

# The explosion dynamics of core-collapse supernovae and its multi-messenger signatures

*Thursday, 12 September 2013 14:00 (20 minutes)*

Based on our three-dimensional hydrodynamic simulations of core-collapse supernovae (CCSN) including spectral neutrino transport, we present the gravitational-wave signatures emitted from a wide variety of SN progenitors. We also discuss how we can learn about the supernova mechanism by taking a correlation analysis between the gravitational-wave and neutrino signatures particularly in the case of the next Galactic source.

**Primary author:** KOTAKE, Kei (Fukuoka University)

**Presenter:** KOTAKE, Kei (Fukuoka University)

**Session Classification:** Gravitational Waves II: Multi-messenger Analysis

**Track Classification:** Gravitational Waves