



Contribution ID: 1166

Type: QCD & EW

Jet and Photon Measurements using the ATLAS detector

Wednesday 26 May 2021 16:30 (15 minutes)

The production of jets and prompt isolated photons at hadron colliders provides stringent tests of perturbative QCD and are sensitive to parton distribution functions in the proton. In this talk we discuss the most recent measurements done using proton-proton collision data collected by the ATLAS experiment at $\sqrt{s}=13$ TeV with full Run-2 dataset. For what concerns measurement with photons, a measurement of photon pair production is presented. For multijet production, we show a measurement of event shape variables calculated using hadronic jets. Measurements of jet production are also sensitive to the strong coupling constant, a measurement extremely sensitive to the strong coupling constant is discussed. Finally, if available new measurements will be shown. All measurements are corrected for detector effects and are compared to the predictions of state-of-the-art Monte Carlo event generators.

Summary

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Session Classification: QCD & EW II