

Abstract Submitted
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Gravitational Waves from Core-Collapse Supernova using CHIMERA: Analysis of the Gravitational Signatures¹ KONSTANTIN YAKUNIN, PEDRO MARRONETTI, STEPHEN BRUENN, Florida Atlantic University, JOHN BLONDIN, North Carolina State University, AUSTIN CHERTKOW, University of Tennessee - Knoxville, CHARLOTTE DIRK, Florida Atlantic University, WILLIAM R. HIX, Oak Ridge National Laboratory, ERIC LENTZ, University of Tennessee - Knoxville, O.E. BRONSON MESSER, ANTHONY MEZZACAPPA, Oak Ridge National Laboratory — Gravitational radiation, together with neutrino radiation, is the most important observational tool for understanding the dynamics of the central region of core-collapse supernova explosions. With the advent of the next generation of gravitational wave observatories such as Advanced LIGO, it is imperative to gain insight on how these signals are generated. We present the analysis of gravitational radiation corresponding to axisymmetric simulations performed with the CHIMERA code with emphasis in the origin of each part of the wavetrains and their interpretation in the framework of the collapse dynamics.

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