

Medium evolution of a static quark-antiquark pair in the large N_c limit

Content

We study the transitions between the different color states of a static quark-antiquark pair, singlet and octet, in a thermal medium. This is done non-perturbatively exploiting the infinite mass limit of QCD. This study is interesting because it can be used for future developments within the framework of Effective Field Theories (EFTs) and because it can be combined with other techniques, like lattice QCD or AdS/CFT, to gain non-perturbative information about the evolution of quarkonium in a medium. We also study the obtained expressions in the large N_c limit. This allows us to learn lessons that are useful to simplify phenomenological models of quarkonium in a plasma.

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Summary

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