



Contribution ID: 26

Type: **not specified**

## Top quark physics results from CMS

Recent results on top quark properties and interactions are presented, obtained using data collected with the CMS experiment during LHC Run 2 and Run 3 at 13 and 13.6 TeV center-of-mass energies, respectively. Measurements are performed for the inclusive and differential top quark pair production cross sections in several top quark final states. The mass of the top quark is extracted using several methods, including indirect constraints from the measured cross section. Cross sections for the electroweak production of single top quarks in both t-channel and tW associated production are measured, and limits are set on s-channel production. Further results include measurements of top quark properties, such as the W helicity in top decays, the top pair charge asymmetry, the top quark polarization and spin correlation, as well as the search for anomalous couplings in both pair and single top-quark production. Rare processes, such as tt and single top production associated with W, Z and gamma, are explored. The results are compared with predictions from the standard model.

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