

Abstract Submitted  
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**Toward a tonne-scale germanium neutrinoless double beta decay experiment** DAVID STEELE, Los Alamos Natl Lab, MAJORANA COLLABORATION, 1TGE COLLABORATION — A tonne-scale Ge neutrinoless double beta decay experiment, motivated by the desire to explore the Majorana neutrino mass regime indicated by atmospheric neutrino oscillation results, would need to achieve  $O(100)$  smaller background rates beyond those expected in the current generation of experiments. The Majorana and GERDA collaborations are pursuing two different Ge-based techniques with the intention of working together on a future tonne-scale experiment. I will discuss the background and technical requirements of such an experiment, present possible shielding configurations based on the GERDA and Majorana approaches, and outline preliminary plans for such an experiment at the Deep Underground Science and Engineering Laboratory (DUSEL).

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