Contribution ID: **134** Type: **Oral presentation**

Highlight talk from Super-Kamiokande

Thursday, 12 July 2018 12:00 (30 minutes)

Super-Kamiokande (SK), a 50 kton water Cherenkov detector in Japan, is observing both atmospheric and solar neutrino neutrinos and is searching for supernova (relic) neutrinos, proton decays as well as dark matter like particles. The installation of new front-end electronics in 2008 marks the beginning of the 4th phase of SK (SK-IV).

A three-flavor oscillation analysis was conducted with the atmospheric neutrino data in order to study the mass hierarchy, the leptonic CP violation term, and other oscillation parameters. In addition, the observation of solar neutrinos gives precise measurements of the energy spectrum and oscillation parameters. Using more than 20 years data, SK covers more than 1.5 solar
activity cycles and this enables us to perform an analysis about a possible correlation between solar neutrino flux and 11 year activity cycle.

In this presentation, we overview the recent results from SK and give the prospect toward the future project of SK-Gd.

Primary author: Dr NAKANO, Yuuki (Kamioka Observatory)

Presenter: Dr NAKANO, Yuuki (Kamioka Observatory)

Session Classification: Main Conference Session