

Remodeling the Effective One-Body Formalism in Post-Minkowskian Gravity

lundi 11 octobre 2021 17:30 (15 minutes)

Recent advances in the scattering amplitude-based approach to the Post-Minkowskian expansion of classical general relativity have demonstrated that this new approach holds the promise of significantly changing the efficiency of computations in general relativity. The results from the amplitude-based approach should be used to predict gravitational waveforms and other observables associated with two massive objects bound to each other. One strategy for going from the scattering regime to the bound-state regime is based on the Effective One-Body (EOB) formalism. In this context we provide a reformulation of the Effective One-Body Formalism that does not need non metric contributions, and we show how to fit all the know results from scattering up to the third post-Minkowskian order.

Author: VANHOVE, Pierre (IPhT CEA-Saclay)

Orateur: VANHOVE, Pierre (IPhT CEA-Saclay)

Classification de Session: Groupe de Travail: Formes d'onde