Contribution ID: **15** Type: **not specified**

The MINLO method as an alternative to conventional Fixed-Order NLO

Wednesday, July 23, 2025 11:00 AM (20 minutes)

In this talk, I will present the Multi-Improved NLO (MINLO) method as an alternative to the conventional fixed-order NLO approach, which depends on an arbitrary choice of renormalization and factorization scales. The MINLO framework dynamically determines these scales based on the most probable branching histories and incorporates Sudakov form factors to resum large double logarithms that arise in processes with widely separated energy scales. I will highlight the differences between the fixed-order NLO and MINLO approaches through a comparative study of top-quark pair production with up to three jets at NLO in QCD.

Author: DIMITRAKOPOULOS, Nikolaos (RWTH Aachen University)

Presenter: DIMITRAKOPOULOS, Nikolaos (RWTH Aachen University)

Session Classification: Young Scientists Talks: Session 6