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【301】 Flavour anomalies in $b \rightarrow sll$ meson decays: a review

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Flavour physics studies the different generations of fermions in the Standard Model (SM). The origin of flavour is, as of today, completely unknown. Flavour physics can inform efforts to produce a new theory beyond the SM, explaining phenomena such as dark matter and antimatter disappearance.

Recently, the LHCb experiment uncovered anomalies in lepton flavours. Hints of violation of “lepton flavour universality”(LFU) i.e. the identity of the three lepton families in electroweak interactions were detected in several B meson decays.

This presentation will review these findings in neutral-current B decays, give an outlook for the near future and briefly discuss how these measurements can be used to formulate new theories

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