



Friday 8 July, 09:45 – 10:05

Session 13: Neutrino properties I: searches for neutrinoless double beta decay

Results and future plans for the KamLAND-Zen

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Neutrino-less double beta decay ($0\nu\beta\beta$) is the only feasible experimental method to test the Majorana nature of neutrinos, which would provide a key to clarify the neutrino mass problem and the origin of the matter-dominance of the Universe. KamLAND-Zen experiment has conducted a high-sensitive $0\nu\beta\beta$ search for ^{136}Xe nuclei with 380kg-enriched xenon in the facility of the 1,000ton liquid scintillator (LS) detector, KamLAND. Latest results of the KamLAND-Zen including the new data with the purified Xe-LS, the ongoing upgrade of KamLAND-Zen with doubled amount of Xe and the future prospect will be presented.