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Latest results on neutrino oscillation parameters from Daya Bay

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The Daya Bay Reactor Neutrino Experiment discovered a non-zero value for the neutrino mixing angle ⊠13 in 2012. Since then, Daya Bay continues to provide leading determination of this small mixing angle. This is accomplished by comparing the measured rate and energy spectrum of electron antineutrinos coming from three pairs of reactors between multiple identical-designed detectors installed in three underground experimental halls located at different distances from the reactors. After a total of about nine years of operation, Daya Bay has amassed a record-breaking number of electron antineutrino events via their inverse beta-decay (IBD) interactions in the gadolinium-doped liquid scintillator inside the detectors. Based on about 5.6 million IBD candidates with the final-state neutron captured on gadolinium obtained from the full data set, Daya Bay has further improved the precision of determining ⊠13 and the mass-square difference Am232. These latest results will be presented.

Presenter: LUK, Kam-Biu (UC Berkeley/LBNL) **Session Classification:** Parallel Session E

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