EPS-HEP2023 conference



Contribution ID: 520

Type: Parallel session talk

Tests of Lepton Flavour Universality and searches for Lepton Flavour Violation at LHCb

Thursday, 24 August 2023 09:06 (18 minutes)

Rare B-hadron decays mediated by b-> sll transitions provide a sensitive test of Lepton Flavour Universality (LFU), a symmetry of the Standard Model by which the coupling of the electroweak gauge bosons to leptons is flavour universal. Extensions of the SM do not necessarily preserve this symmetry and may give sizable contributions to these processes. Precise measurements of LFU ratios are, therefore, an extremely sensitive probe for New Physics. Likewise, breaking of LFU can result in Lepton-Flavour violating decays of the form b->s\ell\ell'. This talks summarizes recent measurements of Lepton Flavour Universality at LHCb, as well as searches for Lepton-Flavour violating decays

Collaboration / Activity

LHCb

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Session Classification: T08 Flavour Physics and CP Violation

Track Classification: Flavour Physics and CP Violation