

CDEX dark matter experiment: status and prospects

Monday 24 July 2017 17:00 (15 minutes)

The China Dark Matter Experiment (CDEX) aims at direct searches of light Weakly Interacting Massive Particles (WIMPs) at the China Jinping Underground Laboratory (CJPL) with an overburden of about 2400m rock. Results from a prototype CDEX-1 994 g p-type Point Contact Germanium(pPCGe) detector are reported. Research programs are pursued to further reduce the physics threshold by improving hardware and data analysis. The CDEX-10 experiment with a pPCGe array of 10 kg target mass range is being tested. The evolution of CDEX program into “CDEX-1T Experiment” with ton-scale germanium detector arrays, aiming at both Dark Matter and Neutrinoless Double Beta Decay, will also be introduced in this study.

Authors: Prof. MA, Hao (Tsinghua University); Prof. YUE, Qian (Tsinghua University); Prof. ZENG, Zhi (Tsinghua University); Prof. KANG, Kejun (Tsinghua University); Prof. CHENG, Jianping (Tsinghua University); Prof. LI, Yuanjing (Tsinghua University); Prof. LI, Jianmin (Tsinghua University); Prof. LI, Yulan (Tsinghua University); Dr XUE, Tao (Tsinghua University)

Presenter: Prof. MA, Hao (Tsinghua University)

Session Classification: Dark Matter

Track Classification: Dark Matter