

Abstract Submitted
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Radiated Quantities in Binary Black Hole Collisions¹ LORENA MAGANA ZERTUCHE, Center for Relativistic Astrophysics, School of Physics, Georgia Institute of Technology, USA, JAMES HEALY, Center for Computational Relativity and Gravitation, Rochester Institute of Technology, USA, DEIRDRE SHOEMAKER, Center for Relativistic Astrophysics, School of Physics, Georgia Institute of Technology, USA — One of the more interesting and exotic systems in the universe is a system of two black holes. When black holes orbit each other, they will eventually collide, forming a single black hole with a mass almost equal to the sum of the two initial masses. This missing “mass,” up to ten percent, is converted into gravitational waves making these systems one of the most energetic in the universe. The systems also radiate angular momentum as they settle down to a Kerr black hole. I present work toward modeling the radiated angular momentum and energy as functions of the binary system’s initial parameters for generic binaries.

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