

New technology and breakthroughs in axion dark matter search

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The axion dark matter search, even up a few years ago, looked nearly impossible to reach theoretically interesting sensitivities due to very feeble coupling strengths with ordinary matter and with itself. Recently, ADMX has reached DFSZ level sensitivities for frequencies below 1 GHz. Above 1 GHz, the situation becomes again very difficult very rapidly, but our recent breakthrough innovations and technological achievements make it possible to reach DFSZ level sensitivities for the 1-20 GHz frequency range eventually even for 10% of axion fraction in the local dark matter density.

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