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**Utilizing Neutron Capture on Hydrogen to Measure  $\theta_{13}$  at Daya Bay** LOGAN LEBANOWSKI, Tsinghua University, THE DAYA BAY COLLABORATION — The Daya Bay Reactor Neutrino Experiment has provided the most precise determination of the neutrino mixing angle,  $\theta_{13}$ . The precision of this determination is crucial for future measurements of CP violation in the lepton sector. Now, Daya Bay is performing a largely independent measurement of  $\sin^2 2\theta_{13}$  utilizing neutron capture on hydrogen. Previous results use six 20-ton Gd-loaded scintillating targets while the new measurement uses six additional 22-ton scintillating targets that are not Gd-loaded. This talk introduces the basic differences between the two determinations, including a discussion of their correlations. This talk also gives an illustration of how the new, statistically-independent measurement of  $\sin^2 2\theta_{13}$  is significantly systematically-independent, and is expected to improve the uncertainty from Daya Bay.

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