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Measurement of top quark differential cross sections at $\sqrt{s} = 7$ TeV

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We present measurements of various differential cross sections in top pair production in proton-proton collisions at the LHC at a centre-of-mass energy of 7 TeV. The data are collected by the CMS experiment during the year 2011. Cross sections are measured differentially as a function of various variables, including the transverse momentum and rapidity of the (anti)top quark as well as the top-antitop system, as well as multiplicity and transverse momenta of jets produced in addition to the top pair. The cross sections are corrected for detector effects to the level of stable particles. The results are compared with various Monte Carlo models, as well as with theory predictions. The overall consistency of the features of top pair production with expectations from the standard model is investigated.

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Collaboration Name **Please enter the name of the collaboration or group using the acronym, as in: ABC Collaboration**

CMS Collaboration

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