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Search for Supersymmetry with Vector Boson Fusion-like Topology ALI CELIK, Texas AM University, CMS COLLABORATION — A search of supersymmetry (SUSY) with two jets in vector-boson fusion (VBF) topology is presented using data collected by the CMS detector in proton-proton collisions at the LHC. Final states containing at least one low energy lepton are expected in SUSY compressed mass spectra for pair production of charginos and neutralinos. The standard model backgrounds are reduced by requiring a presence of missing energy and two jets with large rapidity separation expected in VBF topology. The final state without leptons in VBF dijet + MET topology provides a stringent limit on squark mass in the compressed mass scenario. We will show results from zero and dilepton final states at 8 TeV and single lepton study at 13 TeV.

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