Contribution ID: **56** Type: **not specified**

CAPP18T: Dark matter axion search experiment using 18T 7cm bore diameter high Tc superconducting magnet

Tuesday 16 May 2017 12:25 (20 minutes)

We present progress of developing axion dark matter search experiment using 18T and 7cm bore diameter high Tc superconducting (HTS) magnet at the Center for Axion and Precision Physics laboratory. This CAPP18T experiment is designed to probe resonance frequency range of 3.5GHz to 4.2GHz which is equivalent to the dark matter axion mass range of 14 ueV to 17 ueV sensitive to the KSVZ coupling. In this presentation, we will cover the progress of overall experimental design, the HTS magnet development at SuNAM Co. Ltd, progress in cryostat design, magnet shielding and cancellation, and essential components of the experiment.

Primary author: Prof. YOO, Jonghee (KAIST/IBS)

Presenter: Prof. YOO, Jonghee (KAIST/IBS)

Session Classification: Session 6