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Status of the GERDA Experiment

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The GERDA experiment is designed to search for the neutrinoless double beta decay of Ge-76, using an array of isotopically enriched high-purity germanium detectors, suspended in a liquid argon cryostat. Detection of the neutrinoless double-beta decay can potentially answer the question of the Majorana or Dirac nature of the neutrino and give access to the absolute neutrino mass scale.

Phase-I of the experiment, started in November 2011, has reached a background index of 2×10^{-2} cts/(keV kg yr) in the region of interest around 2039 keV. Phase-I data taking is now almost complete. For Phase-II, the detector array will soon be upgraded new detector technology, adding an additional detector mass of 20 kg, and an active background veto based on detection of the liquid argon scintillation light.

We present the current status and recent results of the experiment, as well as our plans for the Phase-II upgrade in 2013.

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