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## LFU test in the strange sector at LHCb

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### Abstract

Lepton Flavour Universality (LFU) is an accidental symmetry of the Standard Model (SM) which establishes that all three lepton families have the same coupling to the electro-weak force carriers. The combination of recent LFU test results in  $b \rightarrow c\ell\nu$  transitions show a  $4.2\sigma$  tension with the SM predictions, suggesting this may be the right direction to find New Physics. These results come from ratios of branching fractions between two leptonic channels with a first-generation quark as spectator. However, having a strange quark as the spectator can result in an easier experimental measure. In this poster, I will present the progress made in  $R(D_s^{**})$ , a LFU test currently being conducted at LHCb. This analysis will be one of the first of its kind to explore the strange sector.

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