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PROSPECT: The Precision Reactor Oscillation and Spectrum Experiment

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The PROSPECT experiment is designed to make a reactor model-independent search for short-baseline neutrino oscillations and measure the antineutrino spectrum associated with
235U to high-precision. PROSPECT consists of a 4 ton highly-segmented
6Li-loaded liquid scintillator detector and will be operated at the High Flux Isotope Reactor (HFIR) at ORNL at baselines ranging from 7 to 12 m. Extensive prototyping has shown excellent light collection efficiency and background rejection capabilities. This talk will discuss the design, experimental program, and discovery potential of PROSPECT and present the status and performance results of the detector.

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