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Search for direct scalar top production with R-Parity Violating decay in pp collisions at $\sqrt{s}=8$ TeV with ATLAS

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A search is presented for direct scalar top pair production, where the scalar tops decay via an R-parity-violating coupling to a final state with two leptons and two identified b jets. The analysis uses 20.3 fb^{-1} of $\sqrt{s}=8$ TeV proton-proton collision data collected with the ATLAS detector at the LHC. No significant excess is observed over the Standard Model background. Assuming a supersymmetric minimal B-L extension to the Standard Model, limits on the scalar top mass are placed between 500 GeV and 1 TeV with a branching fraction above 20% for the scalar top to decay to an electron or a muon and a b-quark.

Oral or Poster Presentation

Oral

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