

Dynamical process impact on CBC GW background

jeudi 1 avril 2021 10:15 (15 minutes)

Nowdays we are able to resolve more and more compact binary merger events as our detector sensitivities improve. However the detected sources are loud and close events, suggesting a large number of non-resolved binary mergers participating to a CBC background. I will present this background computed from a population I/II stars ehanced with a young cluster population simulated from dynamical processes in the 2G detectors (LIGO, Virgo, KAGRA) frequency range. I will focus in particular on the contribution of BBHs that is expected to dominate. Finally I will discuss the detectability of the background with 2G detectors.

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Classification de Session: Contributed talks: populations of sources