

10th International Conference on Hard and Electromagnetic Probes of High-Energy Nuclear Collisions



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Heavy quarkonium suppression at LHC in the intermediate temperature regime

Heavy quarkonium is one of the probes of the formation of a quark-gluon plasma in heavy-ion collisions. Recently, it has been found that its interaction with the medium can be described, in the intermediate temperature regime, by a rate equation for the singlet to octet transition combined with a Langevin equation for the octet to octet transition. Such a description can be justified from first principles using the open quantum system formalism and it can be shown that it leads to the correct thermalization of the system. In this talk, I will present an application of this model to the prediction of the suppression pattern of Upsilon(1S) at LHC and I will discuss how non-perturbative input from the lattice computation of the real part of the potential can be introduced in the model. The results that are found, using just a simple Bjorken evolution, are in qualitative agreement with experimental observations.

Collaboration (if applicable)

Track

Heavy Flavor and Quarkonia

Contribution type

Contributed Talk

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