Short-flow-time expansion of four-quark operators at NNLO QCD

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Non-perturbative matrix elements of four-quark operators are essential ingredients for the determination of heavy meson lifetimes. The gradient flow formalism provides a way for their calculation in lattice gauge theory. This requires the knowledge of the coefficients of the short-flow-time expansion of the corresponding operators, which can be calculated in perturbation theory. In this talk, the relevant four-quark operators and the calculation of their short-flow-time expansions through NNLO QCD will be described.

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