Contribution ID: **36** Type: **Presentation**

ADMX: Recent results at the DFSZ frontier

Monday 18 June 2018 09:25 (35 minutes)

The Axion Dark Matter eXperiment (ADMX) is conducting a search for axions trapped in the dark-matter halo of our Galaxy. ADMX employs a large-volume superconducting magnet, a high-Q tunable microwave cavity, an ultrasensitive SQUID microwave amplifier, and a high-performance dilution refrigerator to enable temperatures in the 80-200 mK range for cavity and SQUID. In the last year, this "Generation 2" ADMX detector has reached the sensitivity to detect axions even in the case where their coupling to two photons is as weak as the somewhat pessimistic DFSZ theory. The ADMX detector, located at the University of Washington, has completed its first run at this design sensitivity. There were no detections and the search continues with a second science run. The resulting limits on axion mass, the prospects for the ongoing search, and the outlook for the future will be discussed.

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