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SAMSI Events

High Dimensional Approximation for Uncertainty Quantification
When: November 10, 2011
Where: SAMSI in Research Triangle Park, NC
Participation is open for a limited number of external registrants. Speakers will present their views and research on problems of high-dimensional approximation in UQ. Group discussions will be carried out throughout the day to encourage interaction and a deeper understanding of the research issues.
Details here.

Mini-Workshop/Special Seminar Series: Multiscale, Multiphysics Models in Materials, Energy and Sustainability Issues
When: November 17, 2011
Where: SAMSI in Research Triangle Park, NC
Speaker: Hany Abdel-Khalik (NC State U. and INL), "Multiscale Modeling of Neutronics"

When: December 15, 2011
Where: SAMSI in Research Triangle Park, NC
Speaker: Ayetkin Gel (NETL), "UQ in Upscaling Goal-Gas Plant Prototypes
The series will focus on materials and energy, especially as related to issues important to sustainability, including nuclear fuel, coal gas production, batteries and fuel cells, wind power, material modeling, pollution, power grid, and so on.
Details here.

UQ: Observations Workshop
When: January 17-19, 2012
Where: Asheville, NC
Speakers, will present their views on the general issue of observations as it pertains to the quantification of uncertainty in various applications. Discussions will be carried out throughout the workshop to encourage interaction and foster a deeper understanding of the research issues. Deadline is December 15, 2011.
Details here.

Undergraduate Workshop
When: February 24-25, 2012
Where: SAMSI in Research Triangle Park, NC
This workshop will cover topics of current interest in statistics and applied mathematics with a particular focus on applications of uncertainty quantification. Deadline is Friday, January 27, 2012.
Details here.

SAMSI Programs for 2012 - 2013

SAMSI announces its two programs for the academic year of 2012 - 2013. They include "Data-Driven Decisions in Healthcare" and "Statistical and Computational Methodology for Massive Datasets."

The program on Data-Driven Decisions in Healthcare will focus on issues of mathematical and statistical theory and methodology that must be addressed to improve evidence-based healthcare decision-making. It will be diverse in terms of science and participants. The goal is to strengthen the link between data and decisions, a path that includes major challenges in mathematical modeling and statistical inference. The program will highlight and increase the role that statistics, applied mathematics and operations research can play in making principled—that is, data-driven—healthcare decisions.
Details here.

The program on Statistical and Computational Methodology for Massive Datasets will explore fundamental methodological questions of statistics, mathematics and computer science posed by massive datasets, with applications to astronomy, high energy physics, and the environment. Serious challenges posed by massive datasets have to do with "scalability" and "data streaming". Techniques developed for small or moderate-sized datasets simply do not translate to modern massive data sets. Data acquisition rates on the order of gigabytes per second necessitate innovative approaches towards computing environments, analysis, and algorithms.
Details here.

SAMSI's Summer Programs for 2012

Summer Program on Nonlocal Continuum Models for Diffusion, Mechanics and Other Applications
When: June 25 - 29, 2012
Where: SAMSI in Research Triangle Park, NC
Participants in the workshop will discuss modeling, mathematical, statistical, computational, and applications issues such as kernel choices, connections between nonlocal continuum models and discrete models, well posedness of the equations, finite element and other discretization methods, efficient solution methods for discretized systems, uncertainty quantification and applications including mechanics, image processing, graphs, diffusion and wave propogation.
Details here.

Summer Program on Computational Advertising
When: August 6 - 17, 2012
Where: SAMSI in Research Triangle Park, NC
The mathematical challenges that arise in computational advertising include massive, high-speed linear programming, better agent-based models for auction dynamics, and the computational finance behind dynamic management of the sales portfolio. The statistical challenges include modeling and forecasting of trends among users, prediction methodology for recommender systems, and modeling the revenue streams.
Details here.

Co-Sponsored Events

Network of Greater Georgia Institutions for Neuroimaging and Statistics (NOGGINS) Workshop
April 20, 2012 at University of Georgia in Athens, GA. ARA ELIGIBLE.
Details here.

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