Santa Fe Jets and Heavy Flavor Workshop

January 11-13, 2016

Contribution ID: 85 Type: not specified

(Semi)automated Resummation for multijet processes with MadGraph

Wednesday, 13 January 2016 14:00 (30 minutes)

Some of the most arduous and error-prone aspects of precision resummed calculations are related to the partonic hard process, having nothing to do with the resummation. In particular, interfacing to parton-distribution functions, combining various channels, and performing the phase space integration can be limiting factors in completing calculations. Conveniently, however, most of these tasks are already automated in many Monte Carlo programs. In this talk, I will show how such programs can be used to produce all necessary process dependent information for resummed calculations, needing only universal factors as input. Examples of a particular implementation using MadGraph for multi-jet e+e- and pp collisions are presented.

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Session Classification: Session 11