



Contribution ID: 1057

Type: Talk

## KamLAND-Zen 800 status and future prospects

*Tuesday 22 August 2017 17:30 (30 minutes)*

KamLAND-Zen is the neutrinoless double beta decay experiment using  $^{136}\text{Xe}$  in the 1,000ton ultra pure liquid scintillator KamLAND. The observation of the neutrinoless double beta decay would help our understanding of neutrino mass and hierarchy by demonstrating the Majorana particle. KamLAND-Zen 400 was ended successfully in 2015. We measured the  $^{136}\text{Xe}$  double beta decay life time precisely, and got the limit of neutrinoless double beta decay life time. KamLAND-Zen 800 is a improved experiment using 800kg of  $^{136}\text{Xe}$ . This experiment have a potential to survey in inverted hierarchy region of the neutrino mass. I will report KamLAND-Zen 800 status and future prospect.

### Topic:

Workshop on Future of Fundamental Physics

### Summary

I am sorry. I cannot find suitable tracks and topic. My talk is related to the neutrino mass, neutrino mass hierarchy, lepton-number violation and Majorana nature.

**Co-author:** KAMLAND-ZEN COLLABORATION

**Presenter:** KOGA, Masayuki

**Session Classification:** Parallel session

**Track Classification:** Workshop on Future of Fundamental Physics - Accelerators in HEP and beyond