

## Analysis Techniques for the MAJORANA DEMONSTRATOR

The MAJORANA DEMONSTRATOR is a low-background array of approximately 40 kg of germanium detectors searching for neutrinoless double-beta ( $0\nu\beta\beta$ ) decay in germanium-76, deployed 4,850 feet underground at the Sanford Underground Laboratory in Lead, South Dakota, USA. Our primary objective is to demonstrate background levels low enough to justify constructing a ton-scale experiment with the same design principles which will be able to fully probe the inverted-hierarchy region of the  $0\nu\beta\beta$  decay phase-space. In addition to reducing background through materials-selection and experimental design, we are developing a range of analysis-based background-suppression cuts. Examples of these cuts include timing cuts, pulse-shape cuts, and coincidence cuts. This poster will present an overview of those analysis cuts.

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