

Recent status and prospects of CDEX dark matter search at CJPL

Monday, 8 July 2024 15:20 (20 minutes)

The CDEX program pursues the direct detection of light dark matter candidates with an array of germanium detectors since 2009 at the deepest operating underground site, China Jinping underground laboratory (CJPL) located in Sichuan, China, with a rock overburden of about 2400m. Searches of modulation effect of light WIMPs, WIMPs-nucleus interaction via Migdal effect, dark photon model, solar axions and axion-like particles have been recently carried out based on the CDEX-1 and CDEX-10 experiments. An upgraded dark matter experiment of the CDEX-50 is proposed and on-going together with the R&D programs on many key low radioactivity technologies. Results and the prospects of the CDEX dark matter program will be described and discussed.

Primary author: YANG, Litao (Tsinghua University)

Presenter: YANG, Litao (Tsinghua University)

Session Classification: Parallel 1

Track Classification: Parallel session: Direct detection