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Recent highlights of top-quark cross section and properties measurements with the ATLAS detector at the LHC

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The remarkably large dataset collected with the ATLAS detector at the highest proton-proton collision energy provided by LHC allows to use the large sample of top quark events to test theoretical predictions with unprecedented precision. Recent measurements of total and differential top-quark cross sections as well properties of top-quark production are presented, including new measurements of top-quark pair production and single-top production at 5 and 13 TeV as well as first measurement of the 13.6 TeV cross-section of ttbar events. Further highlights are the new measurements of angular properties such as the W-boson polarisation in ttbar events, new top-quark mass measurements as well as distributions sensitive to colour reconnection. Several measurements are interpreted within the Standard Model Effective Field Theory, yielding stringent bounds on Wilson coefficients.

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