

Abstract Submitted
for the APR16 Meeting of
The American Physical Society

Search for supersymmetry in the multijet and missing transverse momentum channel in pp collisions at 13 TeV: Z + jets background TROY MULHOLLAND, University of Colorado Boulder, CMS COLLABORATION — We present a search for supersymmetry (SUSY) with data collected from the Compact Muon Solenoid (CMS) detector. The sample corresponds to 2.3 fb^{-1} of proton-proton collisions with $\sqrt{s} = 13 \text{ TeV}$ delivered by the Large Hadron Collider (LHC). The search looks at events with large hadronic activity, missing transverse energy, and without any identified leptons. The data are analyzed in bins of jet multiplicity, bottom-quark tagged jet (b-jet) multiplicity, scalar sum of jet transverse momentum, and vector sum of jet transverse momentum. A standard model (SM) background to this search includes the SM production of multiple jets and a Z boson that decays to two undetectable neutrinos. This talk focuses on the measurement of this particular background and its context in the wider search. Observations are consistent with SM backgrounds and limits are set on gluino mediated simplified SUSY models.

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Date submitted: 08 Jan 2016

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