



Contribution ID: 61

Type: **not specified**

W/Z boson production in muonic final states at the ATLAS experiment

Thursday, 28 April 2011 17:00 (10 minutes)

W and Z boson production has been investigated by the ATLAS Collaboration in proton-proton collisions at $\sqrt{s} = 7$ TeV. New preliminary precision measurements of the inclusive Drell-Yan cross sections based on the complete data statistics collected in 2010, corresponding to a luminosity of about 35 pb⁻¹, are presented with particular emphasis on the muon decay channels. The accurate control on experimental systematic uncertainties, which are at the percent level, shows advanced understanding of the muon trigger and reconstruction achieved after the first year of data taking at the LHC. The measured W^\pm and Z/γ^* cross sections, and their ratios, are in agreement with NNLO QCD calculations and start to be sensitive to the choice of the parton distribution functions. A measurement of the W^+W^- diboson production cross section is also presented.

Presenter: IPPOLITO, Valerio (ROMA1)

Session Classification: Sessione Dottorandi - II

Track Classification: Dottorandi e Posters