

The latest results of the Majorana Demonstrator

Friday, 29 June 2018 17:30 (30 minutes)

The Majorana Demonstrator is an ultra-low background experiment searching for neutrinoless double-beta decay in ^{76}Ge at the Sanford Underground Research Facility. The high radiopurity of the detectors and components, combined with the excellent energy resolution of the HPGe detector array, allows the Demonstrator to double as both a neutrinoless double beta decay experiment at higher energy, and a dark matter and solar axion experiment at low energies. The search for neutrinoless double-beta decay could determine the Dirac vs Majorana nature of neutrino mass and provide insight to the matter-antimatter asymmetry in the Universe. In my talk, I will discuss the latest results of the Demonstrator's neutrinoless double-beta search and its low energy program.

This material is based upon work supported by the U.S. Department of Energy, Office of Science, Office of Nuclear Physics, the Particle Astrophysics Program of the National Science Foundation, and the Sanford Underground Research Facility. We acknowledge the support of the U.S. Department of Energy through the LANL/LDRD Program.

Primary author: ZHU, Brian (Los Alamos National Laboratory)

Presenter: ZHU, Brian (Los Alamos National Laboratory)

Session Classification: Parallel Session 1-2