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## Sterile Neutrino Search with the PROSPECT Experiment

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PROSPECT is a short-baseline reactor antineutrino experiment with primary goals of performing a search for sterile neutrinos and making a precise measurement of  $^{235}\text{U}$  reactor antineutrino spectrum from the High Flux Isotope Reactor at Oak Ridge National Laboratory. PROSPECT will provide a model-independent oscillation measurement of electron antineutrinos by comparing the observed antineutrino spectrum at several baselines. By covering the baselines of 7-12 m, the PROSPECT experiment will be able to address the current eV-scale sterile neutrino oscillation best-fit region within a single year of data-taking and covers a major portion of suggested parameter space within 3 years. In this talk, we describe the PROSPECT oscillation fitting framework and expected detector sensitivity to the oscillations arising from eV-scale sterile neutrinos.

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