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Neutrino induced Coherent Pion: Precision Study in DUNE ND
BING GUO, Univ of South Carolina, DUNE COLLABORATION — We present a sensitivity study of neutrino induced Coherent-Pion (CohPi+) in a high-resolution tracker. The study is developed for the fine-grained tracker, serving as a near detector for DUNE. The study reveals that in DUNE, coherent pion production could offer the most precise constraints on three diacritical observables : (a) neutrino energy scale, (b) NuMuBar/NuMu flux, and (c) beam divergence, which are essential for precise measurements of the oscillation phenomena.

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