

Abstract Submitted  
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**Search for Axions in the 70cm Range**<sup>1</sup> ROBERTSEN RIEHLE, Mississippi State University, MASS COLLABORATION — In 1967 Andrei Sakharov introduced three conditions to produce a universe with a non-zero baryon number. One of those conditions was that charge and charge-parity (CP) symmetry needed to be violated. CP symmetry has not observed in the strong sector although the Standard Model of Particle Physics allows it. In 1977, Peccei and Quinn proposed a solution to this this low upper bound on the observed strong force CP violation. The solution required a new particle called an axion. Finding and understanding the axion could solve the strong CP problem. The MASS experiment at Mississippi State University utilizes a dipole magnet, a radio field and a conducting wall dividing an evacuated cavity into two. If axions are present, they could be observed beyond the wall in the “dark” end of the cavity. This experiment is still in building and testing phase.

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