

Measurements of the top quark properties with CMS

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Several measurements of top quark properties are presented using data collected by the CMS experiment at different centre-of-mass-energies. The properties are mostly probed in production of the top quarks. The charge asymmetry is measured inclusively and differentially probing anomalous couplings to the gluons at production mode. These measurements are extended searching for asymmetries in CP-odd operators in production and decay. The measurement of the spin density matrix in different final states (lepton+jets and dileptons) is discussed as well as the measurement of the top quark polarization in single top and $t\bar{t}$ events. The results are compared to the state-of-the-art predictions, when available, and re-interpreted as searches for new physics inducing deviations from the standard model predictions.

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