



Contribution ID: 146

Type: not specified

[CONTRIBUTION WITHDRAWN] Spacetime development of hadronization at low energy : scenario for leading hadron

We present a model for vacuum and in-medium hadronization of the leading quark, based on Berger model. In this model, after a length L_p , the outgoing quark hadronized into a pre-hadron (dipole). This dipole can be absorbed by the medium, leading to nuclear suppression. Our results are compared with EG2 and HERMES data for the multiplicity ratio and p_t -broadening. Induced energy loss has been introduced in two different ways, leading to comparable results. We are then able to state about respective contributions of nuclear absorption and induced energy loss as a function of the kinematics.

The p_t -broadening is of particular interest and there is no publication with theoretical calculations compared to data. Results of our model are in good agreement with EG2 and HERMES experiments and we will show that it provides one of the most precise estimation of the quark Fermi motion in the nucleon.

Some ideas developed here can find application in high p_t hadron quenching in heavy ion collisions.

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Session Classification: WG4 Hadronic and Electroweak Observables

Track Classification: WG4) Hadronic and Electroweak Observables