



Contribution ID: 273

Type: **Parallel talk**

Progress of double-weak decays and solar pp neutrinos in PandaX-4T experiment

Tuesday 29 August 2023 14:30 (15 minutes)

The PandaX-4T experiment, located at the China Jinping Underground Laboratory, is currently running a dual-phase xenon time projection chamber with 3.7 tonne of liquid xenon target. Benefitting from the 2400-meter overburden and the careful selection of detector materials, the PandaX-4T experiment has achieved an extremely low background level. Although originally designed as a dark matter detector focused on the O(keV) energy region, the PandaX-4T detector also shows a great performance in the O(MeV) energy region, leading to opportunities of other rare-event searches, for example the neutrinoless double-beta decay of Xe-136 nucleus. In this talk, I will present the recent progress of extending the data analysis in the PandaX-4T experiment from O(keV) to O(MeV) energy region, including physics results of search for double-weak decays of different xenon isotopes as well as solar pp neutrino scatterings.

Submitted on behalf of a Collaboration?

Yes

Primary author: XIAO, Xiang (Sun Yat-sen University (China))

Presenter: XIAO, Xiang (Sun Yat-sen University (China))

Session Classification: Dark matter and Neutrino

Track Classification: Neutrino physics and astrophysics