

## **A 3D grid-like neutrino near detector with a water target, WAGASCI**

*Saturday 31 January 2015 09:50 (25 minutes)*

A test experiment, T-59, to develop a 3D grid-like neutrino near detector with a water target for measurement of neutrino cross sections at the T2K near detector hall was approved by J-PARC PAC. We are developing the detector to reduce the uncertainty on neutrino cross sections for T2K oscillation analyses. A new idea, a 3D grid-like structure of scintillator bars, is adopted to detect tracks of charged particles with 4pi angular acceptance and high efficiency. Advantages of this detector over the current T2K neutrino near detector are larger angular acceptance and larger mass ratio of water to scintillator bars. The current status of the test experiment and the future potential to upgrade the detector to a near detector of T2HK will be presented.

### **Length (min.) request (including discussion time)**

25 min.

**Primary author:** Dr MINAMINO, Akihiro (Kyoto University)

**Presenter:** Dr MINAMINO, Akihiro (Kyoto University)

**Session Classification:** Near Detectors

**Track Classification:** Near Detectors