Abstract Submitted for the DNP06 Meeting of The American Physical Society

Technology for Next Generation Dark-Matter Axion Searches<sup>1</sup> DARIN KINION, S.J. ASZTALOS, G. CAROSI, C. HAGMANN, L.J. ROSEN-BERG, K. VAN BIBBER, Lawrence Livermore National Laboratory, L.D. DUFFY, P. SIKIVIE, D.B. TANNER, University of Florida, R. BRADLEY, NRAO, ADMX COLLABORATION — The ADMX Collaboration has set limits on the axion-tophoton coupling for axion mass between 1.9 and 3.3  $\mu$ eV, assuming both that axions dominate the local halo density and are 'hadronic' or KSVZ axions. A definitive search should relax both constraints, i.e. be sensitive to DFSZ model axions comprising a fraction of the local halo density. We will show that such a search could be realized using near-quantum-limited microwave amplifiers based on dc SQUIDs. The first phase of this upgrade is currently underway.

<sup>1</sup>Supported by the U.S. DOE contracts W-7405-ENG-48 at LLNL and DE-FG02-97ER41029 at UF.

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Date submitted: 30 Jun 2006

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