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Medium Induced Collinear Radiation via Soft Collinear Effective Theory (SCET) FRANCESCO D'ERAMO, HONG LIU, KRISHNA RAJAGOPAL, MIT — The propagation of hard partons through the strongly interacting matter created in high energy heavy-ion collisions involves widely separated scales. The methods of Effective Field Theories (EFT) can provide a factorized description at lowest nontrivial order, and a formalism where the correction to this factorization are calculable systematically order by order in the small ratios between the different scales. In this talk I will present our preliminary results on the medium induced collinear radiation by using the methods of Soft Collinear Effective Theory (SCET). The radiated gluon is collinear with the incoming hard parton and gets an arbitrary fraction of its energy.

Francesco D'Eramo
MIT

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