Contribution ID: **138** Type: **Oral**

Jet quenching in perturbative QCD with JEWEL

Monday, 4 November 2013 13:30 (20 minutes)

I will discuss the present status and prospects for future developments and applications of the (soon publicly available) JEWEL code. JEWEL is a fully microscopic Monte Carlo event generator for jet evolution in a dense, strongly interacting medium. It employs a consistent perturbative approach using a common framework for all scattering and radiation processes. This construction allows for the consistent treatment of recoils, radiation off recoiling scattering centres, multiple gluon emission, interplay between vacuum and medium induced radiation and interferences. At the same time it is very constrained leaving little room for tuning and allowing for a quantitative assessment of uncertainties related to the basic assumptions. Despite its being based on few minimal assumptions JEWEL results are in reasonable agreement with experimental data for both jets and leading hadrons. JEWEL can be interfaced with any model for the medium and thus offers a tool for studying how models implementing different medium properties can be disentangled with the help of hard probes.

Keywords

jet quenching

Primary author: ZAPP, Korinna (CERN)

Presenter: ZAPP, Korinna (CERN)

Session Classification: Jet Quenching and Observables

Track Classification: Jet Quenching and Observables