



Laboratoire LEPRINCE-RINGUET
Ecole polytechnique IN2P3/CNRS

Séminaire

Muon neutrino and Antineutrino cross section measurements at T2K

T2K (Tokai to Kamioka) is a long-baseline neutrino oscillation experiment located in Japan and designed to measure neutrino flavor oscillation using an off-axis neutrino beam. Data collected recently with an anti-neutrino beam allows T2K to measure cross sections for anti-neutrinos at an energy around 600 MeV using the off-axis near detector. These measurements, along with the analogous for neutrinos, are vital inputs to neutrino oscillation analyses and their interpretation since they affect the background estimation and the neutrino energy reconstruction. In this seminar preliminary results on the simultaneous extraction of the muon neutrino and anti-neutrino charged-current cross sections without pions in the final state is presented, along with their sum, difference and asymmetry. These results are useful for comparison and tuning of theoretical models of nuclear effects such as multinucleon interactions.

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Responsables séminaires

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