

Search for lepton-flavor violation in $e\mu$, $e\tau$ and $\mu\tau$ final states

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A search is performed for a heavy particle decaying into different-flavor, dilepton pairs ($e\mu$, $e\tau$ or $\mu\tau$), using 36.1fb^{-1} of proton-proton collision data at $\sqrt{s} = 13\text{TeV}$ collected in 2015–2016 by the ATLAS detector at the Large Hadron Collider. No excesses over the Standard Model predictions are observed. Bayesian lower limits at the 95% credibility level are placed on the mass of a Z' boson, the mass of a supersymmetric τ -sneutrino, and on the threshold mass for quantum black-hole production. For the Z' and sneutrino models, upper cross-section limits are converted to upper limits on couplings, which are compared with similar limits from low-energy experiments and which are more stringent for the $e\tau$ and $\mu\tau$ modes.

Type

Parallel talk

Sessions (parallel only)

Beyond Standard Model

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