

XXVIII International Workshop on Deep-Inelastic Scattering and Related Subjects



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PDF analysis of Z boson polarisation data from LHC and constraints to Higgs boson production cross section by xFitter

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Recent developments of the xFitter PDF analysis package and studies based on it are summarised. The emphasis is given to the PDF analysis of the Z boson polarisation data which provide additional constraint to the gluon distribution for Bjorken x below 0.1. Studies using pseudo data samples corresponding to an integrated luminosity of the LHC Run 3 and high-luminosity HL-LHC show that the PDF uncertainty of the Higgs boson production cross section can be reduced significantly.

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