SEMPARIS – Séminaires en région parisienne

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Seminar of the theory group of APC

Mardi 11 Décembre 2018, 14 :00
APC, 646 A - Mondrian
Domaines : hep-th

Titre : *Holographic collisions across a phase transition*

Orateur : **Yago Bea (University of Barcelona)**

Résumé : *We use holography to mimic heavy ion collisions and obtain new qualitative insights possibly relevant for QCD. Our studies are motivated by the extensive experimental efforts devoted to the search of the conjectured critical point in the QCD phase diagram. Holographically, we perform collisions in strongly- coupled gauge theories with thermal phase transitions. We find that near a second order phase transition almost all the energy of the projectiles is deposited into a long-lived, quasi-static blob of energy. Moreover, hydrodynamics describes this blob only if we consider a formulation different from the Muller-Israel-Stewart formulation that is almost universally used in the numerical codes describing the quark-gluon plasma formed at RHIC and LHC.*