

Abstract Submitted
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Search for Natural GMSB in Top Quark Pair + Photons Events

BRIAN FRANCIS, University of Virginia, CMS COLLABORATION — We present a search for Gauge Mediated Supersymmetry Breaking (GMSB) with the stop squark as the lightest squark/gluino and the gravitino as the lightest supersymmetric particle. The strong production of pairs of stop squarks and their decays would produce events with top quark pairs and pairs of neutralinos, each decaying to photons and gravitinos. This search is performed in 19.7 fb^{-1} of proton-proton collision data at $\sqrt{s} = 8 \text{ TeV}$ in the electron+jets and muon+jets channel. We compare the missing transverse energy of these events against the expected spectrum of Standard Model processes.

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