

Hard Probes 2018: International Conference on Hard & Electromagnetic Probes of High-Energy Nuclear Collisions

Contribution ID: 379

Type: 2c) Jets and high-pT hadrons (POSTER FROM TALK)

Testing Small Systems with Non-extensive Fragmentation Functions for High Energy Collisions

We introduce a novel fragmentation function parametrization based on the non-extensive statistical phenomena. Parametrization of the leading order fragmentation functions is made for the hadronization of partons to charged pions, kaons, and protons. The obtained parameters are result of fit to data from electron-positron annihilation, however contains information on the statistical properties of the collisional system. Results were compared to other, widely-used fragmentation function parametrization. We also tested by calculating identified high pT hadron production in proton-proton collision, which is also compared to measured data.

Summary

Primary authors: Dr BARNAFOLDI, Gergely Gabor (Wigner RCP Hungarian Academy of Sciences (HU)); TAKÁCS, Ádám (Wigner Research Centre for Physics); KALMAR, Gergely (Hungarian Academy of Sciences (HU)); VERTESEI, Robert (Hungarian Academy of Sciences (HU))

Presenter: VERTESEI, Robert (Hungarian Academy of Sciences (HU))

Session Classification: Poster Session