Organisé conjointement par
CPHT-École Polytechnique et Groupe Théorie IPN Orsay

SÉMINAIRE de PHYSIQUE des PARTICULES

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Transverse momentum broadening and Sudakov effects in hard nuclear collisions

Résumé :
We study the dijet azimuthal de-correlation in relativistic heavy ion collisions as an important probe of the transverse momentum broadening effects of a high energy jet traversing the quark-gluon plasma. We take into account both the soft gluon radiation in vacuum associated with the Sudakov logarithms and the jet pt-broadening effects in the QCD medium. We find that the Sudakov effects are dominant at the LHC, while the medium effects can play an important role at RHIC energies. This explains why the LHC experiments have not yet observed sizable pt-broadening effects in the measurement of dijet azimuthal correlations in heavy ion collisions.

Jeudi 2 Juin 2016

11:00

Salle de Conference