

Abstract Submitted
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Status and Overview of the Axion Dark Matter Experiment (ADMX)¹ LESLIE ROSENBERG, University of Washington, ADMX COLLABORATION, ADMX-HF COLLABORATION — The axion is a hypothetical particle that both explains why the strong force is CP invariant and answers the question of what constitutes the dark matter in the universe. ADMX is a direct search for dark-matter axions. The search technique is based on the resonant conversion of axions into photons with an apparatus consisting of a microwave cavity threaded by a magnetic field, and quantum-limited microwave amplification. This experiment, in several different configurations, is now beginning operations with enough sensitivity to either detect the “QCD axion” or reject that hypothesis at high confidence. This talk is an overview of the ADMX project and its search capability.

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