STATISTICS COLLOQUIUM SERIES

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Some Tools for Sampling Complex Probability Distributions

MONDAY, September 26, 2011. at 4:00 PM

133 Eckhart Hall, 5734 S. University Avenue Refreshments following the seminar in Eckhart 110.

ABSTRACT

This talk will survey my efforts with coworkers to develop and analyze Monte Carlo sampling algorithms for complex (usually high dimensional) probability distributions. These sampling problems are typically difficult because they are badly scaled and/or they have energetic or entropic barriers separating metastable regions.

These problems cannot be solved accurately by standard sampling methods. The talk will have a computational statistical mechanics flavor but the methods are general and if we have time we will see a few other applications.

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