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Addressing Nuclear Data Needs with the PROSPECT Antineutrino Measurements THOMAS LANGFORD, Yale University, PROSPECT COLLABORATION — The PROSPECT experiment at the High Flux Isotope Reactor (HFIR) at Oak Ridge National Lab has recently published the first modern measurement of the energy spectrum from ^{235}U antineutrinos from a highly-enriched uranium reactor. With more than 30,000 detected antineutrino interactions, the PROSPECT spectrum uses six times higher statistics than the only previous measurement at the ILL reactor in 1981. Combined with the high-precision studies of Daya Bay and other medium baseline experiments at LEU reactors, the measurements of PROSPECT have stimulated the use of reactor antineutrinos to address nuclear data needs. We will discuss the recent antineutrino measurements with PROSPECT and their relevance for the evaluation of nuclear data.

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