

Abstract Submitted
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Search for Multiply-Charged Heavy Stable Charged Particles at CMS VENKATESH VEERARAGHAVAN, Florida State University, CMS COLLABORATION — We present searches for heavy, long-lived particles with charge $\pm Ne$ ($N > 1$) in proton-proton collisions at a center of mass energy of 7 TeV at the Large Hadron Collider (LHC) using data collected with the Compact Muon Solenoid (CMS) detector. We consider a stable, multiply-charged fermion produced via the Drell-Yan process as our signal. The slow velocity and large charge of such particles yields an unambiguously amplified ionisation energy loss. Velocity measurement is made using the muon system and the energy deposition in the inner tracker is used to compute the average energy loss per path length. We present results from the 2011 run of the LHC.

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