

# Innovative Strategies in the Search for Electroweak Production of Compressed SUSY States with the ATLAS Detector

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The search for electroweakinos and sleptons is a key component of the supersymmetry program at the LHC. In particular, natural SUSY models motivate small mass splittings between the lightest charginos and neutralinos, known as a compressed mass spectrum. Such a scenario presents several experimental challenges, since the decay products are very soft and there is little final state missing energy. In order to build a sensitive analysis around these difficulties, a variety of new techniques are applied, including improvements with ISR-assisted topologies and lepton reconstruction. Here, some of these new strategies are described, and recent results from the search using data at  $\sqrt{s} = 13$  TeV from the ATLAS detector are presented.

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