Eccentric Compact Object Mergers

WILLIAM EAST, FRANS PRETORIUS, Princeton University, BRANSON STEPHENS, University of Wisconsin-Milwaukee — Mergers of black holes and neutron stars are expected to be an important source of gravitational radiation for upcoming observatories. Such mergers are also a leading candidate for short gamma-ray burst progenitors and may be source for other electromagnetic counterparts. An interesting class of compact object binaries are those that form in dense stellar regions such as globular clusters and may merge with significant eccentricity. We present results from general-relativistic hydrodynamics simulations that are performed in order to explore the dynamics and possible observational signatures of such systems.