

JUNO Sensitivity to Neutrino Oscillation Parameters

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Jiangmen Underground Neutrino Observatory (JUNO), under construction in South China, is designed to resolve the neutrino mass ordering using the oscillatory pattern of the electron anti-neutrinos produced in nuclear reactor cores. With a baseline of 52.5 km and a fine energy resolution of 3% at 1 MeV, JUNO will allow for the observation of two neutrino oscillation modes simultaneously, collecting about 100,000 inverse beta-decay events in six years with a 20 kton liquid scintillator target. This makes it possible to precisely measure the mixing angle θ_{12} and mass splittings Δm_{21}^2 and Δm_{31}^2 with unprecedented accuracy below 1%. The poster will cover details of the analysis and the final sensitivity results.

Poster prize

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