CC Neutrino-nucleus cross-section tuning in GENIE v3

Wednesday 26 October 2022 11:30 (20 minutes)

This talk presents the latest GENIE tuning of $CC0\pi$ datasets from MiniBooNE, T2K and MINERvA. A partial tune for each experiment is performed, providing a common base for the discussion of tensions between datasets. The results offer an improved description of nuclear $CC0\pi$ datasets as well as data-driven uncertainties for each experiment. This work is a step towards a GENIE global tune that improves our understanding of neutrino interactions on nuclei. It follows from earlier GENIE work on the analysis of neutrino scattering datasets on hydrogen and deuterium.

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