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PROSPECT's latest results JOSE PALOMINO, 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. Well talk about PROSPECTs most recent measurement of the energy spectrum of U235 neutrino and we will also summarize PROSPECTs latest oscillation analysis results.

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