STATISTICS COLLOQUIUM

MONDAY, MARCH 28, 2011
TALK: 4:00 PM — SCIENCE CENTER Rm.309
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“Hybrid Monte Carlo in High Dimensions”

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ABSTRACT

The Hybrid Monte-Carlo algorithm employs Hamiltonian dynamics to provide non-local, non-symmetric proposals for MCMC algorithms. I will briefly describe the algorithm and some of its properties before I present our investigations on the behavior of the algorithm in high dimensions. Additionally, I will present a modification of the standard method which gives rise to a Hybrid Monte-Carlo algorithm on a Hilbert space and discuss its practical implications.