

Neutrino Physics and Dark Matter Searches with sub-keV Germanium Detectors

Henry T. Wong

**Institute of Physics, Academia Sinica
Nankang 11529, Taipei, Taiwan**
htwong@phys.sinica.edu.tw

The TEXONO-CDEX Collaboration has been pursuing a research program on low energy neutrino and dark matter physics at the Kuo-Sheng Neutrino Laboratory (KSNL) in Taiwan and in the China Jinping Underground Laboratory (CJPL) in China. The present theme is on experiments based on germanium detectors with sub-keV sensitivities to probe low-mass WIMP Dark Matter and towards observation of neutrino-nucleus coherent scattering. Highlights on the results, status and plans of our physics and detector R&D programs are presented.

Reference:

1. Home Page: <http://hepmail.phys.sinica.edu.tw/~texono>
2. "New Limits on Spin-Independent and Spin-Dependent Couplings of Low-Mass WIMP Dark Matter with a Germanium Detector at a Threshold of 220 eV", S.T. Lin et al., TEXONO Collaboration, Phys. Rev. **D** 76 (Rapid Comm.), 061101 (2009).
3. "Dark Matter Search with sub-keV Germanium Detectors at the China Jinping Underground Laboratory" Qian Yue and Henry. T. Wong, arXiv:1201.5373 (2012).
4. Presentations in this conference by M. Deniz on "Measurement of Neutrino-Electron Scattering and Constraints on New Physics", and by Y.C. Wu on "Status of CJPL and CDEX experiment".