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## Tests of Lepton Flavor Universality at LHCb

*Wednesday 22 August 2018 12:00 (30 minutes)*

The Lepton Flavour Universality (LFU) anomalies are currently one of the hottest topics in the particle physics community. LFU can be violated in models beyond the SM by new physics particles that couple preferentially to certain generations of leptons. A combination of recent results from LHCb, Belle and BaBar on the ratio of branching fractions of tree level  $b \rightarrow c l \nu$  processes have shown a discrepancy from the Standard Model (SM) prediction of  $\approx 4 \sigma$ . Tensions with respect to SM predictions have also been observed in both branching fractions and angular observables of rare semileptonic  $b$  decays.

In the talk I will mainly review the latest lepton universality tests with both semileptonic and rare semileptonic decays of B mesons and I will give a short outlook for the near future.

### **Affiliation**

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### **Academic position**

**Presenter:** BUONAURA, Annarita (Universität Zürich (CH))

**Session Classification:** Collider physics