

Non-standard neutrino interactions mediated by light scalar

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Neutrino oscillation experiments have provided crucial insights into the nature of neutrinos, including the discovery of neutrino oscillations and the observation of CP violation. Non-Standard Neutrino Interactions (NSIs) have emerged as an important topic of study, as they can potentially modify the neutrino oscillation probabilities and affect the measurement of CP violation parameters. In this work, we investigate the impact of light scalar-mediated NSIs on CP violation measurements at the Deep Underground Neutrino Experiment (DUNE). We explore the parameter space probed by DUNE and discuss the constraints imposed by other relevant experiments.

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