

Abstract Submitted  
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**Search for a Heavy Resonance Decaying into an e mu Pair at  
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We present a search for a heavy resonance decaying into an e-mu final state using  
35 pb<sup>-1</sup> of data collected by the ATLAS detector at the LHC in pp collisions at  
7 TeV. The number of observed e-mu events in data is compared to the Standard  
Model predictions. We interpret the results in terms of the production of both R-  
parity violating (RPV) sneutrinos and Lepton Flavor Violating Z'. We present direct  
bounds on the RPV and LFV couplings as a function of the sneutrino and Z' masses.

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