

Abstract Submitted  
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**Results of a Microwave Cavity Search for Dark Matter Axion-Like-Particles** A.T. MALAGON, O.K. BAKER, J.L. HIRSHFIELD, Y. JIANG, Yale, G. KAZAKEVITCH, Muons Inc, S. KAZAKOV, M.A. LAPOINTE, A.J. MARTIN, S. SHCHELKUNOV, P.L. SLOCUM, A.E. SZYMKOWIAK, Yale — There is a strong physics case for new particles with very weak couplings and sub-eV mass, such as axions, axion-like particles (ALPs), and hidden photons. These particles arise naturally in many beyond the Standard Model theories, and as well, have the correct properties to form part or all of the cold dark matter. The Yale Microwave Cavity Experiment (YMCE) uses a microwave cavity in a strong magnetic field to search for conversions of these new particles to photons, if they form part of the galactic dark matter. YMCE has conducted axion-like-particle searches in the mass range 140.2 - 142.7  $\mu\text{eV}$  (33.9-34.5 GHz). In this talk, we present preliminary results from this search.

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