Particle Theory Seminar

A. Guffanti

U. Freiburg

"Monte Carlo, Neural Networks and Parton Densities: the NNPDF approach to PDF fitting"

Thursday, March 11, 2010, 11:30

WBGB/021

Abstract:

A reliable determination of parton distribution functions and their uncertainties is crucial to fully exploit the physics potential of the LHC experiments. In this talk the NNPDF methodology for PDF determination, based on the use of Monte Carlo techniques and Neural Networks as unbiased interpolants, will be presented. A recently released first unbiased global NLO determination of parton distributions and their uncertainties (NNPDF 2.0) and its phenomenological implications will be discussed in detail.