

Search for electroweak production of supersymmetric states in scenarios with compressed mass spectra at $\sqrt{s}=13$ TeV with ATLAS

Thursday, April 5, 2018 5:00 PM (15 minutes)

Dark matter coannihilation via species with only electroweak interactions is generically realised in the MSSM. Key benchmarks include a Higgsino-dominated LSP, or a bino LSP coannihilating with winos or sleptons that are nearby in mass. Hadron collider probes of these compressed scenarios are only recently surpassing nearly two-decade-old LEP limits. A search strategy is presented that opens new sensitivity to these challenging regimes using an ISR boost and soft lepton reconstruction down to 4 GeV - among the lowest used by ATLAS.

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