

STATISTICS COLLOQUIUM

MONDAY, DECEMBER 2, 2013

TALK: 4:15 PM — SCIENCE CENTER RM. 705

RECEPTION: 3:50 PM — SCIENCE CENTER, 7TH FLOOR

“Consistency of the Adaptive Multiple Importance Sampling”

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ABSTRACT

Among Monte Carlo techniques, the importance sampling requires fine tuning of a proposal distribution, which is now fluently resolved through iterative schemes. The Adaptive Multiple Importance Sampling (AMIS) of Cornuet *et al.* (2012) provides a significant improvement in stability and Effective Sample Size due to the introduction of a recycling procedure. However, the consistency of the AMIS estimator remains largely open. In this work, we prove the convergence of the AMIS, at a cost of a slight modification in the learning process. Numerical experiments exhibit that this modification might even improve the original scheme.

This is joint work with Pierre Pudlo and Mohammed Sedki.