

## DMRadio: The Search for $< 1\mu\text{eV}$ Axions

*Thursday 27 March 2025 17:05 (15 minutes)*

The nature of dark matter remains one of the greatest open questions in physics. The DMRadio program focuses on axions with masses below  $1\mu\text{eV}$ , a highly motivated parameter space linked to GUT-scale physics and dark matter produced before inflation. Exploring this regime presents unique challenges, requiring large magnets and precision sensing techniques that push beyond the Standard Quantum Limit (BSQL). In this talk, I will discuss the strong motivation for these axions and outline DMRadio's staged strategy for a definitive search: DMRadio-50L, DMRadio-m3, and DMRadio-GUT.

**Author:** WINSLOW, Lindley

**Presenter:** WINSLOW, Lindley

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