Contribution ID: **48** Type: **not specified**

IsoDAR and DAEdALUS

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 DAEδALUS 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