

Abstract Submitted
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Search for SUSY in events with a single lepton, jets, and missing transverse momentum using a neural net approach AVISHEK CHATTERJEE, Cornell University, CMS COLLABORATION — Supersymmetry is searched for in proton-proton collisions at $\sqrt{s} = 7$ TeV using events with a single isolated lepton, energetic jets, and large missing transverse momentum. The analyzed data, which were recorded in the CMS detector at the LHC, correspond to a total integrated luminosity of 4.7 fb^{-1} . The search uses a multivariate analysis technique based on neural networks to suppress Standard Model backgrounds, and estimates residual backgrounds using a fully data-driven method. The analysis is performed in both the muon and electron channels, and the combined result is interpreted in the framework of the CMSSM parameter space.

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