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Decay constants of heavy mesons from QCD sum rules

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We study the decay constants of D, Ds, B, Bs mesons with Borel QCD sum rules, making use of the recent modifications related to the Borel-parameter-dependent effective continuum threshold. For the fixed values of the QCD parameters, our modifications are shown to lead to a visible shift of the extracted value of the decay constant compared to the standard analysis based on a Borel-parameter-independent threshold. We argue that our modifications allow one to probe the systematic errors of the extracted decay constants. We provide rather accurate results for f_D and f_{D_s} . We demonstrate that an accurate extraction of f_B and f_{B_s} is only possible if a very precise value of $m_b(m_b)$ is known.

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