



Detecting supernova neutrino bursts with SK-Gd prototype: EGADS

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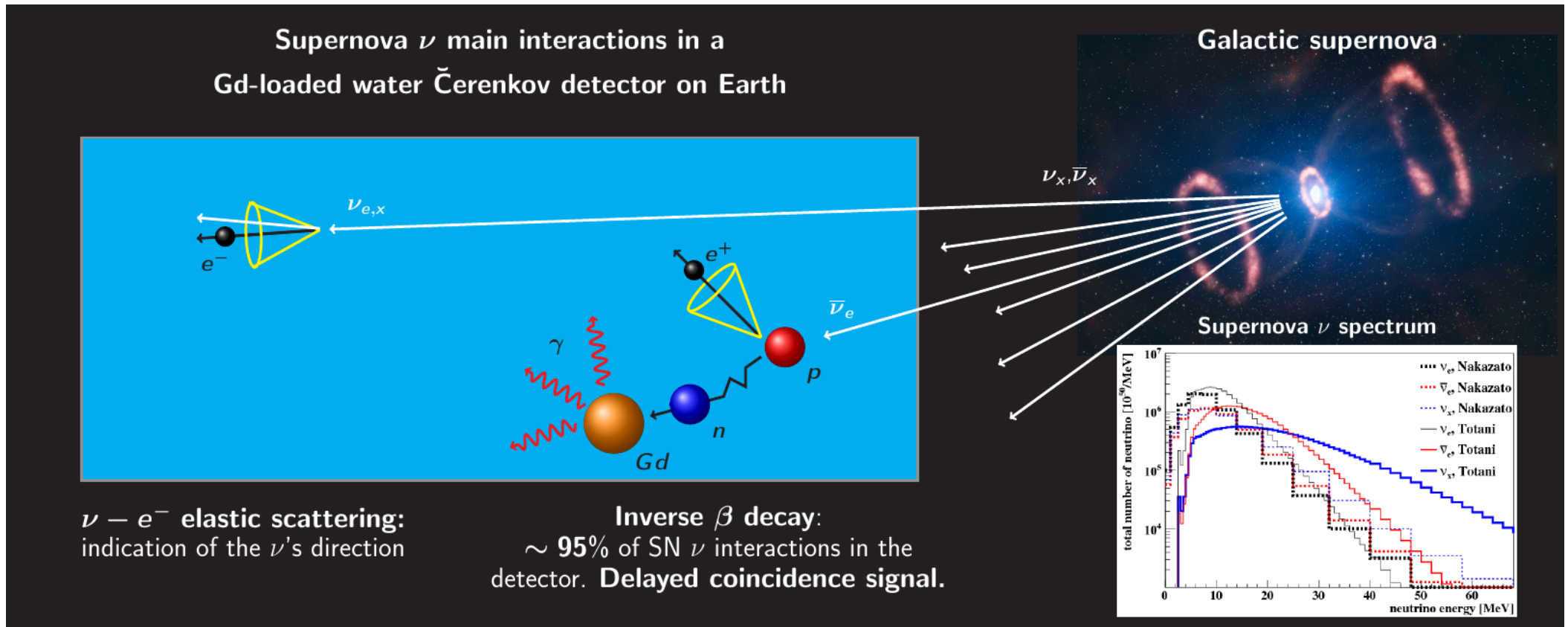
on behalf of Super-Kamiokande collaboration

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Supernova neutrino burst



- ▶ 1 to 3 galactic supernova expected per century → **Rare event**
- ▶ ν burst is **few hours** (**few minutes** for WR stars) before the optical burst
- ▶ We need to **be ready** to detect the ν burst, and **be fast** enough to warn researchers looking for the optical burst

EGADS: A standalone detector for supernovae ν study

- ▶ Super-Kamiokande-Gd prototype now converted as a **standalone** Gd-loaded water Čerenkov detector for SNe ν burst study
- ▶ Able to detect ν 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!

