Abstract Submitted
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Efficient simulations of single high-spin black holes with a new gauge condition YITIAN CHEN, Cornell University — High-spin binary black hole (BBH) simulations are computationally expensive. As the spin increases, the region where an excision surface can be placed becomes narrower. This makes the evolutions even more demanding because of the accuracy required to be able to find a suitable excision surface. We explore a new gauge condition for generalized harmonic systems to broaden the region where the excision surface is placed, and present preliminary results from evolutions of a single high-spin black hole. Our objective is the application of this new gauge condition to high-spin BBH evolutions.

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