

Properties of excited charmed mesons from QCD sum rules

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I consider semileptonic B-meson decay to the orbitally excited charmed meson D_2^* , having spin parity $J^P = 2^+$. In particular, I apply the QCD sum rules method (using the original formulation known as short distance sum rules) to compute the decay constant of D_2^* that is a preliminary ingredient for the calculation of the form factors describing the transition $B \rightarrow D_2^*$.

Afterwards, I consider the variant of the method called light-cone QCD sum rules in order to derive the form factor K_V describing the matrix element of the vector current between the B meson and D_2^* .

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