

*Organisé conjointement par
CPHT-École Polytechnique et Groupe Théorie IPN Orsay*

SÉMINAIRE de PHYSIQUE des PARTICULES

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Quarkonium suppression in heavy-ion collisions: an open quantum system approach

Résumé :

We address the evolution of heavy-quarkonium states in an expanding quark-gluon plasma by implementing effective field theory techniques in the framework of open quantum systems. The quarkonium density-matrix evolution equations can be written in the Lindblad form. Thermal mass shifts, thermal widths and the Lindblad equation itself depend on only two non-perturbative parameters: the heavy-quark momentum diffusion coefficient and its dispersive counterpart. Finally, by numerically solving the Lindblad equation, we provide results for the $Y(1S)$ and $Y(2S)$ nuclear modification factors.

Lundi 30 Octobre 2017

11:00

Salle A015