

Determination of α_s in $N_f = 3$ QCD from current-current correlation functions in position space

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In this talk, we present a lattice determination of the coupling constant α_s in $N_f = 3$ QCD for renormalization scales $\mu \in (1, 2)$ GeV.

The computation has been performed on ensembles generated by the Coordinated Lattice Simulations (CLS) consortium, with tree-level Symanzik-improved gauge action and Wilson O(a)-improved fermions. Our approach is based on the study of current-current correlation functions in position space and allows to determine α_s (or alternatively the Λ parameter) with a competitive precision.

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