

# Top quark pair production cross section at CMS

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Precision measurements are presented of the top-pair production cross section in proton-proton collisions at the LHC at a centre-of-mass energies of 7 and 8 TeV. The data are collected with the CMS experiment in 2011 and 2012. The measurements are performed in several decay channels, the lepton+jets, the dilepton and the fully hadronic channels, including the tau-dilepton and tau+jets modes. B-jet identification is used to increase the purity of the selection. The backgrounds are determined using data-driven techniques. The results are combined with each other and compared with theory predictions.

**Primary author:** Dr COSTANTINI, Silvia (University of Ghent)

**Presenter:** Dr COSTANTINI, Silvia (University of Ghent)

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