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Test of the universality of τ and μ lepton couplings in W-boson decays at CMS

The standard model (SM) assumes identical couplings of electroweak bosons to the three lepton generations, a property known as lepton flavor universality (LFU), whose violation implies the presence of new physics. LFU implies W boson decay rates equal across the three generations. We report a measurement of the LFU ratio $R(\tau/\mu)$ performed using leptonically decaying top quark pairs recorded by the CMS experiment during 2016–2018.

Field of contribution

Experiment

Authors: MOHANTY, Gagan (Tata Inst. of Fundamental Research (IN)); SURYADEVARA, Pruthvi (Tata Inst. of Fundamental Research (IN)); DUGAD, Shashi R. (Tata Institute of Fundamental Research, Mumbai, India); Dr MITRA, Soureek

Presenter: SURYADEVARA, Pruthvi (Tata Inst. of Fundamental Research (IN))

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