

# XXVIII International Workshop on Deep-Inelastic Scattering and Related Subjects



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## Complementarity of Lepton-Charge and Forward-Backward Drell-Yan Asymmetries for Precision Electroweak Measurements and Quark Density Determinations

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Thanks to the large amount of data that is being and will be collected at Run-III and High Luminosity (HL) stage, precision measurements at the LHC are reaching an unprecedented level of statistical accuracy, whilst PDF uncertainties prevail. We study the impact of future measurements of lepton-charge and forward-backward asymmetries on PDF determination. The numerical results have been obtained employing the open-source platform xFitter and standard profiling procedures. We explore the potential of the combination of charged-current and neutral-current Drell-Yan (DY) asymmetries in regions of transverse and invariant masses near the SM gauge bosons peaks to improve the PDF uncertainties.

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