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PROSPECT's latest results for Sterile Neutrino Oscillation search JOSE PALOMINO GALLO, BRYCE LITTLEJOHN, Illinois Institute of Technology, PROSPECT COLLABORATION — 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 from the High Flux Isotope Reactor (HFIR) at Oak Ridge National Laboratory (ORNL). PROSPECT uses a 4-ton optically segmented, Li6-loaded liquid scintillator detector with high light yield, world-leading energy resolution, and excellent pulse shape discrimination. PROSPECTs neutrino oscillation analysis looks 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 1-10 eV^2 mass-splitting range, with sensitivities largely independent of the underlying reactor antineutrino flux. We will summarize PROSPECTs latest oscillation analysis results.

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