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Analytic gravitational waveforms for generic precessing compact binaries KATERINA CHATZIIOANNOU, Univ of Toronto, ANTOINE KLEIN, University of Mississippi, NEIL CORNISH, NICOLAS YUNES, Montana State University — Gravitational waves from compact binaries are subject to amplitude and phase modulations arising from interactions between the angular momenta of the system. Failure to account for such spin-precession effects in gravitational wave data analysis could hinder detection and completely ruin parameter estimation. In this talk I will describe the construction of closed-form, frequency-domain waveforms for fully-precessing, quasi-circular binary inspirals. The resulting waveforms can model spinning binaries of arbitrary spin magnitudes, spin orientations, and masses during the inspiral phase. I will also describe ongoing efforts to extend these inspiral waveforms to the merger and ringdown phases.

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