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【305】A new approach in the search for New Physics in b⟶sl+l- decays

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Recent studies of rare semileptonic decays of beauty mesons reported some intriguing discrepancies with the SM predictions, which seem to form a coherent pattern. Of particular interest are the angular observable P5' of the B⟶Kμ+μ- *decay and the suppression of the muon channel in the ratios of branching fractions of B+⟶K+μ+μ− to B+⟶K+e+e− transitions.*
*The proposed research aims to perform an unbinned likelihood amplitude fit of B⟶ K*l+l- decays with the full LHCb run-I/II dataset, simultaneously to the muon and electron channel. This approach intends to disentangle the hadronic-dependent part from a q2-independent New Physics(NP) contribution in a theoretically accurate and experimentally sensitive manner, establishing eventually an evidence of NP.

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