

## Poster: Nearest neutrino detector at Hanbit nuclear power plant.

*Wednesday, October 26, 2022 3:45 PM (5 minutes)*

We report a conceptual design of the nearest neutrino detector, which primarily aims to search for the sterile neutrino oscillation at  $\Delta m_{41}^2 \sim 2eV^2$ . The joint study of RENO and NEOS experiments showed a hint for the sterile neutrinos at  $\Delta m_{41}^2 \sim 2.4eV^2$  and  $\sim 1.7eV^2$ , which overlap with the allowed region by the Reactor Anti-neutrino Anomaly. This Nearest detector can also be used for precision measurements of the flux and spectrum of the reactor electron antineutrino ( $\bar{\nu}_e$ ) and the separation of  $\bar{\nu}_e$  spectra from  $^{235}U$  and  $^{239}Pu$ . In this presentation, we report the detector concept of the nearest reactor neutrino detector and physics cases.

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**Session Classification:** Poster under break time