

The Precision Measurement of Reactor Antineutrino Oscillation at Daya Bay

The Daya Bay Reactor Neutrino Experiment consists of eight functionally identical detectors placed underground at different baselines from six 2.9 GW reactor cores. In 2012, the experiment announced the discovery of a non-zero value of $\sin^2 2\theta_{13}$ with a significance better than 5σ , based on a dataset collected with six antineutrino detectors. In the summer of 2012, two additional detectors were installed and several million-inverse beta decay (IBD) candidates have been collected since. With the largest sample of reactor antineutrinos ever collected to date, less backgrounds and better control of systematics, the measurement of the neutrino mixing angle θ_{13} has now reached an unprecedented precision below 4%. In this poster, the latest oscillation analysis results will be presented.

Authorship annotation

for the Daya Bay Collaboration

Session and Location

Wednesday Session, Poster Wall #6 (Robert-Schumann-Room)

Poster included in proceedings:

yes

Primary author: Dr HU, Bei-Zhen (National Taiwan University)

Presenter: Dr HU, Bei-Zhen (National Taiwan University)

Track Classification: Poster (participating in poster prize competition)