

## Neutralino Search in ATLAS

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The lightest neutralino, as the best known supersymmetric (SUSY) WIMP, obtains the required dark matter relic abundance. The searches of lightest neutralino in various SUSY production programs are conducted by the ATLAS experiment. The latest results will be presented. Additionally, the results are interpreted in the context of the 19-parameter phenomenological minimal supersymmetric standard model, where R-parity conservation is assumed and the lightest supersymmetric particle is assumed to be the lightest neutralino. Constraints from previous electroweak, flavour and dark matter related measurements are also considered. The impact of ATLAS searches on parameters such as the dark matter relic density and the spin-dependent and spin-independent scattering cross-sections targeted by direct dark matter detection experiments is shown.

### Collaboration (if any)

**Primary author:** XU, Da (IHEP, CAS)

**Presenter:** XU, Da (IHEP, CAS)

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