SEMPARIS – Séminaires en région parisienne

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Seminar of the theory group of APC

Mardi 9 Novembre 2021, 14 :00
APC, seminar room 483A, contact roperpol@apc.in2p3.fr for Zoom meeting details
Domaines : gr-qc

Titre : *Gravitational Bremsstrahlung in the Post-Minkowskian expansion*

Orateur : **Massimiliano Maria Riva (IPhT)**

Résumé : *I will discuss the scattering of two compact objects interacting via gravity, using the so-called world-line Effective Field Theory approach in the post- Minkowskian expansion (i.e. expanding in the Newton's constant G but not in the velocities). In particular, I will focus on the computation of classical observables such as the total emitted momentum. This is obtained by phase-space integration of the graviton momentum weighted by the modulo squared of the radiation amplitude. It can be recast as an effective cut two-loop integral that I will solve using techniques borrowed from collider physics.*