Contribution ID : **727** Type : **Poster**

Search for electroweak production of charginos and neutralinos in multileptonic final states with the ATLAS experiment

Monday, 5 October 2020 19:45 (15)

Supersymmetry, or SUSY, is one of the proposed extensions of the Standard Model which represents a solution to some of the limitations of the latter, such as the hierarchy problem. It introduces new particle states which may be produced at the ATLAS experiment taking data at sqrt(s)=13 TeV at the Large Hadron Collider (LHC). Due to existing constraints on the value of the masses of strongly coupled SUSY particles, the electroweak production of weakly interacting sparticles may become the key mechanism to search for beyond-the-Standard-Model physics at the LHC. A search for electroweak production of charginos and neutralinos decaying to multileptonic final states using Run-2 data collected with the ATLAS experiment is presented. Results are interpreted is the context of simplified models in which charginos and neutralinos undergo R-parity-conserving decays via intermediate production of gauge and Higgs bosons.

Primary author(s) : APARO, Marco (University of Sussex (GB)); COLLABORATION, ATLAS

Presenter(s) : APARO, Marco (University of Sussex (GB))

Session Classification : Poster session

Track Classification : High energy physics