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Cavity haloscopes remain the most sensitive approach for searching for

axion dark matter, utilizing resonant microwave cavities in strong magnetic fields to detect axion-induced photons.

The Center for Axion and Precision Physics Research (CAPP) has established a world-class experimental facility to advance this technique in Korea.

Building on this foundation, the Dark Matter Axion Group (DMAG) continues and expands this legacy by leveraging cutting-edge technologies—including multiple magnet/cryogenic systems, high-Q tunable microwave resonators, and quantum-limited amplifiers such as JPAs.

With these capabilities, CAPP/DMAG is among the few programs capable of probing the theoretically favored axion-photon coupling parameter space.

This talk will present the current status of DMAG's haloscope experiments and outline future plans to accelerate the search for axion dark matter.

Author: YOUN, Sungwoo

Presenter: YOUN, Sungwoo

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