

## ATLAS searches for supersymmetry with tau leptons

Searches for supersymmetry (SUSY) involving scalar tau leptons (staus) are interesting analyses, well motivated by naturalness and dark matter arguments, for example in coannihilation models. In this talk, an overview of the most recent ATLAS searches using the full Run2 dataset which look for either direct production of staus or production of supersymmetric particles which are assumed to decay through staus is presented. The decays of scalar tau leptons to their Standard Model partners lead to challenging experimental signatures, requiring dedicated reconstruction algorithms. Searches in final states with tau leptons, complementing searches for light leptons or hadronic decays, are also considered.

### What is your topic?

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**Session Classification:** Poster session: Breakout room 5

**Track Classification:** Tau2021 Abstracts