

Axion dark matter search at IBS/CAPP

Monday, 27 August 2018 17:30 (20 minutes)

Since its prediction, the axion has been considered as the most compelling solution to the strong-CP problem and a leading 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, with one in data acquisition mode, for parallel operation targeting at different mass ranges. The ultimate goal of our center is to be sensitive to the DFSZ model over a wide range of axion mass. The current approaches to achieve this goal are three folds –commissioning of high field magnets, designing high frequency cavities, and developing low noise (nearly quantum noise limited) amplifiers. We present the status of the experiments and discuss the future prospects.

Presenter: Dr YOUN, Sung Woo (IBS CAPP)

Session Classification: IBS Session