



Séminaire du Laboratoire de l'Accélérateur Linéaire

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Mardi 22 Avril 2014 à 11 :00

Building gravitational waveforms from precessing black hole binary systems for Advanced LIGO/Virgo

In the near future, gravitational wave astronomy will open a new window on the universe. The most promising source for a first detection with the upgraded LIGO-Virgo network of interferometers is the coalescence of compact binaries (i.e. binary systems composed of neutron stars and/or black holes). Such a first direct observation of gravitational waves will obviously be a fantastic scientific achievement in its own right. But most importantly, the detections to come will enable us to answer a number of open questions in astrophysics, fundamental physics and cosmology provided that we are able to estimate the parameters of the sources (masses, spins, luminosity distance...), which requires an accurate description of the waveforms. In this talk, I will present some recent developments in modeling the gravitational wave emission from compact binary systems through the whole coalescence - inspiral-merger-ringdown -, focusing on the problem of precessing systems.

Salle 101 du LAL - Bât. 200, Orsay

Thé et café seront servis 1/4 h avant le séminaire



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