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Quark jet fraction in multi-jet final states and quark gluon discrimination

Thursday, 15 February 2018 13:30 (20 minutes)

We calculate quark and gluon jet fraction in multi-jet final states based on perturbative QCD at double logarithmic accuracy. We derive a measurable scaling pattern of the fraction, which is related to a performance for quark-gluon jet tagging technique using QCD jet substructure. We also propose a data-driven method to use the tagging technique in large jet multiplicity.

Presenter: SAKAKI, Yasuhito (KAIST) **Session Classification:** Short Talks