

BAT - a complex Markov chain Monte Carlo application

Wednesday, November 20, 2013 2:00 PM (2 hours)

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The tutorial will give an introduction to the Bayesian Analysis Toolkit (BAT), a C++ tool for Bayesian inference. The software is based on algorithms for sampling, optimization and integration where the key algorithm is Markov Chain Monte Carlo. Interfaces to existing software tools exists, e.g., the ROOT implementation of Minuit, and the Cuba library. A simple physics example will be discussed and formulated as a statistical model in BAT. The first steps will include the calculation of marginal distributions and uncertainty propagation. The example will also be used to explain the basic functionalities of BAT.

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