

Abstract Submitted
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Spectral Structure of Antineutrinos from Nuclear Reactors¹ DAN DWYER, Lawrence Berkeley Natl Lab, TOM LANGFORD, Yale University — We reexamine calculations of energy spectrum of antineutrinos from nuclear reactors. Ab initio calculations rely on our collected knowledge of the nuclear processes involving ~ 1000 isotopes present within a reactor. While this approach suffers from systematic uncertainties which are difficult to quantify, certain characteristics of the spectrum can be predicted. We examine these characteristics in light of recent high-statistics measurements of positrons from antineutrino inverse beta decay. Impacts on future measurements of reactor antineutrinos will also be discussed.

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