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## Measurements of top quark pair production cross sections with the ATLAS detector at the LHC

*Monday 26 July 2021 14:15 (15 minutes)*

Comprehensive measurements of inclusive and differential cross-sections for top-quark production are presented. The cross section for production of top-quark-antiquark pair is measured in the dilepton, lepton+jets and all-hadronic channels as function of kinematic properties the top quarks and of their final decay products, also including final states featuring top quarks with high transverse momenta compared to the top quark mass.

Measurements use data from LHC proton-proton collisions recorded during the entire Run2 at both 13 and 5 TeV center-of-mass energy.

The differential measurements are compared quantitatively to several setups of next-to-leading order matrix-element generators combined with parton-shower generators.

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### Collaboration / Activity

ATLAS

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