

Current Status and Results from the NINJA Experiment

Friday 25 August 2023 17:10 (20 minutes)

The NINJA collaboration aims to study neutrino-nucleus interactions in the energy range of hundreds of MeV to a few GeV using an emulsion-based detector. A series of neutrino-nucleus interaction measurements was conducted using the emulsion detector with water and iron targets in the near detector hall of the T2K experiment at J-PARC. The emulsion detector is suitable for precision measurements of charged particles produced in neutrino interactions with a low momentum threshold, especially low momentum protons as low as 200 MeV/ c , thanks to its thin-layered structure and sub- μm spatial resolution. Multiplicities and kinematics of muons, charged pions and protons were measured and some significant differences between the data and Monte Carlo prediction were observed. In this talk, current status and the results from the NINJA experiment will be presented.

Primary author: OSHIMA, Hitoshi (ICRR, the University of Tokyo)

Presenter: OSHIMA, Hitoshi (ICRR, the University of Tokyo)

Session Classification: parallel (room#301)

Track Classification: WG2: Neutrino Scattering Physics