SEMPARIS – Séminaires en région parisienne

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Seminar of the theory group of APC

Mardi 27 Mars 2018, 14 :00
APC, 483 A - Malevitch
Domaines : hep-th

Titre : *Thermalization and hydrodynamics of the quark-gluon plasma*

Orateur : **Jean-Paul Blaizot (IPhT)**

Résumé : *There is experimental evidence that the quark-gluon plasma produced in ultra-relativistic heavy ion collisions is well described by viscous hydrodynamics, with a low value of the viscosity (relative to the entropy density). This observation, added to the recent discovery that the same description works well also for high energy proton-nucleus or high multiplicity proton-proton collisions, is raising a number of interesting theoretical questions : How does the system of gluons freed in the early stage of a collision evolve towards local thermal equilibrium ? How does hydrodynamical behavior emerge in systems whose natural description is in terms of quantum field theory ? Can we observe hydrodynamical behavior in the absence of local equilibrium ? Such questions, among others, will be discussed during the talk.*