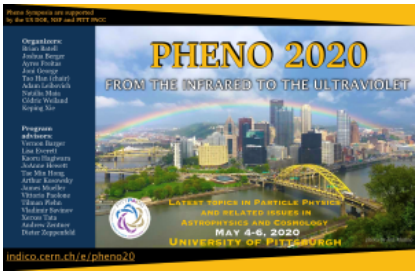

Contribution ID: **920** Type: **Parallel Talk**

Searches for strong production of supersymmetric particles with the ATLAS detector

Monday 4 May 2020 14:15 (15 minutes)

Supersymmetry (SUSY) provides elegant solutions to several problems in the Standard Model, and searches for SUSY particles are an important component of the LHC physics program. Naturalness arguments for weak-scale supersymmetry favour supersymmetric partners of the gluons and third generation quarks with masses light enough to be produced at the LHC. This talk will present the latest results of searches conducted by the ATLAS experiment which target gluino and squark production, in a variety of decay modes, with final states including jets, leptons, and missing transverse momentum. It covers both R-parity conserving models that predict dark matter candidates and R-parity violating models that typically lead to high-multiplicity final states without large missing transverse momentum, and includes results which use new techniques to target compressed regions which have historically been difficult to access due to small mass splittings between SUSY particles.

Summary

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