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Brief Overview of the Axion Dark Matter Experiment (ADMX)

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The Axion Dark Matter eXperiment (ADMX) is a haloscope search for the dark matter axion. The QCD axion, if discovered, solves both the strong CP problem in nuclear physics and the dark matter problem in cosmology. ADMX seeks to detect axions by their resonant conversion to microwave photons in a high Q cavity immersed in a strong magnetic field. Because the expected signal is of yocto-watt ($10e-24$ W) order, ADMX Generation-2 (ADMX-G2) employs a dilution refrigerator and quantum noise limited SQUID amplifiers to achieve its necessary sub-kelvin cavity temperature and low noise sensitivity. This presentation highlights axion exclusion limits from previous runs and future run plans

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