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The recent results of the Daya Bay Experiment

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The Daya Bay Experiment measured reactor anti-neutrino disappearance on short baseline with unprecedented precision. In a three-neutrino framework our best fit for oscillation parameters is $\sin^2 2\theta_{13} = 0.084 \pm 0.005$ and $|\Delta m^2_{ee}| = 2.44^{+0.10}_{-0.11} \times 10^{-3}$ eV^2. We also preformed largely independent measurement of θ_{13} using neutron capture on hydrogen. The result $\sin^2 2\theta_{13} = 0.083 \pm 0.018$ is consistent with measurement using neutron capture on gadolinium.

With over 1 million detected inverse beta decay interactions using neutron capture on gadolinium the Daya Bay Experiment provides high statistics measurement of absolute reactor $\bar{\nu}_e$ flux. The result is in agreement with previous short-baseline experiments and favors so called 'reactor anomaly'.

With the combination of multiple baselines Daya Bay has unique chance to set the most stringent limit on light sterile neutrino mixing in region 10^{-3} eV$^2 < \Delta m^2_{41} < 10^{-1}$ eV^2.

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