Contribution ID: **486** Type: **poster**

Monitoring Reactor Anti-neutrinos with T2K-ND280 Technolgy

Preventing nuclear proliferation is a high priority for the international community. Monitoring of nuclear facilities to detect unauthorised removal of fissile materials from operational cores is central to this. Anti-neutrino flux and spectral information can be used to determine instantaneous reactor power, and, relative core content of uranium and plutonium.

A tonne-scale prototype device has been developed and demonstrated at the University of Liverpool based on the design of the T2K Near Detector Calorimeter. The detector design has proven to be robust and reliable while the use of plastic scintillator and SiPMs is ideal for use in close proximity of nuclear reactors. The prototype detector is currently undergoing field tests at the Wylfa Magnox Reactor, Anglesey, UK . This talk will give an overview of the project motivation, detector commissioning and field-testing progress.

Author: COLEMAN, Jon (University of LIverpool)

Presenter: COLEMAN, Jon (University of LIverpool)

Track Classification: Neutrino Physics