

Abstract Submitted  
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**Magnetic field effects on non-vacuum binaries** MATTHEW ANDERSON, ERIC HIRSCHMANN, Brigham Young University, LUIS LEHNER, Louisiana State University, STEVEN LIEBLING, Long Island University, PATRICK MOTL, Indiana University Kokomo, DAVID NEILSEN, Brigham Young University, CARLOS PALENZUELA, Albert Einstein Institut, JOEL TOHLIN, Louisiana State University — Observational evidence suggests that sizeable magnetic fields are present in a fair number of neutron star binaries and neutron star-black hole binaries. These magnetic fields can have a strong influence on the fluid's dynamics, the energetics of the system and even the production of gravitational radiation. We present results of non-vacuum binary neutron star and black hole- neutron star collisions and examine the influence of magnetic fields on the gravitational waves, fluid structure and dynamical behavior of the system.

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