

MicroBooNE 实验上惰性中微子振荡探测的首次测量结果

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MicroBooNE is an accelerator neutrino experiment located at Fermilab, utilizing the liquid argon time projection chamber technology. The first search for a sterile neutrino is recently carried out in the MicroBooNE experiment with the 3+1 (three flavors of active neutrino + one flavor of sterile neutrino) framework. The result of this search is built upon the high-performance neutrino event selections using Wire-Cell reconstruction at MicroBooNE. Cancellation between electron neutrino disappearance and muon neutrino to electron neutrino appearance oscillations leads to a degeneracy when determining the oscillation parameters, which is proposed in this analysis and will be addressed by future analyses. In this talk, I will report the first MicroBooNE's sterile neutrino oscillation search.

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