



# LHC Seminar

SPEAKER: Jeanette Miriam Lorenz

TITLE: **Constraining natural supersymmetry with the ATLAS detector**

DATE: 18 Feb 2020, 11:00

PLACE: 503/1-001 - Council Chamber

## ABSTRACT

Naturalness arguments for weak-scale supersymmetry favour supersymmetric partners of the third generation quarks and gluons with masses not too far from the TeV scale. Under this paradigm, production cross-sections for squarks and gluinos can be significant. This seminar will present results from recent searches for strongly produced supersymmetric particles, exploiting novel experimental techniques that probe new regions of phase space. The results of the searches are interpreted as constraints on a variety of SUSY models, exploiting 139 fb<sup>-1</sup> of pp collision data collected with the ATLAS experiment in Run 2 at the LHC.