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Daya Bay neutrino oscillation results based on neutron captured on hydrogen

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The Daya Bay reactor neutrino experiment is the first experiment that measured a nonzero value for the θ_{13} neutrino mixing angle in 2012. Antineutrinos from six 2.9 GW_{th} reactors are detected in eight functionally identical antineutrino detectors deployed in two near (flux-weighted baseline 470 m and 576 m) and one far (1648 m) underground experimental halls. The near-far arrangement of antineutrino detectors allows for a relative measurement by comparing the observed antineutrino rates at various baselines. In 2014, the Daya Bay experiment reported an independent measurement of the nonzero neutrino oscillation parameter θ_{13}, utilizing the data set of neutron captured on hydrogen (nH) with distinct systematic uncertainties from the data set of neutrons captured on gadolinium, and has been improving this measurement since then. In this poster, I shall show the latest result of the Daya Bay nH neutrino oscillation analysis with improved statistics and systematic control.

Secondary track (number)

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