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Measurements of inclusive multi-boson production at ATLAS

Wednesday, July 29, 2020 3:30 PM (25 minutes)

The production of multiple weak vector bosons at the LHC constitutes a stringent test of the electroweak sector and provide a model-independent means to search for new physics at the TeV scale. In this talk, we present the latest results from the ATLAS experiment for multi-boson production in proton-proton collisions at $\sqrt{s}$=13 TeV. The measurements exploit both the leptonic and hadronic decays of the weak vector bosons. Differential cross sections are measured that probe the topology of each final state. The data are corrected for detector inefficiency and resolution and are compared to theoretical predictions at NLO (and NNLO) in perturbative QCD. The measurements are sensitive to anomalous triple gauge couplings and are reinterpreted in terms of an effective field theory to constrain new physics beyond the Standard Model.

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Secondary track (number)

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