

# XXVIII International Workshop on Deep Inelastic Scattering and Related Subjects



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## Measurement of W and Z boson production in association with jets at ATLAS

*Tuesday, March 24, 2020 9:44 AM (22 minutes)*

Measurements of W/Z-boson production in association with jets provide important tests of perturbative QCD prediction and also yield information about the parton distribution functions of the proton. First, differential cross-sections for Z-boson production in association with jets using proton-proton collisions collected by the ATLAS experiment at  $\sqrt{s} = 8$  TeV are presented. The data are compared to next-to-leading order QCD calculations and predictions from a variety of different parton distribution functions. In addition, if available, differential cross sections are presented for Z-boson production in association with heavy-flavour jets at  $\sqrt{s} = 13$  TeV. The data are compared to theoretical predictions provided by various Monte Carlo event generators. Finally, if available, an analysis on final states with large missing transverse momentum in association with at least one energetic jet, dominated by processes like Z boson decaying into two neutrinos and W boson decaying leptonically associated with jets, at  $\sqrt{s} = 13$  TeV will be presented.

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