

TUESDAY

MARCH 1

4:00 P.M.

RM 415 NSH

A search for supersymmetry in the all-hadronic final state with 13 TeV pp collisions at CMS

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2015 was a landmark year for the LHC with the first 13 TeV collision. The increased collision energy dramatically increases the discovery potential for new high mass particles. A search for events with high jet multiplicities and missing energy signatures using 2.3/fb of data collected by the Compact Muon Solenoid will be presented. Events are characterized in terms of both light and heavy flavor jet multiplicities and both visible and invisible energy metrics. Interpretations of the data are carried out using a set of simplified models in which gluinos are pair-produced and decay in various ways. While no significant excess has been observed, this search has already outpaced the sensitivity to pair-produced gluinos from the 8 TeV run.