

# Research on Coherent Neutrino Nucleus Elastic Scattering in the TEXONO Program

*Thursday, June 13, 2024 9:40 AM (20 minutes)*

We will present the latest physics and detector R&D results and plans on the pursuit of neutrino nucleus elastic scattering at the Kuo-Sheng Reactor Neutrino Laboratory in Taiwan, with sub-keV germanium ionization detectors [1]. This includes recent efforts in quantifying and studying the quantum-mechanical coherency effects of the interactions [2,3]. Future possibilities to continue and expand the program with reactor laboratories in China and India will be raised.

1. A.K. Soma et al., Nucl. Instrum. Meth. A 836, 67 (2016).
2. S. Kerman et al., Phys. Rev. D 93, 113006 (2016).
3. V. Sharma et al., Phys. Rev. D 103, 092002 (2021).

**Primary author:** Prof. WONG, Henry (Institute of Physics, Academia Sinica, Taiwan.)

**Presenter:** Prof. WONG, Henry (Institute of Physics, Academia Sinica, Taiwan.)

**Session Classification:** Talks