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Loud and Bright: Gravitational and possible electromagnetic signals induced by binary neutron star mergers CARLOS PALENZUELA, Canadian Institute for Theoretical Astrophysics, LUIS LEHNER, Perimeter Institute, MARCELO PONCE, University of Guelph, CHRIS THOMPSON, Canadian Institute for Theoretical Astrophysics, STEVE LIEBLING, Long Island University, DAVE NEILSEN, ERIC HIRSCHMANN, Brigham Young University, MATT ANDERSON, Crest, Indiana University, PATRICK MOTL, Indiana University Kokomo
— Our main goal is to investigate how the strongly gravitating and highly dynamical behavior of magnetized binary neutron stars can affect the plasma in the magnetosphere in such a way that powerful electromagnetic emissions can be induced, as well as stressing its connection with gravitational waves produced by the system. Such phenomena is a natural candidate for bright (EM) and loud (GW) emissions, as pulsars are strong electromagnetic emitters on one hand, and merging binary neutron stars are powerful sources of gravitational radiation.

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