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【380】 Experimental strategy to test Lepton Flavour Universality in $b \rightarrow sl^+l^-$ decays at LHCb

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Lepton Flavour Universality (LFU) is one of the fundamental properties of the Standard Model: photon, W and Z bosons are predicted to be equally coupled to the three lepton generations. Hints for possible deviations from LFU have been found by the LHCb collaboration in $b \rightarrow sl\ell$ and $b \rightarrow cl\nu$ decays, sparking great interest. This poster explains the strategy adopted to study $b \rightarrow sl\ell$ decays, concentrating on the experimental challenge of estimating the efficiencies. This is a key ingredient to evaluate the ratio between $B \rightarrow Xl\ell$ branching fractions (where X indicate a generic system containing a strange meson and $\ell = e, \mu$), a clean experimental observable sensitive to presence of LFU-breaking new particles.

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