

Abstract Submitted
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Status Update of the MAJORANA DEMONSTRATOR Neutrinoless Double-Beta Decay Experiment¹ KRISTOPHER VORREN, Univ of NC - Chapel Hill, MAJORANA COLLABORATION — The MAJORANA collaboration has made significant progress over the past year on the MAJORANA DEMONSTRATOR. The goal of the DEMONSTRATOR is to demonstrate backgrounds low enough to justify building a tonne-scale experiment, establish the feasibility to construct and field modular arrays of Ge detectors, and perform searches for additional physics beyond the standard model. The DEMONSTRATOR is currently being built at the 4850 ft level of the Sanford Underground Research Facility (SURF) in Lead, SD. The first of three custom cryostats, the prototype module, is currently taking data, while assembly and commissioning of the second cryostat, module 1, is ongoing. Hardware fabrication for the third cryostat, module 2, is nearing completion. Combined, module 1 and module 2 will contain 40 kg of Ge detectors with 30 kg enriched to 87% ⁷⁶Ge, the double-beta decaying isotope. An active simulation and analysis campaign is underway for the prototype and module 1 cryostats. This talk will provide an overview and status update on the DEMONSTRATOR.

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