Abstract Submitted for the APR17 Meeting of The American Physical Society

Experimental monitoring for the Majorana Demonstrator¹ WEN-QIN XU, University of South Dakota, MAJORANA COLLABORATION — The MAJORANA DEMONSTRATOR neutrinoless double beta $(0\nu\beta\beta)$ decay experiment has instrumented two modules of high purity germanium (HPGe) detectors to search for $0\nu\beta\beta$ decay in ⁷⁶Ge. The experiment has started accumulating quality data towards its goal of demonstrating the technical feasibility and low backgrounds for a next generation Ge-based $0\nu\beta\beta$ experiment. It is critical to extensively monitor the performance of the experimental apparatus without disturbing the blindness data-taking scheme. The experimental monitoring is composed of several stages including, for example, the live monitoring embedded in the Data-Acquisition system, onsite nearlive monitoring and data production monitoring. In all stages, automatic alerting mechanisms and scheduled manual checks are implemented in a coordinated way. In this talk, we will discuss the internal management of each experimental monitoring stage and their relationships to each other.

¹This material is based upon work supported by the U.S. Department of Energy, Office of Science, Office of Nuclear Physics, the Particle Astrophysics and Nuclear Physics Programs of the National Science Foundation, and Sanford Underground Research Facility

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Date submitted: 28 Sep 2016 Electronic form version 1.4