



Séminaire du Laboratoire de l'Accélérateur Linéaire

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New oscillation results from T2K

The T2K (Tokai-to-Kamioka) experiment is a long-baseline oscillation experiment situated in Japan. A high intensity muon neutrino beam is sent from the JPARC proton accelerator complex in Tokai to the SuperKamiokande detector, 295km away. The primary goals of T2K are the precise measurements of the electron neutrino appearance and muon neutrino disappearance parameters. Neutrino oscillations have been confirmed by many experiments in the last 20 years but until now, there has not been an explicit observation of the appearance of a neutrino flavor from another neutrino flavor. Recently the T2K collaboration firmly established this transformation for the first time by observing electron neutrino appearance from a muon neutrino beam with a significance of 7.3 sigma. In this talk I will briefly review the neutrino oscillations phenomenon before focusing on the T2K experiment and its recent results. Furthermore I will review the complementary measurements needed to achieve the oscillation measurements.

Salle 101 du LAL - Bât. 200, Orsay

Thé et café seront servis 1/4 h avant le séminaire



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