

Axion dark matter search at CAPP

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The axion is a consequence of the PQ mechanism to solve the strong-CP problem and has been considered as an attractive candidate for cold dark matter. The Center for Axion and Precision Physics Research (CAPP) of the Institute for Basic Science (IBS) in South Korea has completed the construction of the infrastructure for axion dark matter search experiments. Multiple experiments are currently under preparation for parallel operation targeting at different mass ranges. The ultimate goal of our center is to be sensitive to the QCD axion models over a wide range of axion mass. The current approaches to achieve this goal are three folds – commissioning high field magnets, designing high frequency cavities, and developing low noise amplifiers. We present the status of the experiments and discuss the future prospects.

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