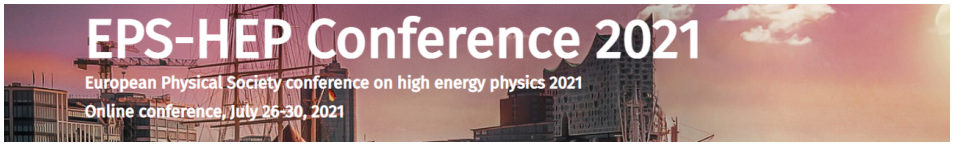

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Searches for electroweak production of supersymmetric particles with the ATLAS detector

Monday 26 July 2021 10:30 (15 minutes)

The direct production of electroweak SUSY particles, including sleptons, charginos, and neutralinos, is a particularly interesting area of search at the LHC, as considerations on dark matter and the naturalness of the Higgs mass motivate the existence of light electroweakinos. The small production cross sections lead to difficult searches, despite relatively clean final states. 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, with a focus on searches that target models on which R-parity is conserved. Sophisticated analysis techniques, including machine learning, are employed to increase the sensitivity for these processes.

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Collaboration / Activity

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