

samsi

NSF ● Duke ● NCSU ● UNC ● NISS

Location: NISS building
Research Triangle Park
North Carolina

Information: www.samsi.info

- Vision: To focus on the *synthesis* of statistical sciences and applied mathematical sciences with disciplinary science to confront difficult data- and model-driven *scientific challenges*.
- Past SAMSI Programs
 - 2002-03
 - Inverse Problem Methodology in Complex Stochastic Models
 - Large Scale Computer Models for Environmental Systems
 - Challenges in Stochastic Computation
 - 2003-04
 - Network Modeling for the Internet
 - Multiscale Model Development and Control Design
 - Data Mining and Machine Learning
 - 2004-05
 - Latent Variable Models in the Social Sciences
 - Data Assimilation in Geophysical Systems
 - Computational Modeling of Infectious Disease
 - 2005-06
 - National Security and Homeland Defense
 - Financial Mathematics, Statistics and Econometrics
 - Astrostatistics
 - Replicability and Reproducibility in Scientific Studies (July, 06)

Current and Future Programs

- 2006-07
 - High Dimensional Inference and Random Matrices
 - Development, Assessment and Utilization of Complex Computer Models (with subprograms for engineering models, environmental/ecological models, granular/fluid flow models, biological models and methodology)
- 2007-08
 - Random Media (Full year)
 - Risk Analysis, Extreme Events and Decision Theory (Full Year)
 - Environmental Sensor Networks (Spring)
 - Dynamic Treatment Regimes and Multi-Stage Decision Making (June, 2007)

- 2008-09 (Tentative)
 - Dynamic Monte Carlo for Statistical and Scientific Computing
 - Mathematical and Statistical Models for Neuronal Activity
 - Agent-based Modeling in the Social Sciences
 - Algebraic Techniques in Statistics and Systems Biology
 - Two Summer Programs TBD

Opportunities for Participation

- Proposing and leading a research program (see any directorate member).
- Visiting researchers (short and long term)
- Workshop participation
- Providing testbed problems and data
- Postdoctoral opportunities (2+ years)
- Graduate students
 - participate in major research programs
 - summer interdisciplinary workshops
- Undergraduate workshops

Working Groups

- *Working groups* organize and perform the ongoing research of the program.
 - Regular weekly meetings
 - Can be focused on testbed problems
 - Usually 10-15 people, and typically interdisciplinary
 - Each has a webpage for scheduling, reporting talks and results, archiving background information, etc.
 - External participation in working groups is encouraged and facilitated via videoconferencing and data-conferencing (through WebEx).

Bayesian Focus Week

- Talks and discussions here Monday and Tuesday with lunch across hall
- Poster session this evening on 2nd floor
- Wednesday meetings in AB (2nd floor) and lunch on same floor
- Thursday and Friday back here
- Any questions, staff member will be on hand
- WELCOME-ENJOY THE WEEK!