Vietnam Flavour Physics Conference 2025



ID de Contribution: 5 Type: Theoretical

Inclusive vs exclusive b->s l+ l- decays: a path around irreducible non-perturbative uncertainties

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Inclusive rare semileptonic B decays (B->Xs l+ l-) probe the very same physics that is at the heart of the famous anomalies found by LHCb in various exclusive b->sll decays. Even though inclusive modes are much harder to measure than the corresponding exclusive ones, they offer a unique opportunity to cross check the anomalies using observables which suffer from a completely orthogonal set of theoretical uncertainties. I discuss the state of art calculations of the three observables that can be constructed in inclusive decays and discuss how measurements performed at Belle, BaBar and LHCb can already shed light on the anomalies. I conclude with a presentation of the expected constraints that can be obtained using the full expected Belle-II data set and with a discussion of strategies to improve the extrapolation in the Xs invariant mass that is required, at low-q2, to connect the experimental fiducial region to the total rate.

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Classification de Session: B-Decays and CP Violation

Classification de thématique: Rare B Decays