Contribution ID: **46** Type: **not specified**

Robust uncertainty estimation in MC tuning

Monday, 15 July 2019 15:15 (20 minutes)

We propose a robust way of estimating and propagating uncertainties in the "tuning" of Monte Carlo event generator simulations to describe experimental data. This approach enhances the established eigentunes method by using a statistically sound coverage measure rather than an ad hoc tolerance scale to determine the size of parameter variations allowed by the data. The efficacy of the new scheme, and wider reflections on the nature of tuning and MC uncertainties, will be illustrated by application of the Professor tool to toy and real tuning problems.

Summary

We propose a robust way of estimating and propagating uncertainties in the "tuning" of Monte Carlo event generator simulations to experimental data, implemented in the Professor tool.

Primary author: Dr BUCKLEY, Andy (University of Glasgow)

Co-author: SCHULZ, Holger

Presenter: Dr BUCKLEY, Andy (University of Glasgow)

Session Classification: pQCD/MC

Track Classification: PQCD/MC