

## Sub-GeV Dark Matter Searches with QUEST-DMC

*Wednesday 1 May 2024 15:40 (20 minutes)*

In this talk, the potential for detecting sub-GeV dark matter through the QUEST-DMC experiment will be explored. The experiment employs a novel approach, utilizing superfluid Helium-3 (He-3) alongside quantum sensors. Superfluid He-3 is highlighted as an optimal medium for sub-GeV dark matter searches, particularly effective in spin-dependent interactions. The presentation will cover the projection sensitivity to diverse dark matter models and establish upper bounds on dark matter interactions due to stopping effects induced by atmospheric elements.

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**Session Classification:** Talks