Project: India-based Neutrino Observatory (INO)

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Why INO (India-based Neutrino Observatory)?

Abstract:

- The genesis of the India based Neutrino Observatory project is described briefly. The flagship experiment is based on a 51,000 ton magnetised iron calorimeter (ICAL) which aims to determine the mass ordering of the 3 tiny neutrino masses through a measurement of atmospheric muon neutrinos and muon anti-neutrinos. An 85 ton 4m×4m×11 layer mini-ICAL detector with 10 glass RPCs has been built and is presently taking data at the rented premises of INO at Madurai. The possibility of a shallow depth ICAL with an efficient cosmic veto detector is being examined and shows promise.

About the Speaker:

- Dr. Vivek Datar is a senior professor at the TIFR, Mumbai since May 2015. He obtained his PhD from the University of Mumbai in 1983 and did post-doctoral work at IPN, Orsay, France and SUNY (Stony Brook), USA. Before moving to TIFR he was at the Nuclear Physics Division, BARC [1975-2015]. He was a senior professor of the Homi Bhabha National Institute (HBNI) and Dean-Academic (Physical & Mathematical Sciences), BARC. He was also the Head NPD and an Adjunct Professor at the School of Natural Sciences, TIFR. His areas of interest include low energy nuclear physics, tests of conservation laws and symmetries and neutrino physics. Presently he is the Project Director of the India based Neutrino Observatory (INO) project, which aims to build a large underground laboratory at Pottipuram, Tamil Nadu.