## Phenomenology 2018 Symposium



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## Single Top quark production cross-section measurements using the ATLAS detector at the LHC

Monday 7 May 2018 15:00 (15 minutes)

Measurements of single top-quark production in proton-proton collisions are presented based on the 13 TeV and 8 TeV ATLAS datasets. In the leading order process, a W-boson is exchanged in the t-channel. The cross-section for the production of single top-quarks and single antitop-quarks, their ratio, as well as differential cross-section measurements are also reported. Measurements of the inclusive and differential cross-sections for the production of a single top quark in association with a W-boson, the second largest single top production mode are also presented. Evidence for the s-channel single top-quark production in the 8 TeV dataset is presented. Finally, the first measurement of the tZq electroweak production is presented. All measurements are compared to state-of-the art theoretical calculations. (On behalf of the ATLAS collaboration)

Summary

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