INTERNATIONAL CONFERENCE ON HIGH ENERGY PHYSICS
AMSTERDAM 2002

Abstract ID=ABS643
Neutrino masses and mixings
Experiment: NUINT Working Group
Contact Person: David Casper
Institute: University of California, Irvine
Email: dcasper@uci.edu

Review of Neutrino-Nucleus Interactions in the Few-GeV Region

D. Casper

Abstract

Most neutrino experiments are conducted with nuclear targets, however exclusive cross-sections for neutrino reactions with nucleii remain largely unmeasured and poorly understood. These large uncertainties jeopardize the prospects for future precision studies of neutrino masses and mixings.

A joint effort by the nuclear and particle physics communities to improve the description of neutrino interactions for future experiments was begun at the NUINT: 01 meeting held in December 2001 at KEK. Among the goals of this continuing series of meetings is to confront existing neutrino and electron scattering data with nuclear models, understand the quark/hadron "duality:: which characterizes the transition between resonant and deep-inelastic scattering, develop a universal, LUND-style neutrino event generator out of the many similar but independent programs now in use, and to explore the possibilities for new, dedicated cross-section measurements. I will report on progress to date and future work required to place the description of neutrino interactions on a more solid foundation.

Version 1
Date 2002-05-12 : 16:28:56'