



Contribution ID: 282

Type: **Parallel Session talk**

Reactor Antineutrino Flux and Spectrum Measurement at Daya Bay

Tuesday, August 6, 2019 2:15 PM (12 minutes)

Summary

This talk presents the latest results of reactor antineutrino flux and spectrum measurement at Daya Bay. The Daya Bay Reactor Neutrino Experiment uses an array of eight underground detectors to study antineutrinos from six reactor cores with different baselines. Four antineutrino detectors in two near experimental halls were used for the measurements. An improved reactor antineutrino flux measurement will be reported. A new measurement of the prompt energy spectrum of reactor antineutrinos shows a global discrepancy compared with the Huber-Mueller model prediction and in the energy range of 4-6 MeV a local deviation is observed. The individual spectra of U-235 and Pu-239 were decomposed from the evolution of IBD prompt energy spectra, thanks to the reactor fuel fission evolution data from the nuclear power plant. The individual IBD yield of U-235 and Pu-239 were also obtained.

Presenter: WANG, Zhe (Tsinghua University)

Session Classification: Neutrino Physics (Parallel)