

Population MC 1

Friday, November 22, 2013 9:00 AM (1h 30m)

Adaptive importance sampling, or population Monte Carlo (PMC), is a powerful technique to sample from and integrate over complicated distributions that may include degeneracies and multiple modes in up to roughly 40 dimensions. PMC is best for tough problems as the costly evaluation of the target distribution can be massively parallelized.

Based on a simplified global fit for new physics, the individual parts of the algorithm ranging from the initialization over proposal-function updates to the final results are presented step by step in a hands-on and visual fashion. Only basic knowledge of C++ is required in order to modify the given source-code examples for a more rewarding learning experience.

Presenter: BEAUJEAN, Frederic (MPI Munich)