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Exploring quenching features of multi-partonic cascades in expanding medium

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Quenching features of multi-partonic cascades in expanding media are important in understanding the complex phenomena of jet quenching. We present results for the inclusive jet R_{AA} by including phenomenologically driven combinations of quark and gluon fractions inside a jet. In addition, we have also studied the effect of the nPDF as well as vacuum like emissions on the jet R_{AA} . Differences among the estimated values of quenching parameter for different types of medium expansions are noted. Next, the impact of the expansion of the medium on the rapidity dependence of the jet R_{AA} as well as jet v_2 are studied in detail. Finally, we present qualitative results comparing the sensitivity of the time for the onset of the quenching for the Bjorken expanding profile on these observables. All the quantities calculated are compared with the recent ATLAS data.

Preferred track

Jets & QCD at High Scales

Subfield

Heavy-ion theory

Attending in-person?

Yes

On behalf of collaboration?

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