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Type: **Talk**

Determination of proton parton distribution functions using ATLAS and CMS data

Monday 1 August 2022 17:15 (20 minutes)

We present fits to determine parton distribution functions (PDFs) using a diverse set of measurements from the ATLAS experiment at the LHC, including inclusive W and Z boson production, $t\bar{t}$ production, W+jets and Z+jets production, inclusive jet production and direct photon production. These ATLAS measurements are used in combination with deep-inelastic scattering data from HERA. Particular attention is paid to the correlation of systematic uncertainties within and between the various ATLAS data sets and to the impact of model, theoretical and parameterisation uncertainties.

Preferred track

Hadron Structure

Subfield

HEP experiment

Attending in-person?

Yes

On behalf of collaboration?

ATLAS Collaboration

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Session Classification: Hadron structure 1

Track Classification: Hadron structure