

Abstract Submitted
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Search for Lepton Flavor Violation in the $e\mu$ Continuum with the ATLAS detector DANIEL POMEROY, Brandeis University, ATLAS COLLABORATION — We present a search for the t -channel exchange of a lepton flavor violating scalar top quark in the $e\mu$ continuum using 2.08 fb^{-1} of data collected by the ATLAS detector in $\sqrt{s} = 7 \text{ TeV}$ pp collisions at the LHC from March to June 2011. Data are found to be consistent with the standard model background. The 95% CL upper limits on the production cross section of the scalar top quark are set. The observed cross section limit extends from 150 fb for $M_{\tilde{t}} = 95 \text{ GeV}$ to 80 fb for $M_{\tilde{t}} = 225 \text{ GeV}$. In addition, limits on the sum of R-parity violating coupling constants are calculated as a function of scalar top mass.

Daniel Pomeroy
Brandeis University

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