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Study of Numu-CC Pion Production in the Resonance Region Using Nomad Data

Neutrino induced pion production in the resonance (RES) region is one of the most important interaction modes for the current and future generation long-baseline neutrino oscillation experiments. It is also sensitive to nuclear effects, including fermi motion, initial state nucleon correlations, and final state interactions etc., which affect event topology and energy reconstruction of RES interactions, and contribute to the systematic uncertainty for oscillation measurements. In this poster I present study of the numu charge current pion production in the resonance region using high-statistics, high-resolution NOMAD data. Constraint on nuclear effects is also discussed.

Mini-abstract

Neutrino induced pion production in the resonance region studied with precision using NOMAD data.

Experiment/Collaboration

NOMAD

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