

Abstract Submitted
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Ambiguities in waveforms from precessing and recoiling black-hole binaries MICHAEL BOYLE, Cornell University — Precessing and recoiling black-hole binaries will present some of the most interesting and complex sources for gravitational-wave astronomy. These systems push the limits of our understanding and techniques in both analytical and numerical relativity. In particular, the model spacetimes we use to describe these systems exhibit asymptotic gauge symmetries that are entirely arbitrary and uncontrolled, yet have direct impact on the waveforms. We must understand these effects in our models, in order to understand the effects on astrophysical measurements from gravitational-wave astronomy. I will describe these symmetries, demonstrate their effects on real waveforms, and discuss methods for eliminating the ambiguities.

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