Detecting supernova neutrino bursts with SK-Gd prototype: EGADS

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Supernova neutrino burst

1 to 3 galactic supernova expected per century → Rare event

- $\nu$ burst is few hours (few minutes for WR stars) before the optical burst
- We need to be ready to detect the $\nu$ burst, and be fast enough to warn researchers looking for the optical burst
EGADS: A standalone detector for supernovae $\nu$ study

- Super-Kamiokande-Gd prototype now converted as a **standalone** Gd-loaded water Čerenkov detector for SNe $\nu$ burst study
- Able to detect $\nu$ burst from anywhere in the Milky Way
- Plan to provide **automatic**, **autonomous**, and **immediate** alarm to the **whole community** in case of SN burst detection, via automatic phone calls and mails
- More details in the poster, please come to have a look!