

Automated Computation of One-loop Scattering Amplitudes

Tuesday, February 23, 2010 4:30 PM (30 minutes)

The problem of an efficient and automated computation of scattering amplitudes at the one-loop level for processes with more than 4 particles is crucial for the analysis of the LHC data.

In this presentation I will review the main features of a powerful new approach for the reduction of one-loop amplitudes that operates at the integrand level. The method, also known as OPP reduction, is an important building block towards a fully automated implementation of this type of calculations. I will illustrate the existing numerical codes available for the reduction and discuss the ongoing efforts to target important issues such as stability, versatility and efficiency of the method.

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