Contribution ID: **390** Type: **Parallel**

Searches for strong production of supersymmetric particles with the ATLAS detector

Monday 7 July 2025 10:15 (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 favour supersymmetric partners of the gluons and third-generation quarks with masses light enough to be produced at the LHC. With increasing mass bounds on more classical MSSM scenarios other variations of supersymmetry, including non-minimal particle content, become increasingly interesting. This talk will present the latest results of searches conducted by the ATLAS experiment which target gluino and squark production, including stop and sbottom, in a variety of decay modes. Recent interpretations in the context of the pMSSM are also presented.

Secondary track

Authors: COLLABORATION, ATLAS; YUAN, Jiarong (Institute of high energy physics, Beijing)

Presenter: YUAN, Jiarong (Institute of high energy physics, Beijing)

Session Classification: T09

Track Classification: T09 - Beyond the Standard Model