Abstract Submitted
for the DNP20 Meeting of
The American Physical Society

Joint Isotope-Dependent Analysis of the Daya Bay, PROSPECT, and STEREO Reactor Antineutrino Spectra JEREMY GAISON, Yale University, DAYA BAY COLLABORATION, PROSPECT COLLABORATION, STEREO COLLABORATION — The Daya Bay, PROSPECT, and STEREO experiments have made world leading measurements of the ^{235}U antineutrino fission spectrum using liquid scintillator detectors located at nuclear reactors. The Daya Bay experiment has detected ∼3.5 million antineutrinos generated from power reactors fueled by a mixture of isotopic fuels, and PROSPECT and STEREO have detected ∼50,000 and ∼40,000 antineutrinos respectively generated by research reactors with highly enriched ^{235}U fuel. By leveraging the two independent ^{235}U measurements and the high-statistics Daya Bay measurement, both a more precise measurement of ^{235}U as well as a better deconvolution of the power reactor ssion spectrum into its individual isotopic components are possible. In this talk, I will present the current status of the joint spectral analyses between these experiments.

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Date submitted: 01 Jul 2020 Electronic form version 1.4