

Abstract Submitted
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The Daya Bay Experiment IV: Performance of Side-by-Side Antineutrino Detectors CHRISTINE LEWIS, University of Wisconsin-Madison, DAYA BAY COLLABORATION — A precise measurement of $\sin^2 2\theta_{13}$ is the primary goal of the Daya Bay Reactor Neutrino Experiment, which will compare the antineutrino flux in eight detectors installed at three experimental halls with different distances from the reactor cores. To minimize the impact of varying detector response on the uncertainties in the θ_{13} measurement, a large effort has gone into ensuring that detectors will be as identical as possible. In August of 2011, the Daya Bay Experiment began collecting data with its first pair of antineutrino detectors installed side-by-side in an experimental hall near the Daya Bay reactor cores. Running in this configuration, we can evaluate how identical the detectors actually are and quantify the relative detector systematic uncertainty. We will discuss antineutrino event selection in the first two detectors and show that the Daya Bay Collaboration has succeeded in building sufficiently identical detectors.

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