

Hadron production from high energy jets in proton-proton collisions

Abstract content

We investigate whether and how different fragmentation properties of quarks and gluons affect identified particle spectra. We present a systematic study of π , K and p production in minimum bias (inelastic, non-diffractive), two- and three-jet events at RHIC, Tevatron and LHC energies. Through the study of two- and three-jet events and various jet-production channels we can directly access the fragmentation properties of quark and gluon jets. We present MC estimate for the contribution of quark and gluon jets to individual particle species spectra, that can be compared to experimental results and test our current knowledge of the physics behind particle production inside jets.

Summary

A MC study of identified particles spectra based on quark and gluon content in an event.

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