

## Neutrino physics with the XMASS liquid xenon detector

XMASS is a multi-purpose experiment using a single-phase liquid-xenon scintillator detector located underground at Kamioka Observatory in Japan. Thanks to a low-energy threshold and low background, the XMASS detector has a potential to pursue various topics in a field of neutrino physics. For example, XMASS has a possibility to detect galactic supernova neutrinos via coherent elastic neutrino-nucleus scattering. We have also searched for two-neutrino double electron capture on  $^{124}\text{Xe}$  and set the most stringent lower limit on the half-life at  $2.1 \times 10^{22}$  years at 90% confidence level. In this poster, we will discuss the latest results on neutrino related subjects from XMASS.

### Authorship annotation

for the XMASS Collaboration

### Session and Location

Wednesday Session, Poster Wall #1 (Robert-Schumann-Room)

### Poster included in proceedings:

yes

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**Track Classification:** Poster (participating in poster prize competition)