

Determination of the Parton Density Functions of the Proton with the ATLAS data

Tuesday, 28 July 2020 20:30 (15 minutes)

In this talk we present fits to determine parton distribution functions (PDFs) using inclusive W/Z-boson and W+jets measurements from the ATLAS experiment at the LHC. The ATLAS measurements are used in combination with deep-inelastic scattering data from HERA. The ATLAS W and Z boson data exhibit sensitivity to the valence quark distributions and the light quark sea composition. The parton distribution functions extracted using W+jets data show an improved determination of the high-x sea-quark densities, while confirming the unsuppressed strange-quark density at lower $x < 0.02$ found by previous ATLAS analyses.

I read the instructions

Secondary track (number)

Primary author: SUTTON, Mark

Presenter: SUTTON, Mark

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