

Renormalization of B-meson distribution amplitudes

Thursday, July 16, 2009 11:00 AM (20 minutes)

We study some properties of light-cone distribution amplitudes of B-mesons, which are a key ingredient for factorisation approaches for B-meson decays. We determine how two-parton distribution amplitudes mix with three-parton ones at one loop: ϕ_+ is shown to mix only into itself, whereas ϕ_- mixes with the difference of three-parton distribution amplitudes $\Psi_A - \Psi_V$. We determine the corresponding anomalous dimension and confirm some constraints on ϕ_+ and ϕ_- derived from the light-quark equation of motion. Finally, we comment on some implications of our result for phenomenological models of these distribution amplitudes.

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Session Classification: VI. QCD in Hadronic Physics

Track Classification: QCD in hadronic physics