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A fresh look at the nested soft-collinear subtraction scheme: NNLO QCD corrections to N-gluon final states in quark-anti-quark annihilation

Wednesday, 13 March 2024 14:50 (20 minutes)

In this talk, I describe how the nested soft-collinear subtraction scheme can be used to compute NNLO QCD corrections to the production of an arbitrary number of gluonic jets in hadron collisions. In particular, I show how to identify NLO-like recurring structures of infrared subtraction terms that in principle can be applied to any partonic process. As an example, I demonstrate the cancellation of all singularities in the fully-differential cross section for the quark-anti-quark annihilation into an arbitrary number of final state gluons at NNLO in QCD.

Significance

References

Experiment context, if any

Primary author: TAGLIABUE, DAVIDE MARIA

Presenter: TAGLIABUE, DAVIDE MARIA

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