

Abstract Submitted  
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**Search for high-mass resonances decaying to lepton pairs with the ATLAS detector**<sup>1</sup> SIMON VIEL, University of British Columbia / TRIUMF, ATLAS COLLABORATION — We present a search for high-mass  $\ell^+\ell^-$  resonances in  $pp$  collisions at a centre-of-mass energy of 7 TeV recorded by the ATLAS experiment in 2011. No statistically significant excess above the Standard Model expectation is observed in a dataset corresponding to an integrated luminosity of approximately 5 fb<sup>-1</sup>. Consequently, upper limits are set on the cross-section times branching ratio of resonances decaying to muon pairs as a function of the resonance mass. In particular, a Sequential Standard Model  $Z'$  is excluded for masses below 2.22 TeV, and a Randall-Sundrum Kaluza-Klein graviton with coupling  $k/\overline{M}_{Pl} = 0.1$  is excluded for masses below 2.16 TeV, both at the 95% C.L. Results using data recorded by the ATLAS experiment in 2012 at a centre-of-mass energy of 8 TeV will also be presented.

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