

Luca Rottoli – Special HEP seminar 1/28/2021 @ 12 noon
University of Zurich

Title: Higgs transverse momentum with a jet veto: a double-differential resummation

Abstract: The precision of the data collected at the Large Hadron Collider (LHC) demands an increasing theoretical accuracy at the multi-differential level to fully exploit the LHC potential. In this talk I present the first joint resummation for a double-differential kinematic observable involving a jet algorithm in hadronic collisions. I show how a direct space formulation provides guidance to obtain an elegant and compact formulation in impact-parameter space at NNLL accuracy. As a phenomenological application, I present matched results at the LHC for Higgs boson production and $W+W^-$ production at NNLL+NLO.