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KamLAND-Zen 800

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KamLAND-Zen 800 is a neutrinoless double-beta decay search experiment with the Kamioka Liquid-scintillator Anti-electron Neutrino Detector (KamLAND). In 2019, we started KamLAND-Zen 800 experiment with 745 kg of xenon. We achieved the background reductions by reducing the radioactive materials in the newly fabricated 25- μm -thick nylon film container for the Xe-loaded LS and developing a new analysis technique to reject the cosmic-ray muon spallation backgrounds. We continue the observation to search within the inverse hierarchy region of the Majorana neutrino effective mass.

In the presentation, the detector status and the estimation of the $0\nu\beta\beta$ decay search backgrounds will be reported.

Collaboration name

KamLAND-Zen Collaboration

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Session Classification: Double Beta decays and Neutrino Masses

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