

The JSNS2 experiment to search sterile neutrino at J-PARC

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The JSNS2 (J-PARC Sterile Neutrino Search at J-PARC Spallation Neutron Source) experiment is to search sterile neutrino at 24m baseline with Δm^2 near 1 eV square. JSNS2 use intense neutrino beam from muon decay-at-rest from the collision of 3 GeV protons to mercury target at J-PARC. The experiment search neutrino oscillation of anti electron-neutrino from anti muon-neutrino, and anti electron-neutrino can be detected via Inverse Beta Decay reaction inside of 17 tons of Gd loaded liquid scintillator detector as a neutrino target. We aim to start data taking at the end of JFY 2018, therefore we are making large effort for construction. In this talk, we will present the status of detector installation, slow monitoring, preparation of liquid scintillator, Monte-Carlo studies of detector calibration, related schedules and prospect.

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