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WW and WZ resonance search in the fully leptonic channel LULU LIU, University of Michigan, ATLAS COLLABORATION — Heavy particles that can decay to gauge boson pairs are predicted in many scenarios of physics beyond the SM, including the extended gauge model, extra dimensions, and technicolor models. Some of these models also offer an alternative to the SM mechanism of electroweak symmetry breaking. The observation of an excess of diboson events would not only manifest new physics, but could also yield an insight into the origin of mass. In this talk, we will present a search for resonant WW production in the $\ell\nu\ell'\nu'$ final state and resonant WZ production in the $\ell\nu\ell'\ell'$ final state ($\ell, \ell' = e, \mu$). The data collected in 2011 and 2012 by the ATLAS detector are used for these two searches. We use Randall-Sundrum graviton and Kaluza-Klein graviton models to interpret the results in the WW search, and use extended gauge model W' and low-scale technicolor model ρ_{T} to interpret the results in the WZ search.

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