



Bose.X's Webinar Series on "Advances in Experimental Methods for Quantum Science and Technology" presents:

Superconducting Qubits for Dark-Matter Searches

Detection mechanisms for low-mass bosonic dark matter candidates, such as the axion or hidden photon, leverage potential interactions with electromagnetic fields, whereby the dark matter (of unknown mass), on rare occasions, converts into a single photon. Current dark matter searches operating at microwave frequencies use a resonant cavity to coherently accumulate the field sourced by the dark matter and a near-standard quantum limited (SQL) linear amplifier to read out the cavity signal. To further increase sensitivity to the dark matter signal, sub-SQL detection techniques are required. In this interactive session, I will discuss the development of a novel microwave photon counting technique and a new exclusion limit on hidden photon dark matter.

2nd May 2023

20:30 IST

📍 ZOOM



Register here!



Speaker:

Akash Dixit

Dr Akash Dixit is a postdoctoral fellow at NIST Boulder, Colorado, USA. He earned a PhD in Axion dark matter search experiment in 2021 from the University of Chicago.



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