

The QCD Strong Coupling from Hadronic τ decays

A PhD Defense

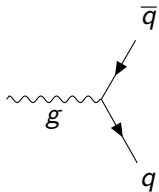
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The Strong Coupling α_s



$$\mathcal{L}_{QCD} = \cdots + \sqrt{\pi\alpha_s} \bar{q}(x) \lambda \gamma_\mu q(x) G(x) + \cdots \quad (1)$$

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¹Beneke and Jamin, “ α_s and the τ hadronic width: fixed-order, contour-improved and higher-order perturbation theory”.

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Theoretical Framework

PT Contributions

Beneke, Martin and Matthias Jamin. “ α_s and the τ hadronic width: fixed-order, contour-improved and higher-order perturbation theory”. In: *JHEP* 09 (2008), p. 044. DOI: 10.1088/1126-6708/2008/09/044. arXiv: 0806.3156 [hep-ph].