

Lepton Flavour Universality

Monday 26 November 2018 09:15 (50 minutes)

I will review Lepton Flavour Universality (LFU), its meaning in the context of the Standard Model, its relation to Lepton Flavour Violation and the implication of its possible failure.

LFU applies to a wide range of processes, at different energy scales, and to a high degree of accuracy. B meson decays mediated by both charged currents and neutral currents have provided hints of violation of LFU. After discussing data and the main theoretical uncertainties involved in the SM

interpretation, I will summarize the results of global fits when new physics is invoked. Effective field theories offer a plausible parametrization of these anomalies and allow for a

consistent discussion of the related constraints. As explained in this talk, these include both high-energy collider physics and low-energy processes arising from purely radiative effects.

arXiv

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