Contribution ID: 149

Type: Poster

Data quality assurance for the MAJORANA DEMONSTRATOR

The MAJORANA DEMONSTRATOR is an experiment constructed to search for neutrinoless double-beta decays in germanium-76 and to demonstrate the feasibility to deploy a large-scale experiment in a phased and modular fashion. It consists of two modular arrays of natural and 76Ge-enriched germanium detectors totalling 44.1 kg, located at the 4850' level of the Sanford Underground Research Facility in Lead, South Dakota, USA. Any neutrinoless double-beta decay search requires a thorough understanding of the background and the signal energy spectra. This talk will discuss the various techniques employed to ensure the integrity of the measured spectra. Data collection is monitored with a thorough regimen, and subsequent careful analysis of the collected data is performed to ensure that there are no deeper issues. Instrumental background events are tagged for removal, and problematic channels are removed from consideration as necessary.

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Session Classification: Poster Session

Track Classification: Neutrinos