

NUFACT2014, XVIth International Workshop on Neutrino Factories and Future Neutrino Beam Facilities

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Type: **not specified**

IsoDAR and DAE δ ALUS

Friday 29 August 2014 12:00 (30 minutes)

IsoDAR is a novel experimental concept to use a powerful low energy cyclotron to produce a 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 scenarios 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 δ ALUS program for discovering CP violation in the neutrino sector and recent progress will be discussed.

WG3: Accelerator Physics (Yes/No)

No

WG2: Neutrino Scattering Physics (Yes/No)

No

WG4: Muon Physics (Yes/No)

Yes

WG1: Neutrino Oscillation Physics (Yes/No)

Yes

Type of presentation

Oral presentation

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Session Classification: WG1: Neutrino Physics