Contribution ID: **499** Type: **Poster**

KamLAND2-Zen: Design and status

The KamLAND-Zen program has recently set the worlds most stringent limit on neutrinoless double beta decay ($0\nu\beta\beta$), being the first experiment excluding a half-life less than 10^{26} years at the 90% C.L. The next push will be to upgrade the detector hardware, increase the amount of dissolved xenon gas, and update the readout system in order to probe the full inverted hierarchy region. This is KamLAND2-Zen. This poster elaborates on the status of the upgrade with specific emphasis on the streaming readout system, which aims to utilize a powerful RF-ADC and FGPA system on a chip, the Xilinx Zynq Ultrascale+ RFSoC.

Mini-abstract

The KamLAND-Zen program looks towards the future with KamLAND2-Zen.

Experiment/Collaboration

KamLAND

Primary author: AXANI, Spencer (MIT)

Co-authors: Dr ISHIDOSHIRO, Koji (Tohoku University); Mr NAKAMURA, Kosuke (Tohoku University); Prof. WINSLOW, Lindley (MIT)

Presenter: AXANI, Spencer (MIT)

Session Classification: Poster session 3