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## Probing the medium with heavy quarks using EFT

Heavy quark energy loss in a strongly coupled  $N = 4SU(N_c)$  has been studied using AdS/CFT correspondence, which shows hydrodynamic excitations to be the primary modes. Similar results are lacking for strongly coupled QCD plasma due to absence of dual description. Motivated by the AdS/CFT result, we construct an effective field theory of heavy quark in a hydrodynamic medium which aims to provide a framework to understand energy loss for heavy quarks through collective modes in QGP.

### Category

Theory

### Collaboration (if applicable)

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