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Seminar of the theory group of APC

Mardi 28 Mai 2019, 14 :00
APC, 646A - Mondrian
Domaines : gr-qc

Titre : *Probing scalar-tensor theories with compact binaries*

Orateur : **Laura Bernard (LUTH, Meudon)**

Résumé : *Until now, observations and experiments have confirmed General Relativity (GR) as the best theory of gravity. The current gravitational wave interferometers, LIGO and Virgo, as well as the future space-based detector LISA, will permit to challenge further GR in the highly dynamical and strong field regime of gravity. In this talk, I will focus on alternative theories with an additional scalar degree of freedom, in relation to compact objects. In particular, I will describe the evolution of compact binary systems in these theories using the post-Newtonian formalism. I will show that one of the most interesting phenomenological consequence lies in finite-size effects.*