

# Lepton Flavour Universality tests using semileptonic $b$ -hadron decays

*Friday 19 July 2024 11:30 (15 minutes)*

In the SM, the electroweak bosons couple to the three lepton families with the same strength, the only difference in their behaviour being due to the difference in mass. In recent years, some deviations have been found in measurements of the ratios of branching fractions for  $b$ -hadrons decaying into final states with different lepton flavours. This talk presents recent results of lepton flavour universality tests in  $b \rightarrow c\ell\nu$  decays, using hadronic or muonic  $\tau$  decays, performed at LHCb.

## Alternate track

### I read the instructions above

Yes

**Author:** Dr HAMILTON, Phoebe (University of Maryland (US))

**Co-author:** VOS, Keri (Nikhef National institute for subatomic physics (NL))

**Presenter:** Dr HAMILTON, Phoebe (University of Maryland (US))

**Session Classification:** Quark and Lepton Flavour Physics

**Track Classification:** 05. Quark and Lepton Flavour Physics