



Poster session 2 – Tuesday 5 July

P2.073 Measurement of θ_{13} using RENO reactor neutrino events with neutron capture on hydrogen

C Shin

Chonnam National University, South Korea

on behalf of RENO collaboration

RENO has been taking data since August, 2011 and successfully measured the smallest neutrino mixing angle, θ_{13} . This measurement was based on observed reactor neutrino events with neutron captures on gadolinium (n-Gd) in the target detector region. RENO also successfully measures the mixing angle from a reactor neutrino sample with neutron captures on hydrogen (n-H) in the gamma-catcher region. Due to a large accidental background in the n-H data sample, the analysis requires additional reduction of backgrounds. This independent measurement provides a valuable systematic cross-check of the θ_{13} measurement using the n-Gd sample. In this talk, we present the results from the n-H analysis using the 500 days of data sample.