

Nucleon final state interaction in NEUT

This work describes the nucleon final state interaction (FSI) model in NEUT. Nucleon rescattering inside a nucleus can alter the kinematics of outgoing nucleon from a neutrino interaction, therefore understanding nucleon interaction inside nucleus is crucial to be able to acquire precise incident neutrino energy for accurately measuring oscillation parameters. The nucleon scattering Monte Carlo generated by NEUT is compared to external data and these can be used to tune and estimate uncertainty of parameters of the FSI model.

Summary

This work describes the nucleon final state interaction (FSI) model in NEUT.

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