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## Search for direct stau production with the ATLAS detector

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Supersymmetry (SUSY) is a promising extension of the SM of particle physics. If the chargino and neutralinos are to heavy to be produced, the direct slepton production will be dominant at LHC. Co-annihilation processes favour a light stau that has a small mass splitting with a bino LSP, which can provide a relic density similar current dark matter cosmological observations. This talk gives a brief introduction of searching for the direct stau production using 13 TeV 128 fb-1 ATLAS data collected from 2015 to 2018 and the prospect of searching at the high luminosity LHC with the ATLAS Detector.

## Type

Parallel talk

## Sessions (parallel only)

Beyond Stand Model

Primary author: ZHU, ChenZheng (S)

**Presenter:** ZHU, ChenZheng (S)

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