

Contribution ID: 36

Type: Invited Speaker / Conférencier(ère) invité(e)

## Latest jet cross-section measurements by ATLAS

Tuesday, 9 June 2020 15:40 (15 minutes)

Precise measurements of jet cross-sections are crucial in understanding physics at hadron colliders. They probe quantum chromodynamics (QCD), where jets are interpreted as resulting from the fragmentation of quarks and gluons produced in a short-distance scattering process. Jet cross-sections provide valuable information about the strong coupling constant, alpha\_s, and the structure of the proton. In addition, final states with only jets represent a background to many other processes at hadron colliders. The predictive power of fixed-order QCD calculations is therefore relevant in many searches for new physics. The most recent QCD results from the ATLAS Collaboration in proton-proton collisions involving jets in the final state will be summarized. Among others, the measurement of key differential distributions related to gluon splitting to b-quark pairs is presented, along with other measurements that probe a wide range of QCD phenomena and the structure of a jet.

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 Session Classification:
 T-PPD-2 : Energy Frontier | Frontière d'energie

Track Classification: Particle Physics / Physique des particules (PPD)