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Probing renormalized perturbation theory with data from lattice QCD at high energies

Thursday, 14 December 2017 09:40 (40 minutes)

Using lattice QCD and a finite space time volume to set the scale, a family
of renormalized QCD couplings in SF schemes can be traced
non-perturbatively from intermediate to high energies of O(100 GeV),
where perturbation theory is expected to work very well.
I will first discuss the continuum extrapolation
of the lattice data and then assess the quality of
renormalized perturbation theory in a number of ways, based on
the available 2-loop matching between the MSbar and the SF schemes.

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