ID de Contribution: **164** Type: **Poster**

Inclusive Search for Squarks and Gluinos using the Razor Kinematic Variable

We search for heavy particles pair produced in 7 TeV proton-proton collisions with data collected by the CMS detector in 2011 at the CERN Large Hadron Collider. The search is sensitive to generic SUSY models provided superpartner particles are kinematically accessible, with minimal assumptions on properties of the Lightest Superpartner Particle (LSP). The baseline selection is inclusive requiring only two or more reconstructed jets. We test the kinematic consistency of the selected events with the hypothesis of heavy particle pair production using the dimensionless razor (R) variable. After rigorous data-driven background modeling and background rejection based on R, the new physics signal is characterized by a broad peak in the distribution of MR, where MR is an event-by-event indicator of the heavy particle scale. The results are interpreted in the light of the constrained minimal supersymmetric extension of the standard model as well as the more generic Simplified Model Spectra (SMS).

Auteur principal: Dr KRAMMER, Manfred (HEPHY, Vienna)

Orateur: MOTT, Alex