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Typ: Talk

Charge enhancement of parton showers in QCD plasmas

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By scattering with the medium, partons produced by an in-medium shower can change their flavor. At these intermediate energy scales, the rate of gluon conversion to quarks and antiquarks can be more than double the reverse process of quark conversion. Consequently, interactions with the medium lead to a ring of fermions around the hard parton [1]. We present estimates of the range of angles and times where these charge/baryonic rings appear in the angular structure of jets. We discuss the consequences of this dramatic change in the baryon content of the jets, due to the presence of the medium, and how it may contribute to the baryon enhancements observed at intermediate p_T .

[1]- C. Sirimanna et al., arXiv:2211.15553

Experiment/Theory

Theory/Phenomenology

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Track Klassifizierung: Jets and their modification in QCD matter