Contribution ID: **74** Type: **not specified**

Current Status of RENO

Wednesday, September 16, 2009 9:00 AM (20 minutes)

RENO(Reactor Experiment for Neutrino Oscillation), is under construction to measure the smallest neutrino mixing angle theta_13 using antineutrinos emitted from the Yonggwang power plant in Korea with world-second largest thermal power output of 16.4 GW.
A high precision measurement of reactor neutrino oscillation can be achieved by two identical detectors.
Each detector consists 16-ton Gadolinium loaded liquid scintillator as a neutrino target. The near and far detectors are placed roughly 290 m and 1.4 m from the center of the reactor array. The near detector is constructed at underground of a 70 m high hill and the far detector at underground of a 260 m high mountain.
The identical detector setup will reduce systematic uncertainties to less than 1%.
The experiment is planned to start data-taking in mid 2010.
In this talk the current status of detector construction will be presented.

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Session Classification: DG3 - Neutrino Physics

Track Classification: Neutrino Physics