

Abstract Submitted
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Accuracy Issues for Numerical Waveforms YOSEF ZLOCHOWER,
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CARLOS LOUSTO, Rochester Intstitute of Technology — We analyze the grav-
itational waveform error from the late inspiral, merger, and ringdown, and find that
using several lower-order techniques for increasing the speed of numerical relativ-
ity simulations actually lead to apparently nonconvergent errors. Even when using
standard high-accuracy techniques, rather than seeing clean convergence, where the
waveform phase is a monotonic function of grid resolution, we find that the phase
tends to oscillate with resolution, possibly due to stochastic errors induced by grid
refinement boundaries.

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