A background model for the MAJORANA low-background broad energy germanium detector ALEXIS SCHUBERT, University of Washington, MAJORANA COLLABORATION — The MAJORANA Collaboration will search for neutrinoless double-beta decay of germanium-76 with an array of enriched germanium detectors called the DEMONSTRATOR. MAJORANA Collaborators operate a low-background research and development detector in a shielded environment at the Kimballton Underground Research Facility near Ripplemeade, Virginia. The contents of the detector cryostat are well known, making it a good candidate for testing the MAJORANA background model. This talk describes the creation of a background energy-spectrum model for the Kimballton detector. Energy spectra measured with the detector at Kimballton are compared to results of the background model, and implications for the DEMONSTRATOR are explored.

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