New Techniques for the Reduction of One-Loop Scattering Amplitudes

PRESENTED BY:
Dr. Giovanni Ossola
Department of Physics
New York City College of Technology, CUNY

Friday, February 6, at 04:00 PM
Room: 3209 (Graduate Center of CUNY)

The problem of an efficient and automatized 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. After a general introduction, 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.