SES17-2017-020016

Abstract for an Invited Paper
for the SES17 Meeting of
the American Physical Society

First Results from the MAJORANA DEMONSTRATOR

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The MAJORANA DEMONSTRATOR experiment has been operating since October 2016 inside a clean room 4850 feet underground in the Sanford Underground Research Facility in Lead, SD. The is searching for neutrinoless double beta ($0\nu\beta\beta$) decay in ^{76}Ge using 29.7 kg of detectors made from germanium enriched to 88% in that isotope. If observed, $0\nu\beta\beta$ decay will prove that the neutrino and the anti-neutrino are identical and that lepton number is not a conserved quantity. It will also provide hints as to how the Big Bang produced more matter than it did antimatter. The primary goal of the MAJORANA DEMONSTRATOR is to show that backgrounds can be reduced to a value low enough to justify a large $0\nu\beta\beta$ experiment using ^{76}Ge. More than six months of data from the DEMONSTRATOR have been analyzed, and initial results for the background index will be presented, together with an outlook for the future sensitivity reach of the experiment. Future prospects for LEGEND, a new collaboration formed with the goal of fielding a tonne-scale ^{76}Ge $0\nu\beta\beta$ experiment, will also be discussed.