

# Top quark properties and mass measurements with the ATLAS detector

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The top quark is unique among the known quarks in that it decays before it has an opportunity to form hadronic bound states. This makes measurements of its properties particularly interesting as one can access directly the properties of a bare quark. The latest measurements of these properties with the ATLAS detector at the LHC are presented using 8 TeV and 13 TeV data. Limits on the rate of flavour changing neutral currents in the production or decay of the top quark are also reported. The production of top-quark pairs in association with W and Z bosons and with photons are also presented. These processes are all compared to the best available theoretical calculations. The latest ATLAS measurements of the top quark mass in lepton+jets, dilepton, and all-hadronic final states are also reported. In addition, measurements aiming to measure the mass in a well-defined scheme are presented.

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