

”Tidal effects up to second post-Newtonian order in inspiralling binary neutron-star systems”

There exist a lot of different models to describe the internal structure of neutron stars. Hopefully, we are now able to observe their tidal impact on gravitational waves emitted by binary neutron-star systems. Since GW170817 some exotic equations of state have thus been discarded. This first encouraging result calls for better constraints. The post-Newtonian formalism will play a crucial role for the extraction of the signal regarding tidal effects, especially in third generation detectors. In this talk, I will present the recent work done to increase the precision on the waveform.