

Exploring precessing binaries with numerical relativity

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Numerical relativity simulations are crucial to gravitational-wave measurements of binary black holes. To date simulations have made only a sparse and sporadic covering of the parameter space of generic (precessing) binaries. We present a catalogue of simulations that for the first time systematically covers the most important volume of parameter space for current observations. Within this parameter space we identify sub-dominant physical effects that are not included in available waveform models, but which may significantly impact GW measurements over the coming year.