

Abstract Submitted  
for the APR12 Meeting of  
The American Physical Society

**Searching for hidden Sector Photons and Chameleons with ADMX**<sup>1</sup> A. WAGNER, C. BOUTAN, M. HOTZ, D. LYAPUSTIN, L.J. ROSENBERG, G. RYBKA, U. of Washington, S.J. ASZTALOS, G. CAROSI, 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, U. of Florida, R. BRADLEY, National Radio Astronomy Observatory, J. CLARKE, U. of California, Berkeley, ADMX COLLABORATION — The Axion Dark Matter eXperiment (ADMX) is a microwave cavity detector designed to search for the standard axion that may exist as a solution to the strong-CP problem. In addition this experiment is also sensitive to other light bosons such as hidden sector photons, chameleons, etc. Here we describe proof-of-concept experiments run with the ADMX Phase I system to search for these new particles as well as describe sensitivity expected from ADMX Phase II, currently under construction.

<sup>1</sup>Supported by DOE Grants DE-FG02-97ER41029, DE- FG02-96ER40956, DE-AC52-07NA27344, and DE- AC03-76SF00098, and the Livermore LDRD program.

A. Wagner  
U. of Washington

Date submitted: 11 Jan 2012

Electronic form version 1.4