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Gravitational waves and the formation of accretion disks in the merger of black hole-neutron star binaries MICHAEL BESSELMAN, Brigham Young University — We describe our work on the evolution of binary systems that consist of a neutron star and a black hole. With a detailed study of the evolution of such systems we are able to compute gravitational wave signatures for the late in spiral and merger phases for these binaries. In addition we explore some of the conditions required to create an accretion disk from such systems. We will present results for these gravitational wave signatures and accretion disks for neutron stars that are both magnetized and unmagnetized.

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