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## Two-loop five-point amplitudes in massless QCD with finite fields

Wednesday 26 October 2022 11:50 (20 minutes)

I will discuss the analytic calculation of two-loop five-point helicity amplitudes in massless QCD. In our workflow, we perform the bulk of the computation using finite field arithmetic, avoiding the precision-loss problems of floating-point representation. The integrals are provided by the pentagon functions. We use numerical reconstruction techniques to bypass intermediate complexity and obtain compact forms for the rational coefficients. I will present results for NLO gluon-initiated diphoton-plus-jet production and NNLO trijet production.

### Significance

### References

arxiv:2106.08664

### Experiment context, if any

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