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On the maximal transcendental weight contribution of scattering amplitudes

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Since Feynman integrals in QFT evaluate to special functions and numbers, it is essential to profit from this knowledge to extract in a simple way preliminary information of multi-loop scattering amplitudes. To this end, one can focus on their maximal transcendental weight contribution. In this talk, I report on a method that uses insights into the singularity structure of space-time loop integrands, and complements unitarity-based methods. I illustrate this method with the application to the two-loop scattering amplitudes of the Higgs decay into two gluons in the heavy top-quark mass limit.

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