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## Lepton Universality tests using semileptonic b-hadron decays

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Semileptonic b-hadron decays to a final state with a heavy lepton are sensitive to new couplings, such as those generated by charged Higgses or Leptoquarks. The B-Factories and LHCb have performed measurements of these decays, using different approaches and techniques. A global average of measurements of ratios of branching fractions to final states with taus or light leptons shows a discrepancy with the Standard Model expectations above 3 standard deviations. A measurement of the combined ratios  $BF(B \rightarrow D0 \tau \nu)/BF(B \rightarrow D0 \mu \nu)$  and  $BF(B \rightarrow D\tau \nu)/BF(B \rightarrow D\mu \nu)$  using 3/fb collected by LHCb in Run1, is presented, as well as a first measurement of the ratio  $R(Lc) = BF(Lb \rightarrow Lc \tau \nu) / BF(Lc \rightarrow Lc \mu \nu)$  using the same dataset.

### In-person participation

Yes

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