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Search for heavy Majorana neutrinos in same-sign dilepton final states in pp collisions at $\sqrt{s}$= 8 TeV with CMS detector EMRAH TIRAS, University of Iowa, CMS COLLABORATION — With the discovery of neutrino oscillations, the non-zero mass of the neutrinos has been confirmed. With this confirmation, a search for a mechanism to explain the non-zero mass of neutrinos has become popular among particle collision experiments such as the Large Hadron Collider (LHC) at CERN, the world's largest particle accelerator. The Compact Muon Solenoid (CMS), one of the general-purpose detectors of the LHC, is gathering data to measure the energies of the particles such as hadrons, leptons, jets, and photons produced by the proton-proton collisions at very high energies. In this presentation, we briefly explain the current status of a search for heavy Majorana neutrinos, one possible mechanism to explain the massive nature of the known neutrinos. The data used in this analysis correspond to an integrated luminosity of 19.7 fb^{-1} of pp collisions at a center of mass energy of 8 TeV, comes from the data collected with the CMS detector during the 2012 operation of the LHC. In this work, the same sign leptons are found with the decay products of an accompanying W boson. Specifically W decays into two jets are considered.

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