

DMRadio-m3: An Overview

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Targeting the DFSZ model of the axion between 30 and 200 MHz and the KSVZ model down to 10 MHz, DMRadio-m3 will operate a lumped-element LC resonator at unprecedented sensitivities. The m3 experiment uses a 4.6 T superconducting solenoidal magnet design, as opposed to the toroidal design that is intended for the DMRadio-50L search. The m3 detector is comprised of a lumped element LC resonator and low noise receiver chain using dc SQUIDS, requiring vibration mitigation strategies. We present the overview of the DMRadio-m3 experiment and a broad path forward to its commissioning at SLAC.

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