



Contribution ID: 227

Type: **Poster**

## **Chiara Pancaldo Salemi (MIT): ABRACADABRA, A Search for Low-Mass Axion Dark Matter**

*Wednesday 21 February 2018 18:53 (1 minute)*

ABRACADABRA, A Broadband/Resonant Approach to Cosmic Axion Detection with an Amplifying B-field Ring Apparatus, is an experiment that searches for ultra-light axion and axion-like dark matter in the mass range  $10^{-14} - 10^{-6}$  eV. It uses a toroidal magnet to source an oscillating effective electric current from interactions with the axion field. This current is then detected and amplified with a SQUID magnetometer. Axions' tiny electromagnetic coupling means that the experiment must be highly sensitive and have minimal background noise. This talk will present the current status of the first generation of the experiment, ABRACADABRA-10cm.

**Author:** SALEMI, Chiara (Massachusetts Institute of Technology)

**Presenter:** SALEMI, Chiara (Massachusetts Institute of Technology)

**Session Classification:** Poster Session