

Search for top quark FCNC interactions at ATLAS

The large dataset collected by the ATLAS detector at allows to probe the presence of new physics that could enhance the rate of rare processes in the SM. The LHC can therefore gain considerable sensitivity for Flavour Changing Neutral Current (FCNC) interactions of the top quark. The ATLAS experiment has performed searches for FCNC couplings of the top quark with a photon, gluon, Z boson or Higgs boson. In this report, the most recent results are presented, which include the complete data set of 139/fb at 13 TeV during run 2 (2015-2018). The large data set, together with improvements in the analysis, yields a strong improvement of the expected sensitivity compared to previous experiments.

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