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Evidence for associated production of a single top quark and W boson from CMS DANIEL NOONAN, University of Kansas, CMS COLLABORATION — Evidence is presented for the associated production of a single top quark and W boson in pp collisions at $\sqrt{s} = 7$ TeV with the CMS experiment at the LHC. The analyzed data corresponds to an integrated luminosity of 4.9 fb^{-1}. The measurement is performed using events with two leptons and a jet originated from a b quark. A multivariate analysis based on kinematic properties is utilized to separate the tt background from the signal. The observed signal has a significance of 4.0 σ and corresponds to a cross section of 16^{+5}_{-4} pb, in agreement with the standard model expectation of $15.6 \pm 0.4^{+1.0}_{-1.2}$ pb.

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