

Sensitivity Study of Resonance Interaction in a Fine-Grained Tracker Detector

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We present sensitivity studies for the neutrino induced resonance interaction (RES) in a fine-grained tracker detector (FGT), the reference near detector for LBNE and, possibly, DUNE. We use fast MC to study the cross-section and kinematics of the resonance processes, and use the resonance measurements to constrain the nuclear effects. The FGT-analysis is extended to the high-resolution NOMAD data which, in addition to providing precise RES measurements, serves as a benchmark to validate the FGT analysis. Preliminary NOMAD results are presented.

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