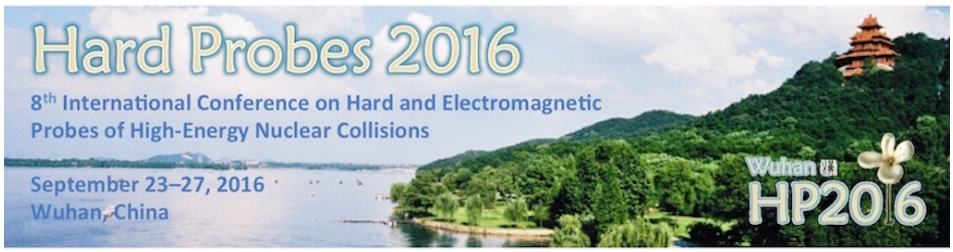

Contribution ID: **179** Type: **not specified**

Energy flow and transverse momentum balance in gamma-jets and dijet events of heavy-ion collisions

Saturday 24 September 2016 16:40 (20 minutes)

We develop a Linear Boltzmann Transport model for jet propagation in quark-gluon plasma in high-energy heavy-ion collisions. In this model, we take special consideration of recoiled partons from both elastic scattering and induced gluon radiation processes and their further propagation. Along with a recombination model for the hadronization processes, our simulations can provide a fairly realistic description of not only the medium modification of the reconstructed jets but also the jet-induced medium excitation in the underlying hydrodynamic background.

In this talk, we will discuss various jet observables in gamma-jets and dijet events and compare our results with the experimental data. Jet fragmentation function and jet shape are studied to look inside the jet structure. The radius R is extended in our jet shape study to look at the transverse momentum distribution outside the jet cone. We also investigate the transverse momentum balance as a function of opening angles around jets in dijet events. In particular, we calculate and compare the energy flow around the jet axis in gamma-jets and dijet events. Our results show the sensitivity of such spatial distribution of energy to the jet-medium interaction strength in the quark gluon plasma.

Summary

Presentation type

Oral

Presenter: LUO, Tan (Central China Normal University)

Session Classification: Parallel Session IV: High pT Correlations (II)