Perturbative QCD and the Determination of α_s

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Abstract

The precise determination of the coupling α_s is one of the most important results in perturbative QCD. After a brief review of some open questions in the extraction of α_s from the hadronic decays of the τ lepton, I discuss a new determination of $\alpha_s(M_\tau^2)$, based on an improved perturbation expansion of the Adler function.