

Abstract Submitted
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Design of the ADMX Gen2 Axion Search¹ NICK DU, Univ of Washington, ADMX COLLABORATION — Axions are hypothetical elementary particles that may help provide the answer as to why QCD preserves the discrete symmetries P and CP. Light axions also have properties that make them ideal dark-matter candidates. The Axion Dark Matter eXperiment (ADMX), has been at the forefront of the search for dark-matter axions for over a decade, and over the past few years has undergone upgrades to dramatically improve its sensitivity. 2017 was a particularly exciting year for ADMX as we collected our first science data for Generation 2 of the experiment, and has sensitivity to the entire axion-photon coupling range for invisible QCD axions over a range of axion masses. I will discuss the unique design of the ADMX experiment that has allowed us to reach this unprecedented level of sensitivity.

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