Contribution ID: **73** Type: **not specified**

Electroweak Precision Measurements with the ATLAS Detector

Wednesday 18 April 2018 15:00 (25 minutes)

With the high integrated luminosities recorded at the LHC and the very good understanding of the ATLAS detector, it is possible to measure electroweak observables to the highest precision. In this talk, we review the measurement of the W boson mass using data, collected at 7 TeV. Special focus is drawn on a discussion of the modeling uncertainties and the physics potential of the latest low-mu runs, recorded at a center of mass energy of 5 and 13 TeV at the end of 2017. The talk will also review the measurement of the triple differential Drell-Yan cross-section at 8 TeV, which can be used to extract the weak mixing angle. We conclude with a presentation of the tau polarization, measured in Z->tautau using 20.3/fb of proton proton collision data collected at a center of mass energy of 8 TeV.

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Session Classification: WG4: Hadronic and Electroweak Observables

Track Classification: WG4: Hadronic and Electroweak Observables