Contribution ID: **147** Type: **Contributed talk**

WIMP search from the XMASS-I fiducial volume data with background prediction

Wednesday 26 July 2017 14:30 (15 minutes)

XMASS is multi-purpose experiment using a single phase liquid xenon technology located underground at Kamioka Observatory in Japan.
XMASS-I detector aims mainly for direct detection of dark matter particles with 832 kg of liquid xenon.
The key idea to reduce the background at low energies in XMASS is to use liquid xenon itself as a shield. The clean core of the 832 kg liquid xenon volume is used as sensitive fiducial volume by eliminating the volume near the wall which suffers from beta and gamma rays from the outside.

In this talk, we will present the physics results for our WIMP search using this fiducial volume of the XMASS-I detector with precise prediction of background events.

Authors: TAKEDA, Atsushi (University of Tokyo); Dr XMASS COLLABORATION

Presenter: TAKEDA, Atsushi (University of Tokyo)

Session Classification: Dark Matter

Track Classification: Dark Matter