Contribution ID: **83**   Type: **not specified**

Studies of the proton structure with the xFitter framework

Parton distribution functions (PDFs) are essential to make theoretical predictions for experimental measurements of collider experiments with initial state hadrons. The xFitter project is an open source QCD fit framework ready to extract PDFs and assess the impact of new data.
The student will study constraints of recent LHC data on the proton PDFs and SM parameters by implementing the data and novel theoretical calculations within the xFitter framework. The impact of the data will be studied using various methods, such as profiling and reweighting techniques.

Field

B1: Particle physics analysis (software-oriented)

DESY Place

Hamburg

DESY Division

FH

DESY Group

UNIHH

Special Qualifications:

Basic programming skills in C/C++, Fortran, Python, Bash, Linux.

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