Contribution ID: **49**   Type: **not specified**

Factorization and resummation for sequential recombination jet cross sections

Thursday, 12 September 2024 14:55 (25 minutes)

We extend the class of factorization theorems for non-global observables from fixed angular constraints to cross sections defined in terms of sequential jet clustering. The associated hard and soft functions depend not only on the directions of the hard partons, but also on their energy fractions. We derive the one-loop anomalous dimension of the hard functions that drives the leading-logarithmic resummation. The anomalous dimension imposes energy ordering, which simplifies the clustering sequence. We perform resummations for gap-between-jet observables defined with different jet algorithms and explain the effects of the clustering on the importance of secondary emissions and on the effective gap size.

Primary authors: HAAG, Jürg (UZH); BECHER, Thomas (University of Bern)

Presenter: HAAG, Jürg (UZH)

Session Classification: Resummation, Parton Showers and Monte-Carlo

Track Classification: Resummation, Parton Showers and Monte-Carlo