

10th International Conference on Hard and Electromagnetic Probes of High-Energy Nuclear Collisions



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Type: **Oral Presentation**

Fragmentation and equilibration of jets in a QCD plasma.

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We investigate the medium induced fragmentation of jets in a high-temperature QCD plasma. Based on an effective kinetic theory of QCD, we study the non-equilibrium evolution of the jet shower and the chemical equilibration of jet fragments in the medium. By including radiative emissions as well as the elastic interactions evolution, our approach extends all the way from the jet energy scale to the temperature of the medium and includes important effects such as the recoil of the medium. We present results for the in-medium fragmentation, including chemical and kinetic equilibration of the soft fragments and discuss implications of our result to jet quenching physics and the problem of thermalization of the quark-gluon plasma in heavy ion collisions.

Collaboration (if applicable)

Track

Jets and High Momentum Hadrons

Contribution type

Contributed Talk

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