



Project: India-based Neutrino Observatory (INO)

Prof. Amitava Raychaudhuri, University of Calcutta, Kolkata

Neutrino mass: An evolving mystery



Abstract:

- Neutrinos, uncharged weakly-interacting fundamental particles, are of three types and were thought to be massless till recently. They have been found to exhibit the unusual feature of oscillating from one type to another as they travel. The way this was observed in the last few decades in a few clever experiments around the world will be highlighted. We discuss how this is a signal for a non-zero mass of the neutrinos. Finally we briefly touch upon a major experiment – the India-based Neutrino Observatory -- that is being set up in India to address some of the open issues.

About the Speaker:

- Amitava Raychaudhuri, educated at Presidency College, Kolkata and Delhi University, obtained his Ph.D. in particle physics from the University of Maryland, USA. Currently Professor Emeritus at the University of Calcutta, he was the Sir Tarak Nath Palit Professor of Physics there since 1996. From 2005-2011 he was the Director of the Harish-Chandra Research Institute, Allahabad. He is a recipient of the Shanti Swarup Bhatnagar Award and the International Alumnus of the year 2005 of the University of Maryland. He is a Fellow of the three National Science Academies and has been awarded D.Sc.(h.c) by the University of Gour Banga and the University of North Bengal.

