

Abstract Submitted  
for the DNP13 Meeting of  
The American Physical Society

**The Daya Bay Rate Plus Shape Analysis** JIAJIE LING, University of Illinois at Urbana-Champaign, DAYA BAY COLLABORATION — Measuring  $\theta_{13}$  is the gateway to measure the charged-parity (CP) violation in the lepton sector, which may ultimately explain why the Big Bang embraced matter over antimatter. In March 2012, Daya Bay Reactor Neutrino Experiment made the first conclusive measurement of  $\theta_{13}$  by observing electron antineutrino interactions rate deficit over a baseline around 2 km. This talk will present the detailed study about the reactor spectrum, detector energy nonlinearity and the fitter for the Daya Bay rate plus shape analysis.

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Date submitted: 30 Jun 2013

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