

Tidal interactions in coalescing BNS: interfacing analytics, numerics and experiment

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I will briefly review the main theoretical elements of TEOBResumS, an effective-one-body-based waveform model, informed by numerical relativity simulations, apt to describe spin aligned black-hole binaries, through merger and ringdown and spin-aligned neutron-star (or black-hole-neutron star binaries) up to merger. This model has been successfully used to estimate the parameters of both GW170817 and GW150914. Through its “rush” implementation, based on the n-post-adiabatic description of the dynamics, this model can strongly reduce the systematics coming from the standard use PN-approximants for long-inspiral signals and/or taper the need of surrogate waveform models.

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Classification de Session: Groupe de travail: Formes d’onde