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Program on Model Uncertainty: Mathematical and Statistical

2018-2019

Mathematical models use data to develop and solve complex, real world problems.However a mathematical or statistical model of a process cannot precisely represent or predict all the components of a large process across all length and time scales. It is crucial therefore to understand the uncertainties inherent in the modeling, simulation, and analysis, a process known as Uncertainty Quantification (UQ). Hypothesis testing, model selection, model averaging, and model criticism are all part of Model Uncertainty, which complements UQ. This year-long program will bring together researchers from the UQ and MU communities, to address common challenges. The goals of the program include:

- Determining unknown or poorly constrained parameters, and initial and/or boundary conditions, appropriate for the model equations
- Reducing the complexity of the model
- Understanding the propagation of uncertain inputs in order to characterize uncertainty in the outputs
- Selecting among competing models, or optimally utilizing all available models

AND MORE...

Opening Workshop: *August 20-24, 2018*

- Research Fellowship Opportunities

For more information contact: *mums@samsi.info*

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