Abstract Submitted
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Searching for Higher Mass Dark Matter Axions[1] ROBERT PERCIVAL, Univ of Washington, ADMX COLLABORATION — Axions are a promising dark matter candidate with masses constrained to be roughly between a μeV and a meV. Experiments searching for axions with masses of 1-10 μeV using microwave cavities are already in operation. However, some models favor masses 40 μeV and above, where microwave cavity experiments face significant challenges. This mass range may be accessible with a series of wire planes placed inside an open resonator or Fabry-Perot etalon. I will describe a prototype of this technique searching for axions of approximately 70 μeV corresponding to cavity and receiver operating in the 17GHz range.

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