Search for associated production of a single top quark with a W boson DANIEL NOONAN, University of Kansas, CMS COLLABORATION — A search for the production of a single top quark in association with a W boson in pp collisions using data collected with the CMS experiment at the LHC is presented. The analysis looks for the tW production decaying into a dilepton final state using a multivariate analysis to separate the signal from the tt̄ background. Evidence is presented based on data collected at a center of mass energy of √s = 7 TeV during 2011, and at √s = 8 TeV during 2012.