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

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Measurements of single topquark production in proton proton collisions are presented. The measurements include the first
such measurements from the 13 TeV ATLAS dataset. In the leading order process, a W boson is exchanged in the tchannel.
The single topquark and antitop total production cross sections, their ratio, as well as a measurement of the inclusive
production cross section is presented. At 8 TeV, differential crosssection measurements of the tchannel process are also
presented, these measurements include limits on anomalous contributions to the Wtb vertex. A measurement of the production
cross section of a single top quark in association with a W boson, the second largest singletop production mode, is also presented.
Finally, evidence for singletop production in the 8 TeV ATLAS dataset is presented. All measurements are compared to stateof
theart theoretical calculations.

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