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The LEGEND Neutrinoless Double beta Decay Experiments

Friday, May 31, 2024 10:00 AM (15 minutes)

The LEGEND collaboration is operating the LEGEND-200 experiment at the Gran Sasso National Laboratory (LNGS) in Italy and is designing the LEGEND-1000 experiment for baseline deployment at LNGS with SNOLAB as a backup site. The experiment use high-purity enriched Ge-76 crystals in a direct search for neutrinoless double beta decay. The goal for LEGEND-200 is to be sensitive to a double beta decay half life of 10^{27} years; for LEGEND-1000, 10^{28} years, which will probe the inverted hierarchy space. Results from LEGEND-200 will be discussed as well as status and design preparations for LEGEND-1000.

Keyword-1

Neutrino

Keyword-2

double beta decay

Keyword-3

Majorana

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