

SIMULATIONS OF MERGING WHITE DWARFS

Chris L. Fryer

Los Alamos National Laboratory

Mergers of compact objects explain a wide variety of astrophysical objects. Mergers of white dwarfs have been proposed to explain anything from peculiar stars to type Ia supernovae and Gamma-Ray bursts. I will review the basic physical processes involved in such mergers and the current state-of-the-art numerical simulations of these mergers, with a particular emphasis on how the results of these calculations are reflected in observations (both past and future).