Type: Exotic Searches at Colliders

Searches for electroweak production of supersymmetric particles with the ATLAS detector

The direct production of electroweak SUSY particles, including sleptons, charginos, and neutralinos, is a particularly interesting area with connections to dark matter and the naturalness of the Higgs mass. The small production cross-sections and challenging experimental signatures, often involving compressed spectra, lead to difficult searches. This talk will highlight the most recent results of searches performed by the ATLAS experiment for supersymmetric particles produced via electroweak processes, including analyses targeting small mass splittings between SUSY particles, and including both in R-parity-conserving and R-parity-violating scenarios. Recent results involving the combination of searches are also presented.

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