

Abstract Submitted
for the APR12 Meeting of
The American Physical Society

First Results from Double Chooz and Future Prospects ARTHUR FRANKE, Columbia University, DOUBLE CHOOZ COLLABORATION — The Double Chooz experiment has begun its first phase of operation, using a single detector to search for oscillations of reactor antineutrinos at a baseline of 1050 m and measure the small mixing angle, θ_{13} . A first set of data from the detector have been analyzed, with the expected antineutrino flux prediction using the measurement of the Bugey4 experiment as an anchor point. The results show an indication of reactor electron antineutrino disappearance consistent with neutrino oscillations. Future prospects for measurement with Double Chooz in a single-detector phase are discussed.

Arthur Franke
Columbia University

Date submitted: 07 Jan 2012

Electronic form version 1.4