

Abstract Submitted
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Binary black hole simulations for surrogate modeling DANIEL HEMBERGER, California Institute of Technology, SXS COLLABORATION — Analytic or data-driven models of binary black hole coalescences are used to densely cover the full parameter space, because it is computationally infeasible to do so using numerical relativity (NR). However, these models still need input from NR, either for calibration, or because the model is agnostic to the underlying physics. We use the Spectral Einstein Code (SpEC) to provide a large number of simulations to aid the construction of a NR surrogate model in a 5-dimensional subset of the parameter space. I will present an analysis of the simulations that were used to construct the surrogate model. I will also describe the infrastructure that was needed to efficiently perform a large number of simulations across many computational resources.

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