Detecting Near-Extremal Binary Black Holes DANIEL HEM-
BERGER, California Institute of Technology, SXS COLLABORATION — There
is an ongoing effort in the gravitational wave astronomy community to construct
a template bank for Advanced LIGO that includes gravitational waveforms from
binary black hole systems with high mass ratios and spins. Using numerical relativ-
ity simulations performed with the Spectral Einstein Code, we assess the prospects
for detection and parameter estimation of binaries with spins above the expected
template bank cutoff spin. This analysis is restricted to equal-mass, non-precessing
binaries.

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