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Updates from the ADMX-HF Experiment TIMOTHY SHOKAIR, University of California, Berkeley — The Axion Dark Matter eXperiment - High Frequency (ADMX-HF) is a a collaboration of JILA/Colorado, LLNL, UC Berkeley, and Yale to search for dark matter axions in the 4-10 GHz (20-100 μev) range. The method is to convert axions into photons via the Primakoff effect in a cylindrical microwave cavity immersed in an ultra-cold 9T magnet. In addition to probing a new mass range of axions, ADMX-HF will serve as a test-bed for new concepts in microwave cavity axion detection. Concepts include hybrid superconducting cavities and operation in squeezed-state modes to reduce amplifier noise. The experiment is currently in the commissioning phase, and is expected to be in full data-taking mode by the end of 2014.

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