



Contribution ID: 405

Type: Poster

## HALO-1kT and other supernova detectors

When the next galactic supernova explodes, we'll need to be ready to get the most of its neutrino signal. HALO-1kT is a 1 kton lead-based supernova detector that will be possibly be built at Laboratori Nazionali del Gran Sasso (LNGS) in Italy. Its sensitivity to Charged-Current electron neutrinos makes it complementary to most of the other supernova detectors, mainly based on water or liquid scintillator. In the present work, we implement multi-dimensional, Monte Carlo based likelihood analyses in order to assess the contribution HALO-1kT can give in reconstructing the detected time-integrated fluxes (fluences) both alone or combined with two major supernova detectors as Super-Kamiokande and the Jiangmen Underground Neutrino Observatory (JUNO).

### Mini-abstract

Proposed HALO-1kT is a robust detector that could help constrain the  $\nu_e$  fluence.

### Experiment/Collaboration

HALO-1kT collaboration

**Primary author:** Dr GALLO ROSSO, Andrea (Laurentian University)

**Presenter:** Dr GALLO ROSSO, Andrea (Laurentian University)

**Session Classification:** Poster Session 1