

Abstract Submitted
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Spin Precession: Breaking the degeneracy between Neutron Stars and Black Holes¹ KATERINA CHATZIOANNOU, NEIL CORNISH, ANTOINE KLEIN, NICOLAS YUNES, Montana State Univ — Gravitational waves from spin-precessing compact binaries carry a lot of information about the system that emitted them. However, our ability to extract the system's parameters, is related to the accuracy of the models we use when analyzing the data. More specifically, models that do not capture the information that comes from the precession of the orbital plane due to spin-orbit coupling lead to degeneracies between neutron stars and black holes. In this talk I will describe how if one includes such precessional effects in the models, this degeneracy breaks, allowing us to distinguish between standard neutron stars and alternative possibilities, such as black holes or exotic neutron stars with large masses and spins.

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