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【353】Search for neutrinoless double beta decay beyond 10^26 yr of half life sensitivity with GERDA

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The GERDA experiment searches for neutrinoless double beta decay of Ge76. The observation of this decay would imply that lepton number is violated in nature. Among the candidate isotopes for neutrinoless double decay, Ge76 is appealing due to its high intrinsic purity and excellent energy resolution. Thanks to the liquid argon veto system along with background discrimination techniques, GERDA has achieved the lowest ever background index for the search of neutrinoless double decay. In early 2018 the projected sensitivity of GERDA surpassed 10^26 yr, which was followed by a data release in May. The latest results from this data release and status of the ongoing upgrade of the experiment will be presented in this talk.

Author: MINGAZHEVA, Rizalina (UZH)

Presenter: MINGAZHEVA, Rizalina (UZH)

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