

Abstract Submitted
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Measurement of the cross section of top quark pairs in association with a photon in lepton+jets events at $\sqrt{s} = 13$ TeV TITAS ROY, Florida Inst of Tech, CMS COLLABORATION — The production cross section of a top quark pair plus a radiated photon is measured during proton-proton collisions at the centre of mass energy of 13 TeV corresponding to an integrated luminosity of 35.86 fb^{-1} at the LHC, at CERN. The data was recorded by the Compact Muon Solenoid experiment. The signal region is defined by top quark pairs, an isolated lepton, photon, jets from the hadronization of quarks, and missing transverse energy. The photons may be emitted directly from initial state radiation, top quarks as well as from its decay products. An important part of the analysis is calculation of photon purity and photon identification efficiency, which are done using data-driven methods and MC simulation.

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