

Improvements of the sector-improved residue subtraction scheme

Tuesday, 29 August 2017 17:30 (30 minutes)

Decreasing errors in experimental data obtained from colliders like the LHC makes it necessary to invoke higher and higher orders in theory predictions. A crucial part of the NNLO QCD predictions is the handling of the double real radiation phase-space and the cancellation of IR divergences with other contributions. I present a new phase-space parameterization for the sector-improved residue subtraction scheme as well as a new method for the evaluation of the corrections needed to employ the four-dimensional 't Hooft - Veltman scheme. Furthermore novel applications of the subtraction scheme are discussed.

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Session Classification: Hard QCD and EW