

Nonperturbative Effects in Groomed Event Shapes

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Jet grooming has an important significance in the study of QCD event shapes. Soft drop grooming is a great tool for reducing the soft contamination to the jet, while at the same time allowing one to calculate groomed event shape cross sections in perturbation theory. It also results in reduced corrections to the perturbative cross section from hadronization and underlying event. However, despite these advantages, due to complicated nature of the algorithm, it is a non-trivial problem to include consistently a description of non-perturbative effects. This is absolutely essential if one aims to use groomed observables to carry out measurements, such as α_s , where an appropriate parameterization of the non-perturbative effects is needed. In this talk I address these issues, deriving results solely from field theory wherever possible.

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