

# Search for high-mass resonances decaying into dilepton final state at 13 TeV with CMS

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A search for new high-mass resonances decaying into electron or muon pairs is performed using full data obtained from 2016 proton-proton collisions at 13 TeV. The search exploits data collected by the CMS experiment at a center-of-mass energy of 13 TeV, corresponding to an integrated luminosity of 36 /fb. No significant deviations are observed from the Standard-model expectation. Upper limits on the product of a new resonance production cross section and branching fraction to dileptons are calculated in a model-independent manner. A lower mass limit is set at 95% confidence level for new spin-1 resonance arising in the sequential standard model, superstring-inspired model and spin-2 Kaluza–Klein graviton arising in the Randall–Sundrum model of extra dimensions.

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