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# Preparing to Observe the Next Galactic Supernova with IceCube

The next Galactic supernova will be a historic opportunity for multi-messenger astronomy. A core collapse will produce a neutrino burst visible up to half a day before electromagnetic radiation from the explosion, providing an early warning for optical follow-up and valuable insight about the proto-neutron star. Since local supernovae are exceedingly rare, it is critical that neutrino detectors provide prompt alerts after the arrival of a burst. The IceCube Neutrino Observatory is currently the world's largest neutrino detector and is operating with >99% uptime, making it a crucial component of the worldwide network of detectors known as the SuperNova Early Warning System (SNEWS). We will discuss the sensitivity of IceCube to supernovae near the Milky Way and describe the "data challenges" used to ensure the readiness of the detector. We will also discuss the coordination of IceCube alerts with other neutrino detectors in SNEWS.

## Mini-abstract

IceCube supernova "data challenges" and coordination of IceCube alerts with SNEWS

## Experiment/Collaboration

IceCube Neutrino Observatory

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