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PROSPECT: Latest results for Sterile Neutrino Oscillation search

PROSPECT, the Precision Reactor Oscillation and SPECTrum experiment, is a reactor antineutrino experiment consisting of a segmented liquid scintillator antineutrino detector designed to probe short-baseline neutrino oscillations and precisely measure the antineutrino spectrum of the primary fission isotope U-235. PROSPECT's neutrino oscillation analysis utilizes target segmentation to look for differences in measured inverse beta decay (IBD) positron spectra at different positions in its detector. With a current baseline coverage of between 7 and 9 meters, the analysis search for sterile oscillations in the $\sim 1-10$ eV² mass-splitting range, with sensitivities largely independent of the underlying reactor antineutrino flux. This poster will summarize PROSPECT's latest oscillation analysis results.

Mini-abstract

The poster describes the latest PROSPECT oscillation analysis results.

Experiment/Collaboration

PROSPECT

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