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Latest Results from the Daya Bay Reactor Neutrino Experiment

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The Daya Bay Reactor Neutrino Experiment was designed to measure θ13, the smallest mixing angle in the three-neutrino mixing framework, with unprecedented precision. The experiment consists of multiple identical detectors placed underground at different baselines from three pairs of reactors, a unique configuration that minimizes systematic uncertainties and cosmogenic backgrounds. In 2012 Daya Bay made the first definitive observation of a non-zero value of θ13, a result that opened the door for a rich program of future neutrino oscillation physics. With a growing dataset that to date comprises about one million recorded neutrino interactions, Daya Bay is able to greatly improve the precision on θ13 and to perform a number of other groundbreaking measurements, such as an independent determination of the effective mass splitting in the electron antineutrino disappearance channel. The most recent results from Daya Bay will be discussed in this talk, alongside the current status and future prospects of the experiment.

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