

Search for axionlike particles with ferromagnetic system.

Ferromagnetic materials offer the unique advantages of an exceptionally high spin density and large remanent magnetization. When levitated, a ferromagnet can serve as an ultrasensitive magnetometer, while soft ferromagnetic materials with low remanence provide efficient magnetic shielding. In this talk, I will introduce a hybrid ferromagnetic platform that combines these complementary functionalities. The resulting system achieves ultrahigh magnetic sensitivity together with a broad detection bandwidth.

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