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Simulations of high-spin black-hole binaries MARK SCHEEL, Caltech, GEOFFREY LOVELACE, California State University, Fullerton, SXS COLLABORATION — Black holes can in principle have spins up to the Kerr limit $a = 1$, and some (highly uncertain) estimates from X-ray binaries yield $a > 0.98$. Because binaries with highly-spinning black holes may be detectable by LIGO, it is important to be able to simulate and understand these systems. We present binary black hole simulations with large spins, including a generic, precessing simulation with a spin of $a > 0.99$ on one of the black holes. We discuss some of the difficulties with simulating high-spin black holes and how to overcome them.

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