

Abstract Submitted
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A complete waveform model for compact binaries on eccentric orbits ELIU HUERTA, BHANU AGARWAL, DANIEL GEORGE, NCSA, University of Illinois at Urbana-Champaign, PRAYUSH KUMAR, CITA, University of Toronto — The detection of compact binaries with significant eccentricity in the sensitivity band of gravitational wave detectors will provide critical insights on the dynamics and formation channels of these events. In order to search for these systems and place constraints on their rates, we present an inspiral-merger-ringdown time domain waveform model that describes the GW emission from compact binaries on orbits with low to moderate values of eccentricity. We use this model to explore the detectability of these events in the context of advanced LIGO.

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