

Kolya and New results on inclusive V_{cb} using q^2 , E_ℓ and M_X spectral moments

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We present a new global fit for inclusive V_{cb} decays based on the Kolya open-source library, utilizing the full available set of spectral moments of semileptonic $B \rightarrow X_c \ell \nu$ decays with state-of-the-art precision. Our approach includes a novel prescription to estimate the uncertainty arising from missing higher-order contributions of order $1/m_b^4$ in the heavy quark expansion (HQE). We review various approaches on how to incorporate theoretical uncertainties and correlations, studying their impact on the value of inclusive V_{cb} and HQE parameters.

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