

Abstract Submitted
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Abstract of DYB APS April talk II: Design, Construction, and Calibration of the Antineutrino Detectors XIN QIAN, California Institute of Technology, Kellogg Radiation Lab, DAYA BAY COLLABORATION — The Daya Bay Reactor Neutrino Experiment aims for the cleanest and the most precise measurement of the third neutrino mixing angle θ_{13} , which will unlock the gateway of studying the CP violation in leptonic sector. The principle of the central Antineutrino Detectors is the inverse beta decay with coincidence detection of positron scintillation/annihilation and neutron capture on Gadolinium. A 3-zone design was adopted for Antineutrino Detectors to minimize systematic uncertainties in detector target mass. Furthermore, an automated calibration system was developed to give a comprehensive and robust energy calibration with *Ge*, *Co* and *AmC* sources. In this talk, we will describe the design and construction of our Antineutrino Detectors. In addition, the performance of calibrations of our Antineutrino Detectors will be presented.

Xin Qian
California Institute of Technology, Kellogg Radiation Lab

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