

Contribution ID: 105 Type: Oral presentation

## Status of DMRadio 50L and m<sup>3</sup>

Tuesday 19 July 2022 16:10 (20 minutes)

DMRadio is a series of experiments that searches for axions using the axion-photon coupling at frequencies lower than those which have been achieved with conventional cavity haloscopes. In this talk we present the status of two experiments of the DMRadio program: DMRadio 50L and DMRadio  $\rm m^3$ . DMRadio 50L uses a toroidal magnet and a high-Q LC-oscillator with target sensitivity to axions with  $g_{a\gamma\gamma} < 5 \times 10^{-15} \rm GeV^{-1}$  between 5 kHz and 5 MHz (20 peV to 20 neV). DMRadio  $\rm m^3$  consists of a higher frequency LC-oscillator in a solenoidal magnet with target sensitivity to QCD axions between 5 MHz and 200 MHz (20 neV to 0.8  $\rm \mu eV$ ).

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**Session Classification:** Parallel 2B - Axions