Contribution ID: **64** Type: **Talk (closed)**

Searches for 3rd generation squarks with CMS

Monday 23 July 2018 16:40 (20 minutes)

The accumulation of 36fb-1 of data at 13 TeV has been a unique window for supersymmetry searches at the LHC, allowing the CMS collaboration to search for specific supersymmetric particles. This talk covers searches of supersymmetric particles of 3rd generation squarks, which might be the only sparticles produced at the LHC, other sparticles being too heavy. It will highlight “compressed scenarios”, which are preferred by cosmological observations, and where the small mass difference between the searched sparticle and the lightest supersymmetric particle limits the available phase-space, rendering these promising searches challenging. State-of-the-art approaches such as multivariate tools will be presented, not only for the selection of the signal but also for the prediction of the background.

Parallel Session

Supersymmetry: Models, Phenomenology and Experimental Results

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Session Classification: Supersymmetry: Models, Phenomenology and Experimental Results