Contribution ID: 83

Collin-Soper kernel determination in Higgs boson production using PB-TMDs

We will study Higgs boson production at the LHC, specifically its transverse momentum spectrum using PB-TMDs with the CASCADE generator. We will transform the pT spectrum to physical space and determine the Collin-Soper kernel for gluon parton densities, which is sensitive to non-perturbative physics.

Physics / Computing/ Engineering Content of the project : Physics: QCD and parton evolution, Monte Carlo techniques, and simulation of physics processes at the LHC.

Computing: Basic knowledge of Linux is welcome, as well as some basic knowledge of C++/python

Supervisors:

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Field

B1: Particle physics analysis (software-oriented)

DESY Place

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