

DEPARTMENT OF STATISTICS COLLOQUIUM SERIES

Texas A&M University

PETROS DELLAPORTAS

Department of Statistics
Athens University of Economics and Business

CONTROL VARIATES FOR REVERSIBLE MCMC SAMPLERS

ABSTRACT:

A general methodology is presented for the construction and effective use of control variates for reversible MCMC samplers. The values of the coefficients of the optimal linear combination of the control variates are computed, and adaptive, consistent MCMC estimators are derived for these optimal coefficients. All methodological and asymptotic arguments are rigorously justified. Numerous MCMC simulation examples from Bayesian inference applications demonstrate that the resulting variance reduction can be quite dramatic.

This is joint work with Ioannis Kontoyiannis.

DATE: Thursday, March 12, 2009

TIME: 11:10 a.m. – 12:10 p.m.

PLACE: Room 150, Blocker

Refreshments will be served in the Statistics Conference Room at 10:30 am for those attending the seminar.