



Contribution ID: 318

Type: not specified

Latest developments in fastNLO interpolation grids

The fastNLO framework allows to efficiently re-evaluate very time-consuming higher-order calculations in perturbative QCD for different choices of the strong coupling constant and evolution, parton distribution functions, or renormalisation and factorisation scales.

Originally, this technique was developed to permit the inclusion of next-to-leading order jet cross sections into fits of parameters of the standard model. At the time, about 1000 CPU hours were necessary for one such computation. With the advent of many next-to-next-to-leading order (NNLO) results including very recently jets at NNLO, the grid interpolation technique has become even more important to reduce the several 100k hours of CPU time for the NNLO parts by more than 10^9 for a repeated evaluation as required in fits.

We report on our latest results and developments with fastNLO interpolation grids for NNLO calculations.

Primary authors: RABBERTZ, Klaus (KIT - Karlsruhe Institute of Technology (DE)); BRITZGER, Daniel (Deutsches Elektronen-Synchrotron (DE)); Dr STOBBER, Fred (Hamburg University (DE)); SIEBER, Georg (KIT - Karlsruhe Institute of Technology (DE)); WOBISCH, Markus (Louisiana Tech University (US))

Presenter: RABBERTZ, Klaus (KIT - Karlsruhe Institute of Technology (DE))

Session Classification: WG1 Structure Functions and Parton Densities

Track Classification: WG1) Structure Functions and Parton Densities