

Tests of the electroweak sector with Diboson final states at the ATLAS Experiment

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Measurements of the cross sections of the production of pairs of electroweak gauge bosons at the LHC constitute stringent tests of the electroweak sector and provide model-independent means to search for new physics at the TeV scale. Similarly, the electroweak production of vector bosons in proton-proton collisions tests the gauge structure of the Standard Model. The ATLAS collaboration has performed detailed measurements of integrated and differential cross sections of the production of ZZ di-boson pairs as well as WZ and WW di-boson pairs at 8 and 13 TeV. The results will be presented and compared to predictions at NLO (and NNLO) in pQCD. Constraints on new physics are provided by setting limits on anomalous triple gauge couplings. If available, a measurement of the unfolded 4-lepton mass at 13 TeV will be presented.

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