

# Measurement of reactor neutrinos using plastic scintillator cube

*Tuesday, 19 September 2023 11:05 (20 minutes)*

A new reactor neutrinos detector using a plastic scintillator is developed. This detector is compact and intended to measure  $\bar{\nu}_e$  from nuclear reactors by ground-based installation. The compact one-ton class detector for inverse beta decay (IBD) must be installed close to the  $\bar{\nu}_e$  source. For this purpose, the detector is being developed near the core of a research reactor. For ground-based detectors, it is an important issue to distinguish the  $\bar{\nu}_e$  signals from background events. In this study, a plastic scintillator cubic detector with high position resolution will be developed to improve the background event rejection in the prompt of IBD signal. The status and plan of neutrino monitor experiments at research reactor are described.

## Abstract title

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**Session Classification:** Neutrino detection & technology