

Abstract Submitted
for the APR16 Meeting of
The American Physical Society

Search for axion-like dark matter with MAJORANA DEMONSTRATOR Commissioning Data KRISTOPHER VORREN, Univ of NC - Chapel Hill, MAJORANA COLLABORATION — The MAJORANA DEMONSTRATOR (MJD) is an array searching for neutrinoless double-beta decay using p-type point contact (PPC) HPGe detectors in an ultra-low background environment. The low-noise characteristics of the PPC detectors also enable searches for various types of dark matter which manifest as signals at low energies (< 100 keV). A preliminary analysis of a search for axion-like particle (ALP) dark matter with about 400 kg-d of enriched detector data – taken during a 2015 commissioning run of the partially completed MJD array – is presented. We also discuss the projected sensitivity of the full MJD array that will be completed in 2016. This 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 the Sanford Underground Research Facility.

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Date submitted: 08 Jan 2016

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