Workshop on Cosmic Indicators of Dark Matter 2024



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Searches for wavelike dark matter utilizing superconducting qubits

Wednesday 16 October 2024 14:00 (40 minutes)

A DFSZ axion search needs a detector that has an extreme sensitivity to photons. Due to its huge electric dipole moment and intrinsic low noise feature, superconducting qubits are an excellent candidate for the searches. In this talk, we introduce ways to utilize superconducting qubits in dark matter searches and these experimental statuses. Also, we mention a strategy for axion searches by applying magnetic field to superconducting qubits.

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