

Current Status of the ADMX Experiment

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The Axion Dark Matter eXperiment (ADMX) is a DOE “Generation 2” direct-detection dark matter project searching for axions in the few to 10s of microeV mass range. It uses a large (100+ liter) RF cavity inserted in an 8 Tesla solenoid magnet to resonantly convert primordial axions to detectable microwave photons. Over the last decade the ADMX experiment has undergone multiple upgrades including the installation of a new, high-power, dilution refrigerator. As a result of these upgrades the ADMX experiment is now operating with unprecedented sensitivity (down to pessimistic DFSZ axion-photon couplings). Here I will present an overview of the ADMX experiment as well as present some preliminary results from our most recent data run.

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