Contribution ID: **19** Type: **Talk**

Low energy neutrinos in Super-Kamiokande

Monday 12 September 2022 16:00 (20 minutes)

The Super-Kamiokande (SK) experiment is a 50 kton water Cherenkov detector located in the Kamioka Observatory in Japan and in operation since 1996, observing neutrinos and anti-neutrinos from many different sources. In 2020, SK moved to the SK-Gd phase, in which gadolinium sulfate octahydrate was added to the water in the detector to improve the detection efficiency of neutrons. Such neutrons identify inverse beta reactions of low energy electron anti-neutrinos. We report an overview of the recent results of low energy neutrino analyses in SK such as solar neutrinos, supernova neutrinos, and supernova relic neutrinos, as well as the achieved improvements and prospects after the gadolinium loading.

Is this abstract from experiment?

Yes

Name of experiment and experimental site

Super-Kamiokande Experiment

Is the speaker for that presentation defined?

Yes

Details

Lucas Nascimento Machado
INFN Naples/University of Naples

Internet talk

Maybe

Author: NASCIMENTO MACHADO, Lucas (University of Naples/INFN Naples)

Presenter: NASCIMENTO MACHADO, Lucas (University of Naples/INFN Naples)

Session Classification: High Energy Particle Physics