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Measurements of multiboson production using the ATLAS detector

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The production of multiple electroweak 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 recent results for inclusive WW, WZ, ZZ and Z γ production in proton-proton collisions at $\sqrt{s}=13$ TeV collected by the ATLAS experiment. The data 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. In addition, the unfolded differential cross section for four-lepton production is presented and compared to state-of-the-art Standard Model calculations. Finally a search for the production of three massive vector bosons in WWW, WWZ and WZZ final states is presented.

Summary

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