Quark Confinement and the Hadron Spectrum XI



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Decay constants of heavy mesons from QCD sum rules

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We present the analysis of the decay constants of charmed and beauty heavy mesons using QCD sum rules. We show that the perturbative expansion in terms of the pole mass of the heavy quark exhibits no sign of convergence whereas reorganizing this expansion in terms of the running mass leads to a distinct hierarchy. Making use of the OPE in terms of the running mass, we determine the decay constants of the D, Ds, B, Bs and the corresponding vector mesons with the emphasis on the uncertainties in these quantities related both to the input QCD parameters and to the limited accuracy of the method of sum rules.

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