

Abstract Submitted
for the APR10 Meeting of
The American Physical Society

Search for Stopped Gluinos during Beam-off Periods at CMS

KENNETH ROSSATO, University of Maryland, CMS COLLABORATION — Several models of new physics, including split supersymmetry, predict the existence of a heavy particle which is long-lived on timescales of the bunch spacing of the LHC. Such particles may be slowed through dE/dx losses and stop in the volume of the CMS detector before ultimately decaying. We describe a search strategy that employs a special jet trigger to look for energy depositions in the hadronic calorimeter during time periods without pp collisions. We examine the potential for discovery and exclusion of gluinos in split supersymmetry in early running of the LHC.

Sarah Eno
University of Maryland

Date submitted: 19 Oct 2009

Electronic form version 1.4