



Canadian Association
of Physicists

Association canadienne
des physiciens et physiciennes

Contribution ID: 34

Type: **Invited Speaker / Conférencier(ère) invité(e)**

Search for Supersymmetry with missing transverse momentum and multiple b-jets

Tuesday, 9 June 2020 15:10 (15 minutes)

A search for supersymmetry involving the pair production of gluinos decaying via third-generation squarks into the lightest neutralino ($\tilde{\chi}_1^0$) is performed. The final state contains large missing transverse momentum, leptons, and several energetic jets (including at least three b -tagged jets). This presentation summarizes the recent ATLAS result on this search which was performed with the LHC pp collision data at a center-of-mass energy $\sqrt{s} = 13$ TeV, with an integrated luminosity of 139 fb^{-1} . No significant excess of events above the Standard Model expectation is observed in any of the search regions, and the results are used to set upper limits on the production of supersymmetric particles. The search excludes at 95% confidence level gluino masses up to 2.5 TeV and neutralino masses below 800 GeV.

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Session Classification: T-PPD-2 : Energy Frontier | Frontière d'énergie

Track Classification: Particle Physics / Physique des particules (PPD)