



Contribution ID: 153

Type: **Parallel session talk**

Determination of proton parton distribution functions using ATLAS data

Monday 26 July 2021 17:15 (15 minutes)

We present fits to determine parton distribution functions (PDFs) using inclusive W/Z-boson measurements from the ATLAS experiment at the LHC. The ATLAS measurements are used in combination with deep-inelastic scattering data from HERA. We also present the results of PDF fits that use W/Z+jets measurements from ATLAS in addition to the measurements listed above. An improved determination of the sea-quark densities at high Bjorken, x , is seen, while confirming a strange-quark density similar in size to the up- and down-sea-quark densities in the range $x < 0.02$ found by previous ATLAS analyses. If available, PDF fits including inclusive W and Z boson production, $t\bar{t}$ production, W+jets and Z+jets production, inclusive jet production and direct photon production will also be presented.

First author

Lidija Zivkovic

Email

Lidija.Zivkovic@cern.ch

Collaboration / Activity

ATLAS

Primary authors: COLLABORATION, ATLAS; GWENLAN, Claire (Oxford)**Presenter:** GWENLAN, Claire (Oxford)**Session Classification:** T06: QCD and Hadronic Physics**Track Classification:** QCD and Hadronic Physics