Colloquium

UNIVERSITY OF GEORGIA
DEPARTMENT OF STATISTICS

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"Tikhonov Regularization for Emulating Deterministic Computer Simulators"

For many expensive computer simulators, the outputs are deterministic and thus the desired statistical surrogate (emulator) is an interpolator of the observed data. Gaussian spatial process (GP) is commonly used to model such simulator outputs. Fitting a GP model to n data points requires numerous inversion of a correlation matrix R. This becomes computationally unstable due to near-singularity of R. The popular approach to overcome near-singularity introduces over-smoothing of the data. In this talk, I will present an iterative regularization approach to construct a new predictor that gives higher prediction accuracy.

Thursday August 19, 2010
Statistics Building
University of Georgia
Athens, GA 30602
3:30 P.M. – Room 306, Statistics Building
Refreshments following talk at 4:30 P.M. in room 230 (The Cohen Room)