Contribution ID: 22 Type: not specified

RG-improved resummation of super-leading logarithms

Tuesday, 10 September 2024 15:20 (25 minutes)

The higher-order behavior of logarithmically enhanced contributions in non-global LHC observables is very intricate, in particular as double-logarithmic corrections – so-called super-leading logarithms (SLLs) – arise first at high orders in perturbation theory.

Their all-order resummation has been understood recently by means of a factorization formula in soft-collinear EFT.

In this talk, I will discuss improvements in the resummation of SLLs, including a renormalization-group treatment with a running coupling constant, as well as corrections from higher-order Glauber exchanges.

Primary authors: NEUBERT, Matthias (Johannes Gutenberg University Mainz); STILLGER, Michel (JGU

Mainz); HAGER, Patrick (JGU Mainz); BÖER, Philipp (JGU Mainz); XU, Xiaofeng (JGU Mainz)

Presenter: BÖER, Philipp (JGU Mainz)

Session Classification: Resummation, Parton Showers and Monte-Carlo

Track Classification: Resummation, Parton Showers and Monte-Carlo