



MEETING OF THE AMERICAN PHYSICAL SOCIETY DIVISION OF PARTICLES AND FIELDS

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## **A search for B-L R-parity-violating scalar top decays in $\sqrt{s}=13$ TeV pp collisions with the ATLAS experiment**

*Wednesday, August 2, 2017 11:30 AM (15 minutes)*

A search is presented for the direct pair production of scalar tops, which decay through an R-parity-violating coupling to a final state with two leptons and two jets, at least one of which is identified as a b-jet. The dataset consists of an integrated luminosity of  $36 \text{ fb}^{-1}$  of proton-proton collisions at a center-of-mass energy of  $\sqrt{s}=13$  TeV, collected over 2015 and 2016 by the ATLAS detector at the LHC. No significant excess over the Standard Model expectation is observed and 95% confidence-level limits are set for various branching fractions of the scalar top decay to an electron, muon, or tau with a b-quark.

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