

Abstract Submitted
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Evidence for Spin in Compact Binary Coalescence: when can we trust it? VIVIEN RAYMOND, BEN FARR, WILL FARR, DIEGO FAZI, Northwestern University, JOHN VEITCH, Cardiff University, ILYA MANDEL, BEN AYLOTT, University of Birmingham, CHRISTIAN RÖVER, MPI Hannover, VICKY KALOGERA, Northwestern University — LIGO/Virgo will soon enter their advanced phases and, among the anticipated detections, compact binary coalescences are of special interest because these events are the most promising for extracting astrophysical parameters of source systems. In order to do so, spin effects in the parameter estimation analysis have to be included. Given the complexity inherent to the high dimensions and strong correlations of the spinning parameter space, one can ask what limits our ability to distinguish non-spinning versus spinning signals. One way to answer this question is to explore when a non-spinning signal becomes indistinguishable from a spinning signal. We use our Bayesian inference code to compute evidences for non-spinning and spinning models on various injections, and try to assess the location in parameter space where non-spinning signals can hide.

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