

Abstract Submitted  
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**The MAJORANA Demonstrator: An R&D project towards a tonne-scale germanium neutrinoless double-beta decay search**<sup>1</sup> REYCO HENNING, U. of North Carolina, Chapel Hill, MAJORANA COLLABORATION — The MAJORANA collaboration is pursuing the development of the so-called MAJORANA Demonstrator. The Demonstrator is intended to perform research and development towards a tonne-scale germanium-based experiment to search for the neutrinoless double-beta decay of  $^{76}\text{Ge}$ . The Demonstrator can also perform a competitive direct dark matter search for light WIMPs in the  $1 - 10 \text{ GeV}/c^2$  mass range. It will consist of approximately 60 kg. of germanium detectors in an ultra-low background shield located deep underground at the Sanford Underground Science and Engineering Laboratory (SUSEL). The Demonstrator will test several different detector technologies, and half of the detector mass will be enriched germanium. This talk will review the motivation, design, technology and status of the Demonstrator.

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