

Séminaire de physique des particules et de cosmologie

Mardi 01/12/2020, 16:00

Orme des Merisiers

**Towards the fully differential medium-induced spectrum
with the Improved Opacity Expansion**

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In this talk, I will revisit a new expansion scheme, called improved opacity expansion (IOE), that aims at computing the spectrum of medium-induced emissions in dense and finite QCD media. This semi-analytic framework successfully encompasses the two known asymptotic limits of the parton-medium interaction: single hard and multiple soft scatterings, valid at high and low frequencies, respectively. I will compare the energy-dependent spectrum together with the transverse momentum broadening probability distribution obtained with the IOE to the exact numerical solution and discuss the limitations of this expansion scheme. Finally, first steps towards the energy and transverse momentum dependent medium-induced spectrum will be presented.

The seminar is online only: <https://bbb.ipht.fr/b/raf-ffq-uzd>
