

Contribution ID: 34

Type: not specified

## On the contribution of the electromagnetic dipole operator to the $\bar{B}_s \rightarrow \mu^+ \mu^-$ decay amplitude

Wednesday 30 November 2022 09:00 (20 minutes)

We report on the construction of a factorization theorem that allows to systematically include QCD corrections to the contribution of the electromagnetic dipole operator  $calO_7$  to the  $\bar{B}_s \rightarrow \mu^+ \mu^-$  decay amplitude. We elaborate on how the occurring endpoint divergences appearing in individual momentum regions cancel, and show how the resulting rapidity logarithms can be isolated by suitable subtractions applied to the corresponding bare factorization theorem. This allows to include in a straightforward manner the QCD corrections arising from the renormalization-group running of the hard matching coefficient, the hard-collinear scattering kernel, and the  $B_s$ -meson distribution amplitude. We estimate the effect numerically using a recently advocated parameterization of the  $B_s$ -meson light-cone distribution amplitude.

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