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Reactor Antineutrino Flux and Spectrum Measurement at Daya Bay and Precise Determination of Its High Energy Component

Thursday 30 July 2020 13:45 (3 minutes)

The Daya Bay reactor neutrino experiment uses eight antineutrino detectors deployed in two near and one far underground experimental halls to detect electron antineutrinos produced by six nuclear reactors each with 2.9 GW_{th}. In this poster, we will present an improved reactor antineutrino flux measurement with reduced dominant uncertainties and the first measurement of the individual ^{235}U and ^{239}Pu antineutrino spectra as well as the total one. Both flux and spectra measurements exhibit significant deviations from the prediction of the Huber-Mueller model. The Daya Bay experiment with its largest reactor antineutrino sample collected up to date has an ideal chance to study the high-energy end of the reactor antineutrino spectrum. A preview of the precise reactor antineutrino spectrum measurement with energies above 8 MeV will be shown.

I read the instructions

Secondary track (number)

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