

Jet propagation within a Linearized Boltzmann Transport Model

Monday, 4 November 2013 14:50 (20 minutes)

A Linearized Boltzmann Transport model is developed for the study of parton propagation inside quark-gluon plasma. Both leading partons and thermal recoiled partons are tracked so that one can also study jet-induced medium excitation. In this study, we implement the complete set of elastic parton scattering processes and investigate elastic parton energy loss, transverse momentum broadening and their nontrivial energy and length dependence. We further investigate the jet shape and fragmentation functions of reconstructed jets using FASTJET algorithm. Contributions from the recoiled thermal partons are found to have significant influences on jet shape and angular distribution of reconstructed jets.

Keywords

Jet transport

Primary author: Prof. WANG, Xin-Nian (LBL/CCNU)

Co-authors: Mr LUO, Tan (Central China Normal University); Dr ZHU, Yan (U. Bielefeld); Mr HE, Yayun (Central China Normal University)

Presenter: Mr LUO, Tan (Central China Normal University)

Session Classification: Jet Quenching and Observables

Track Classification: Jet Quenching and Observables