Quark Matter 2018



Contribution ID: 249

Type: Poster

Measurement of Z boson production in Pb+Pb and pp collisions by the ATLAS experiment

Tuesday 15 May 2018 19:10 (30 minutes)

A measurement of Z boson production is performed via leptonic decay channels using data samples from the 2015 LHC run obtained at the center-of-mass energy of $\sqrt{s_{\rm NN}} = 5.02$ TeV with a total integrated luminosity of 0.49 nb⁻¹ and 25.3 pb⁻¹ in Pb+Pb and *pp*, respectively. Integrated and differential cross sections are measured for both electron and muon channels in a fiducial detector acceptance defined by a lepton selection of $p_{\rm T}^\ell > 20$ GeV and $|\eta^\ell| < 2.47(2.5)$ for electrons (muons) with correction for FSR effects. The combined result for both decay channels is compared to NNLO pQCD predictions with different PDF sets calculated with DYNNLO. The large statistical sample of Pb+Pb collisions also allows a high-precision test of the Glauber model.

Content type

Experiment

Collaboration

ATLAS

Centralised submission by Collaboration

Presenter name already specified

Authors: DUMANCIC, Mirta (Weizmann Institute of Science (IL)); WOSIEK, Barbara Krystyna (Institute of Nuclear Physics Polish Academy of Sciences (PL))

Presenter: DUMANCIC, Mirta (Weizmann Institute of Science (IL))

Session Classification: Poster Session

Track Classification: Electromagnetic and weak probes