Poster Session #A
Laboratory tests of gravitation

A18

Dark matter Axion search with riNg Cavity Experiment DANCE: Development of control systems for long-term measurement

Hiroki Fujimoto (University of Tokyo)

Axion-like particles (ALPs) are pseudo-scalar particles that are candidates for ultralight dark matter. ALPs interact with photons slightly and cause the rotational oscillation of linear polarization. DANCE searches for axion dark matter by enhancing the rotational oscillation in a bow-tie ring cavity. The signal to noise ratio of DANCE can be improved by long-term observation, and we are planning 1-year observation for the final DANCE. In this poster session, I will report on the developed control systems of the ring cavity for the future long-term observation.