

Rare Low-Energy Event Searches with the MAJORANA DEMONSTRATOR

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The MAJORANA DEMONSTRATOR is currently searching for neutrinoless double-beta decays in germanium-76 and will demonstrate the feasibility to deploy a tonne-scale experiment in a phased and modular fashion. It consists of two modular arrays of natural and ^{76}Ge -enriched germanium detectors totaling 44.1 kg, of which 29.7 kg is enriched, located at the 4850' level of the Sanford Underground Research Facility in Lead, South Dakota, USA. The low-backgrounds and low thresholds ($< 1\text{keV}$) achieved by the DEMONSTRATOR allow for additional rare-event searches at low-energies, e.g. searches for bosonic dark matter, solar axions, pauli exclusion principle violation, and electron decay. In this work, we will present recent results on rare event searches and discuss the future reach of MAJORANA.

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