

# Latest results from solar neutrino measurement in the Super-Kamiokande detector

*Friday, 21 June 2024 17:30 (2 hours)*

Super-Kamiokande (SK), a 50 kton water Cherenkov detector in Japan, is observing neutrinos from various natural sources. SK studies the effects of both the solar and terrestrial matter density on neutrino oscillations: a distortion of the solar neutrino energy spectrum would be caused by the edge of the Mikheyev-Smirnov-Wolfenstein resonance in the solar core, and terrestrial matter effects would induce a day/night solar neutrino flux asymmetry. In this poster presentation, we overview the latest solar neutrino results using the data including the SK-Gd era, for example, the precise measurement of 8B solar neutrino flux, its energy spectrum, and oscillation parameters. In addition to them, we also present the time variation of observed solar neutrino flux and a possible correlation between the neutrino flux and the solar activity.

## Poster prize

No

## Given name

Yuuki

## Surname

Nakano

## Second affiliation

## Gender

Male

## Collaboration (if any)

Super-Kamiokande

## First affiliation

Faculty of Science, the University of Toyama

## Institutional email

ynakano@sci.u-toyama.ac.jp

**Primary author:** NAKANO, Yuuki (Faculty of Science, the University of Toyama)

**Presenter:** NAKANO, Yuuki (Faculty of Science, the University of Toyama)

**Session Classification:** Poster session and reception 2

**Track Classification:** Solar neutrinos