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## Top quark study at CMS

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The top quark is a fundamental building block of the standard model. Due to the large cross section, top-antitop pairs will be copiously produced in high energy proton-proton collisions at the Large Hadron Collider (LHC). We present the first results of a selection of top-quark pair production events in the dilepton channel, where both W-bosons from the top quarks decay leptonically into either an electron or a muon, plus a neutrino. We use LHC collision data at 7 TeV centre-of-mass energy collected with the CMS experiment during the period of April to July 2010. Events with two isolated, prompt leptons with high energy, at least two jets with high transverse momentum, and significant missing transverse energy are selected. Several background contributions from other standard model processes, most importantly Drell-Yan and W+jets, are estimated in a data-driven way. Results obtained from data are compared with the simulation, indicating the status of the analysis towards a first cross section measurement in this channel at  $\sqrt{s} = 7$  TeV. Similarly, first results are reported for the lepton+jets channel, where one W-boson from the top decays leptonically into a muon (or electron) and a neutrino, while the other one decays into a quark-antiquark pair.

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