

## Two-loop amplitude reduction with HELAC

*Wednesday 17 April 2024 11:30 (30 minutes)*

I will present recent progress in constructing a generic two-loop amplitude reduction algorithm within the computational framework HELAC. Following HELAC tree- and one-loop paradigm, we have completed the generation and validation of the two-loop amplitude-integrand in QCD. Following the well-known OPP reduction approach, we express the amplitude in terms of Feynman integrals which are further reduced to master integrals by IBP identities. I will also discuss the computation of the so-called rational terms. Preliminary results on four- and five-gluon amplitudes will be presented.

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