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Latest Results and Future Prospects of the KamLAND-Zen Experiment

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The search for neutrinoless double-beta decay ($0\nu\beta\beta$) is a critical probe for testing the Majorana nature of neutrinos, a key question in particle physics. In this presentation, I will provide an overview of the KamLAND-Zen experiment, one of the leading efforts in this search. I will focus on the data analysis of our latest results, which offer new insights into the $0\nu\beta\beta$ decay search. Additionally, I will report the future directions of the experiment, including the planned KamLAND2 and KamLAND2-Zen projects. These next-generation experiments aim to further improve sensitivity and reduce background, advancing our understanding of neutrino physics. Progress on the technical developments and timelines of these experiments will also be reported.

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