SEMPARIS – Séminaires en région parisienne

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Cours

Mardi 4 Décembre 2018, 11 :00
CPHT, Louis Michel
Domaines : hep-th

Titre : *Many-body quantum chaos : from black holes to hydrodynamics*

Orateur : **Saso Grozdanov (MIT)**

Résumé : *Chaos is a well-understood phenomenon within classical physics. According to its simplest definition, it stems from the dynamics of particles, which follow trajectories with extreme sensitivity to initial conditions. Two commonly associated phenomena are the exponential Lyapunov divergence of initially nearby trajectories and the butterfly effect. In many-body quantum physics, the situation is completely different. There, the very definition of what quantum chaos is remains unclear. Even more elusive are its characterisation and classification. In this four-hour lecture course, I will discuss exciting recent revival of interest in addressing these questions, which was largely ignited by studies of the physics of black holes.*
