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Gravitational waves from corecollapse supernova using CHIMERA KONSTANTIN YAKUNIN, STEPHEN BRUENN, PEDRO MARRONETTI, Florida Atlantic University, SHIN YOSHIDA, Albert Einstein Institute — We perform numerical simulations of core-collapse supernova using the multi-dimensional hydrodynamics code CHIMERA that includes realistic nuclear reactions as well as spectral neutrino transport. We present gravitational wave signals from progenitor stars with different rotational profiles, studying the effects of neutrino radiation in the emission of gravitational waves. These GW templates can be used to enhance the search for supernovae signals in current and future GW detectors.

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