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Gauge-Fixing Waveforms in Numerical Relativity[1] DANTE IOZZO, MICHAEL BOYLE, SAUL TEUKOLSKY, Cornell University, SXS COLLABORATION — Asymptotic waveforms of the gravitational wave strain and the Weyl scalars have infinite-dimensional gauge freedoms expressed by the BMS group. In order to compare numerical relativity waveforms across different simulations, or even different grid resolutions of a simulation, it is critical to systematically understand and fix these gauge freedoms. This also will become an important factor for surrogate waveforms and phenomenological models that require numerical waveforms. We present preliminary results using a method for fixing these BMS gauge freedoms.

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