

The measurement of the reactor antineutrino flux and spectrum of Daya Bay Experiment

Friday 29 August 2014 15:00 (20 minutes)

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The Daya Bay Reactor Neutrino Experiment collected ~300,000 inverse beta decay events in three antineutrino detectors at two sites near the reactor cores, over 217 days. This talk will present the methods we use to convert the observed positron energy spectrum to a reactor antineutrino spectrum, including normalization to reactor power.

We also present our results for the absolute reactor antineutrino flux and spectrum. Comparisons are made with the predictions of various flux models, and an example of using our spectrum to predict the spectrum from other reactor experiments will also be described.

WG3: Accelerator Physics (Yes/No)

No

WG2: Neutrino Scattering Physics (Yes/No)

No

WG4: Muon Physics (Yes/No)

No

WG1: Neutrino Oscillation Physics (Yes/No)

Yes

Type of presentation

Oral presentation

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Session Classification: WG1: Neutrino Physics