

New Results on Z Boson Production with the ATLAS Detector

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Precision measurements of the Drell-Yan production of Z bosons at the LHC provide a benchmark of our understanding of perturbative QCD and electroweak processes and probe the proton structure in a unique way. ATLAS performed a measurement of the effective leptonic weak mixing angle using electron and muon pairs from Z boson decay at a center of mass energy of 8 TeV. It consists of a set of measurements of the angular coefficient most sensitive to the weak mixing angle, binned in dilepton mass and rapidity reducing PDF uncertainties on the measurement.

In order to test the electroweak sector with single Z boson final states, ATLAS has published a first measurement of the tau-polarization in Z events as well as the cross-section of the electroweak production of Z bosons at 13 TeV. These results will be presented and discussed.

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