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**Identification and Removal of Low Energy Noise Events in the Majorana Demonstrator** ANDREW SMITH, Univ of NC - Chapel Hill, MAJORANA COLLABORATION — The MAJORANA DEMONSTRATOR is an array of enriched, high-purity Germanium (HPGe) p-type point contact (PPC) detectors constructed to demonstrate the necessary background rates for the detection of neutrinoless double-beta decay ($0\nu\beta\beta$) and establish the feasibility of a tonne-scale experiment. The PPC detectors have excellent electronic noise performance, providing the opportunity to perform searches for various types of dark matter and other BSM physics that manifest at low energies. In this study we identify some sources of noise events in low-energy (<200 keV) regions and discuss their removal. Such sources of noise include noise related with external pulsers, crosstalk, and events that occur within the surface layer of the PPC detectors. We present a variety of techniques to remove these events based on off-line digital signal processing, and compare spectra produced before and after their removal.

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