

Abstract Submitted  
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**Gravitational Wave (GW) science in NINJA collaboration**

THILINA DAYANGA, SUKANTA BOSE, Washington State University — The Numerical INjection Analysis (NINJA) is a collaborative effort between members of the numerical relativity (NR) and GW data analysis communities. The purpose of NINJA project is to test the sensitivity of current gravitational wave searches using numerically generated Binary Black Hole (BBH) waveforms generated by different NR groups. The recent success in NR simulating the merger phase of the BBH coalescence helped NR community to construct more accurate waveforms for the BBH coalescence. NINJA-2 simulated data set was created injecting these full BBH waveforms. We coherently search for BBH signals in NINJA-2 data set using LIGO-VIRGO compact binary coalescence (CBC) multi-detector high-mass search pipeline. We report the efficiency of our search method and this will help us to search BBH signals in real multi-detector data. Coherent search is the optimal search method in Gaussian detector noise and NINJA-2 analysis will helpful to construct alternative methods to search in real data.

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