

SEMPARIS – Séminaires en région parisienne

<http://string.lpthe.jussieu.fr/semparis/>

Séminaire de physique des particules et de cosmologie

Mardi 22 Janvier 2019, 16 :00
IPHT, Salle Claude Itzykson, Bât. 774
Domaines : hep-ph

Titre : *Chemical equilibration in hadronic collisions*

Orateur : **Aleksas Mazeliauskas (Heidelberg University)**

Résumé : *We study chemical equilibration in out-of-equilibrium Quark-Gluon Plasma using the first principle method of QCD effective kinetic theory, accurate at weak coupling. In longitudinally expanding systems—relevant for relativistic nuclear collisions—we find that for realistic couplings chemical equilibration takes place after hydrodynamization, but well before local thermalization. We estimate that hadronic collisions with final state multiplicities $dN_{ch}/d\eta > \sim 10^2$ live long enough to reach approximate chemical equilibrium, which is consistent with the saturation of strangeness enhancement observed in proton-proton, proton-nucleus and nucleus-nucleus collisions.*

References : *arXiv :1811.03040, arXiv :1811.03068*
