (NSF) Stand-In, *DDDAS Projects***
- ◆ **Richard Ewing, Texas A&M University, *Dynamic Data Driven Applications in Porous Media Flow***
- ◆ **Y. Efendiev, Texas A&M University, *Solution Updating in a Dynamic Data Driven Simulation***
- ◆ **Robert Lodder , University of Kentucky, *Sensors, DDDAS, Little Green Men on Mars, and Drugs***
- ◆ **Mohamed Iskandarani, University of Miami, *Dynamic Data-Driven Ocean Models***
- ◆ **Anthony Vodacek, Rochester Institute of Technology, *Water Quality and DDDAS***
- ◆ **Janice Coen, National Center for Atmospheric Research, *Demonstrating the Validity of a Wildfire DDDAS***
- ◆ **Chris R. Johnson, University of Utah, *Dynamic Data-Driven Application and SCIRun***
- ◆ **Craig C. Douglas, University of Kentucky, *When DDDAS Meets HPC: A Train Wreck in the Making?***

## Speakers (Brasil)

- ◆ **Maurício Kritz, LNCC, *Building Bridges between Biologists and Ecologists Using DDDAS***
- ◆ **Claudia Mazza Dias, LNCC, *Flux and Transport of Nutrients in the Cantão State Park***
- ◆ **Maria Tereza F. Piedade, INPA, *Ecology of Flooded Vegetation***
- ◆ **Solange Rutz UERJ, *Finslerian systems in forest succession***
- ◆ **Fabiano Gomes de Oliveira, IISTC, *Estimation of Missing Data***
- ◆ **Hélder Lima de Queiroz, ISDM, *Flooded Ecosystems and the Flow of Water***
- ◆ **Renato Silva, LNCC, *Nutrient and Contaminant Transport in Amazon Rivers***
- ◆ **Luiz Bevilacqua, LNCC, *A Seasonal Mathematical Model For Malaria Spreading With Partial Health Care***

# Topics

- ◆ **Contaminant identification and tracking**
  - Underground
  - Near coastal regions
  - Rivers and lakes
- ◆ **Flooding**
  - Flooding in Amazon ecosystems
  - Water flow through a forest
  - Coastal flooding
- ◆ **Wildfire tracking**
  - Differences between mountain and Amazon type fires

# Topics

- ◆ **Sensors and data collection**
  - Water, air, space, or ground based
  - Airborne and satellites
  - Movable versus fixed location
  - Frequency and method of data collection
  - Reprogrammable, smart sensors
- ◆ **Software environments for DDDAS**
  - Problem solving environments
  - Middleware for DDDAS
  - HPC requirements for Grid based DDDAS
  - Data centers