



Contribution ID: 286

Type: Talk

【374】 Dark matter search with the XENON1T experiment

Thursday 24 August 2017 17:30 (15 minutes)

Despite the overwhelming evidence for dark matter from astronomical and cosmological indications at various scales, a clear evidence of a particle which can explain these observations remains absent. XENON1T is a liquid xenon detector capable of exploring a large fraction of the available parameter space for weakly interacting massive particles (WIMPs). The experiment aims to detect WIMP-nucleon interactions using a dual phase time-projection-chamber (TPC) with a total target mass of about 2 tons. The sensitivity to spin-independent WIMP-nucleon cross sections is expected to reach 10^{-47} cm² at a WIMP mass of 50 GeV after two ton-years of exposure. In this talk, current status of the experiment will be presented.

Primary author: KAZAMA, Shingo (University of Zurich)

Presenter: KAZAMA, Shingo (University of Zurich)

Session Classification: Nuclear, Particle-and Astrophysics (TASK-FAKT)

Track Classification: Nuclear, Particle- and Astrophysics (TASK - FAKT)