

Abstract Submitted
for the APR05 Meeting of
The American Physical Society

The *Majorana* Neutrinoless Double-Beta Decay Experiment¹

REYCO HENNING, LBNL, MAJORANA COLLABORATION — The proposed *Majorana* experiment is an enriched, segmented, HPGe detector array that will search for the neutrinoless double-beta decay of ^{76}Ge and dark matter. The construction will proceed in a staged approach, the first being an assembly of on the order of 200-kg of enriched germanium crystals, with the option to increase to ~ 1 ton. Majorana will employ pulse-shape discrimination, detector segmentation, careful materials selection, and active and passive shielding to suppress backgrounds. An overview of the Majorana experiment will be presented in this talk and more detailed discussions will follow in subsequent talks.

¹This work is supported under DOE contract DE-AC03-76SF00098

Reyco Henning
LBNL

Date submitted: 20 Jan 2005

Electronic form version 1.4