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Studies on inclusive semileptonic decays from lattice QCD

Monday 22 July 2024 19:00 (1 hour)

We report on the nonperturbative calculation of the inclusive decay rate for semileptonic decays of the D_s meson from lattice QCD. We present a short overview on how the Chebyshev approximation can be employed in order to obtain predictions for the total inclusive decay rate from hadronic correlators generated from lattice simulations. We further present first estimates on the systematic effects associated with the analysis. Namely, we focus on the systematic errors introduced by the finite polynomial order in the Chebyshev approximation used in the analysis and the error due to finite-volume effects.

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