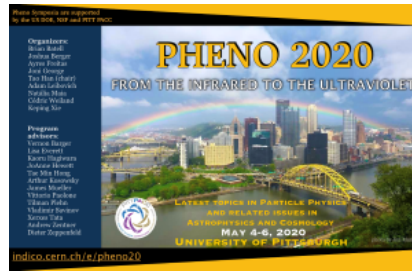


# Phenomenology 2020 Symposium



Contribution ID: 922

Type: **Parallel Talk**

## Precision measurements of W and Z boson production at ATLAS

*Tuesday 5 May 2020 17:30 (15 minutes)*

Precision measurements of the production cross-sections of W/Z boson at LHC provide important tests of perturbative QCD and information about the parton distribution functions for quarks within the proton. In this talk, we present a variety of measurements that probe the production of weak bosons in proton-proton collisions at a variety of collision energies. For inclusive production of W and Z bosons, we present,  $W^+$ ,  $W^-$  and Z boson cross sections at 2.76 TeV as well as precision measurements of the kinematic properties of Drell-Yan lepton pairs produced at a centre-of-mass energy of 13 TeV. In addition, we present recent measurements of Z production in association with hadronic jets at 8TeV as well as the production of Z bosons in association with heavy flavour jets at 13TeV. All of the measurements are corrected for detector inefficiency and resolution and compared with state-of-the-art theoretical calculations.

### Summary

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