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Parameter Biases Introduced by Approximate Gravitational Waveforms BENJAMIN FARR, SCOTT COUGHLIN, JOHN LE, CONNOR SKEEHAN, VICKY KALOGERA, Dept of Physics and Astronomy & Center for Interdisciplinary Exploration and Research in Astrophysics (CIERA), Northwestern University — The production of the most accurate gravitational waveforms from compact binary mergers require Einstein's equations to be solved numerically, a process far too expensive to produce the $\sim 10^7$ waveforms necessary to estimate the parameters of a measured gravitational wave signal. Instead, parameter estimation depends on approximate or phenomenological waveforms to characterize measured signals. As part of the Ninja collaboration, we study the biases introduced by these methods when estimating the parameters of numerically produced waveforms.

Benjamin Farr
Northwestern University

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