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## **Search for high-mass dilepton resonances in 20/fb of pp collisions at $\sqrt{s} = 8$ TeV with the ATLAS experiment**

The ATLAS detector is used to search for heavy neutral gauge bosons ( $Z'$ ) decaying to an electron-positron pair or a muon-antimuon pair. Results are presented based on the analysis of pp collisions at a center-of-mass energy of 8 TeV corresponding to an integrated luminosity of approximately 20 fb<sup>-1</sup>. A  $Z'$  with Standard Model Z couplings to fermions is excluded at 95% C.L. for masses below 2.79 TeV in the electron channel, 2.48 TeV in the muon channel, and 2.86 TeV in the two channels combined. Limits on other model interpretations are also presented, including a Grand Unification model based on the E<sub>6</sub> gauge group, a Randall-Sundrum graviton and a technicolor model with a composite Higgs boson.

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