Physics and Space Sciences Department Colloquium

Axion Dark Matter Searches

Ian Stern
Research Assistant
University of Florida

Nearly all astrophysical and cosmological data point convincingly to a large component of cold dark matter (CDM) in the Universe. The axion particle, first theorized as a solution to the strong charge-parity problem of quantum chromodynamics, is now by far the most promising candidate for the constitution of cold dark matter. Two experiments, the Axion Dark Matter eXperiment (ADMX) and the Axion Dark Matter eXperiment High-Frequency (ADMX-HF), are conducting direct-detection searches for axion dark matter. Astrophysical observations in support of dark matter theory and axions as a dark matter candidate will be presented, as well as the status of experiments, current research and development, and projected results.

Friday October 2, 2015
4:00-5:00 PM
OPS Room 140

Light refreshments will be provided