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SEMINAR

"Control Variates for Reversible MCMC Samplers"

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Room 23 – Via Sarfatti 25 - 20136 Milano

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.