

Abstract Submitted  
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**Identification of Heavy Stable Charged Particles at the CMS Experiment** SETH COOPER, University of Minnesota, CMS COLLABORATION — Heavy Stable Charged Particles (HSCPs) are predicted by a number of different supersymmetric models, and would be observable using the Compact Muon Solenoid (CMS) detector at the Large Hadron Collider (LHC). An HSCP produced at the LHC would have momentum on the order of several hundred GeV, but would travel slowly because of its large mass. This makes it possible to obtain the mass of an HSCP using velocity measurements from the silicon tracker, muon drift tubes, muon cathode strip chambers, and/or the electromagnetic calorimeter. Two methods of determining the velocity of an HSCP will be discussed:  $dE/dx$  measurement and time-of-flight analysis.

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