

# Supernova Neutrino Observation in the JUNO Experiment

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The Jiangmen Underground Neutrino Observatory (JUNO) is a multi-purpose neutrino experiment under construction in China, designed with a 20 kton liquid scintillator detector. For the next galactic core-collapse supernova (SN), JUNO is promising to register full flavors of SN burst neutrinos with quite high statistics and a low energy threshold down to 0.2 MeV. A SN trigger system with the real-time alert in JUNO is currently being designed and in the near future will be connected to astronomical alert communities, e.g. SNEWS. Along with other neutrino detectors, gravitational-wave detectors, and observations in various electromagnetic channels, a detailed and complete astrophysical multi-messenger picture will emerge and definitely help us to extend our understanding of SNe in frontiers of both astrophysics and particle physics.

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