

A comparative analysis for the form factors and coupling constant of the $DsDK^*$ meson vertex

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Recently, we made a calculation of the form factors and coupling constant of $DsDK^*$ using the QCD Sum Rules. This information is fundamental to compute the amplitude for the process $B \rightarrow K^*\pi$ in effective theories. The method used considers the three cases of different off-shell mesons. After an extrapolation of the results of QCD Sum rules, we obtain the coupling constant of the vertex. The uncertainties of these results are analyzed as well as the variations of sum rules' parameters. Moreover, the conditions of the contributions of the pole and continuum also are accurately analyzed. In view of this complete analysis, we perform a comparative study of the form factors and coupling constant obtained by other methods.

References:

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