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An overview of Axion Dark Matter eXperiment: current status and future plans

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QCD axion is a well-motivated dark matter candidate which is capable of solving the strong CP problem and explaining the abundance of dark matter at the same time. Axion Dark Matter eXperiment (ADMX) searches for conversions of QCD axions into microwave photons with high-Q tunable resonators running in a strong magnetic field. In the current ADMX Gen 2 phase, thanks to an ultra-low-noise amplifier chain, we have reached the sensitivities for both benchmark models, Kim-Shifman-Vainshtein-Zakharov (KSVZ) and Dine-Fischler-Srednicki-Zhitnitsky (DFSZ), in the golden micro-eV axion mass region. In this talk, I will give an overview of the latest status of the most recent round of data taking, current R&D efforts and future plans.

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