Applied antineutrino measurements: synergies between short-baseline physics and reactor safeguards

TIMOTHY CLASSEN, Lawrence Livermore Natl Lab — The experimental neutrino community has put forth an incredible effort into designing a multitude of detection systems to meet the needs of the short-baseline neutrino program. There is significant overlap between the requirements for these detectors, and those of a detector designed for reactor monitoring through antineutrinos. Here we describe how such technology improvements provide opportunities to probe fissile isotope and fission daughter distributions, and their potential use for reactor physics and safeguards applications.

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Timothy Classen
Lawrence Livermore Natl Lab