

# NNN13: International Workshop on Next generation Nucleon Decay and Neutrino Detectors

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## IsoDAR and the DAE $\delta$ ALUS program

*Tuesday 12 November 2013 18:00 (20 minutes)*

IsoDAR is a novel experimental concept to use a high power, low energy cyclotron to produce an intense source of electron antineutrinos. Such a source, when combined with a liquid scintillator based detector such as KamLAND, can provide a direct probe of the reactor antineutrino anomaly and, in general, a definitive probe of the sterile neutrino. Further, IsoDAR can differentiate between one and two sterile neutrinos in many cases as well as collect a sample of antineutrino-electron elastic scattering events that is approximately five times greater than has been collected to date. The experiment will be introduced within the context of the overall DAE $\delta$ ALUS program for discovering CP violation in the neutrino sector and recent developments will be discussed.

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**Session Classification:** Future Water Cherenkov Detectors

**Track Classification:** Contributed talk