

April 11-15, 2011

Societally Relevant Computing

IMA Annual Program Workshop

Organizers:

Michael P. Brenner (Engineering and Applied Sciences, Harvard University)

Clint N. Dawson (Institute for Computational Engineering and Sciences, University of Texas at Austin)

Margot Gerritsen (Energy Resources Engineering, Stanford University)

Anna M. Michalak (Civil and Environmental Engineering / Atmospheric, Oceanic and Space Sciences, University of Michigan)

Description:

Simulation and computation play a critical role in important societal problems. The workshop focuses on two themes: (1) major computational efforts in a number of different problems of societal importance, including climate, atmospheric pollution, floods and earthquakes, alternative energy sources and carbon sequestration and (2) mathematical foundations of computer architectures, algorithms, error estimation and uncertainty quantification methods.

Speakers:

Todd Arbogast (University of Texas at Austin)

James Michael Done (University Corporation for Atmospheric Research)

Margot Gerritsen (Stanford University)

Robert L. Higdon (Oregon State University)

David Michael Holland (New York University)

Herbert E. Huppert (University of Cambridge)

Philip W Jones (Los Alamos National Laboratory)

Eugenia Kalnay (University of Maryland)

Peter K. Kitanidis (Stanford University)

Randall J. Leveque (University of Washington)

Andrew J. Majda (New York University)

Darcy E. Ogden (Scripps Institution of Oceanography)

Malgorzata Peszynska (Oregon State University)

Alain Pumir (Centre National de la Recherche Scientifique)

Juan Mario Restrepo (University of Arizona)

Mauricio Santillana (Harvard University)

Ronnie Sircar (Princeton University)

Joannes Jacobus Westerink (University of Notre Dame)

Beth Wingate (Los Alamos National Laboratory)

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