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Search for supersymmetric gauginos and third generation squarks with the ATLAS detector

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Naturalness arguments for weak-scale supersymmetry favour supersymmetric partners of the Higgs and electroweak gauge bosons and third generation quarks with masses not too far from those of their Standard Model counterparts. Gauginos and scalar top or bottom quarks with masses less than a few hundred GeV can give rise to direct pair production rates at the LHC that can be observed in the data sample recorded by the ATLAS detector. The production of third generation squarks via decay of a gluino can also be significant if the mass of the gluino does not exceed the TeV scale. The talk presents results from searches for stop, sbottom and gaugino production using the full data sample (5 fb⁻¹) recorded in 2011 at $\sqrt{s} = 7$ TeV centre-of-mass energy by the ATLAS experiment at the LHC.

Collaboration Name
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