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**Measuring  $\theta_{13}$  with Reactor Antineutrinos at Daya Bay** KARSTEN

M. HEEGER, DAYA BAY COLLABORATION — Neutrino mass and mixing are amongst the major discoveries of recent years. From the observation of flavor change in solar and atmospheric neutrino experiments to the measurements of neutrino mixing with terrestrial neutrinos, recent experiments have provided compelling evidence for the mixing of massive neutrinos. Present experiments have determined two of the three mixing angles in the neutrino mixing matrix. The coupling of the electron neutrino flavor to the third mass eigenstate is not yet known, and its corresponding mixing angle  $\theta_{13}$  is critical for exploring CP violation searches in the lepton sector. This talk will describe the proposal for a precision measurement of  $\sin^2 2\theta_{13}$  with reactor anti-neutrinos at the Daya Bay nuclear power plant.

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