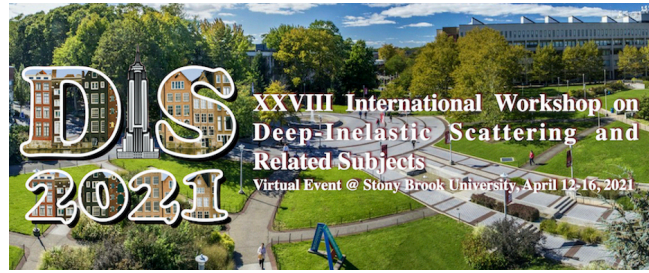


XXVIII International Workshop on Deep-Inelastic Scattering and Related Subjects



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Type: **Contributed Talk**

Searches for supersymmetry with the ATLAS detector

Thursday, 15 April 2021 11:12 (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. Moreover, the direct production of electroweak SUSY particles, including sleptons, charginos, and neutralinos, is a particularly interesting area with connections to dark matter and the naturalness of the Higgs mass. This talk will highlight the latest results of searches conducted by the ATLAS experiment which target supersymmetric particles produced via both strong and electroweak processes in R-parity conserving scenarios, including a discussion of new techniques to target compressed regions which have historically been difficult to access due to small mass splittings between SUSY particles.

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Session Classification: Electroweak Physics and Beyond the Standard Model

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