

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 $O(100 \text{ GeV})$, 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 $\overline{\text{MS}}$ and the SF schemes.

Primary author: Dr SINT, Stefan (Trinity College Dublin)

Presenter: Dr SINT, Stefan (Trinity College Dublin)

Session Classification: Session 5