

Probing neutrino cross-section models with T2K near-detector data

Friday 6 July 2018 14:45 (15 minutes)

The T2K long-baseline neutrino oscillation experiment has been running since January 2010 and collected thousands of neutrino-interaction events at the near detectors (ND280 and INGRID) with different targets. The data collected allow us not only to measure the neutrino-interaction cross sections, but also to probe different nuclear models. T2K is developing new tools for unfolding the data in order to infer unbiased cross sections and exploring new variables which probe ambiguities in the modeling of nuclear effects in neutrino interactions at the energies most relevant for current and future neutrino oscillation experiments. An overview of methods probing cross-section models which could be used in other neutrino experiments will be presented in this talk. The impact of nuclear effects on the oscillation analysis will be also outlined.

Author: HADLEY, David (University Of Warwick)

Presenter: HADLEY, David (University Of Warwick)

Session Classification: Neutrino Physics

Track Classification: Neutrino Physics