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Multi-partonic medium induced cascades in expanding media

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Going beyond the simplified gluonic cascades, we have introduced both gluon and quark degrees of freedom for partonic cascades inside the medium. We then solve the set of coupled evolution equations with splitting kernels calculated for static, exponentially expanding and Bjorken media to arrive at medium-modified parton spectra for quark and gluon initiated jets. For our calculations, we have included phenomenologically driven parton fractions for the calculation of inclusive jet R_{AA} and its rapidity dependence. Finally, we have studied the path-length dependence of jet quenching for different types of expanding media by calculating the jet v_2 . These studies help to quantify a discriminating power of different observables for distinguishing the type of the medium expansion.

Is this abstract from experiment?

No

Name of experiment and experimental site

N/A

Is the speaker for that presentation defined?

Yes

Details

Souvik Priyam Adhya, Dr., Charles University, Czech Republic, http://ipnp.cz/?page_id=69

Internet talk

Maybe

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