

Abstract Submitted
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Searching for Dark Matter Axions with ADMX and ADMX-HF¹ GIANPAOLO CAROSI, Lawrence Livermore National Laboratory, ADMX COLLABORATION², ADMX-HF COLLABORATION³, BLAST TEAM⁴ — The axion is a neutral pseudoscalar boson predicted to exist as a consequence of the Peccei-Quinn solution to the Strong-CP problem. Axions with masses between μeV - meV are also a natural dark matter candidate. The Axion Dark Matter Experiment (ADMX) searches for dark matter axions by looking for their resonant conversion to detectable photons via the Primakoff Effect in a microwave cavity immersed in a strong static magnetic field. Here I will briefly discuss the progress on construction of the upgraded ADMX and ADMX-High Frequency experiments at the University of Washington and Yale University, respectively. In addition I will present on progress towards higher quality factor cavities based on superconducting thin film coatings which may benefit both experiments.

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