

Abstract Submitted
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Radiation

Transport in Dynamic Spacetimes JEREMY SCHNITTMAN, JOHN BAKER, NASA/GSFC, ZACHARIAH ETIENNE, WVU, BRUNO GIACOMAZZO, University of Trento, BERNARD KELLY, NASA/GSFC — We present early results from a new radiation transport calculation of gas accretion onto merging binary black holes. We use the Monte Carlo radiation transport code Pandurata, now generalized for application to dynamic spacetimes. The time variability of the metric requires careful numerical techniques for solving the geodesic equation, particularly with tabulated spacetime data from numerical relativity codes. Using a new series of general relativistic magneto-hydrodynamical simulations of magnetized flow onto binary black holes, we investigate the possibility for detecting and identifying unique electromagnetic counterparts to gravitational wave events.

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