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Searches for Structured Axion Dark Matter with ADMX M. HOTZ, C. BOUTAN, D. LYAPUSTIN, L.J. ROSENBERG, G. RYBKA, A. WAGNER, University of Washington, G. CAROSI, S.J. ASZTALOS, C. HAGMANN, D. KINION, Lawrence Livermore National Laboratory, K. VAN BIBBER, Naval Postgraduate School, J. HOSKINS, J. HWANG, C. MARTIN, P. SIKIVIE, I. STERN, N.S. SULLIVAN, D.B. TANNER, University of Florida, J. CLARKE, University of California Berkeley, R. BRADLEY, National Radio Astronomy Observatory, ADMX COLLABORATION — Axions are a compelling cold dark matter candidate. The Axion Dark Matter eXperiment (ADMX) searches for the Milky Way's halo of axions by their conversion into microwave photons in a resonant cavity threaded with a strong magnetic field. The detector has high spectral resolution, which allows for detection of narrow structures. We present preliminary results of searches for late infall axion lines, virialized axions, and sub-virialized axions.

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