

Abstract Submitted
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Search for Non-thermal Dark Matter in Monojet Events in Proton-Proton Collisions at $\sqrt{s} = 13$ TeV SONAINA UNDLLEEB, Texas Tech University, CMS COLLABORATION — We will present a search for dark matter in events with one or more jets and large missing transverse energy using proton-proton collisions at center-of-mass energy of 13 TeV. The data was collected in 2016 by the Compact Muon Solenoid (CMS) detector at the Large Hadron Collider (LHC) corresponding to an integrated luminosity of 35.9 fb^{-1} . The results are interpreted in terms of Light Non-thermal dark matter model which explains presence of dark matter as well as baryon asymmetry in the universe. Model independent limit on narrow resonance is also obtained for monojet dominant coupling parameter space. There is no evidence for an excess of events above the background processes in the signal region, therefore cross section limits are set for different mediator masses.

Sonaina Undleeb
Texas Tech Univ

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