

New ideas on the axion search experiment via topological Casimir Effect

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We propose a new table-top experimental configuration for the direct detection of dark matter axions. Different from most experimental setups found in literature on direct dark matter axion detection, which relies on $\dot{\theta}$, we found that our system is in principle sensitive to a static theta as a result of the nontrivial topological features of the Maxwell system. We explain some connections to Aharonov Bohm effect and Witten effect. Talk is mostly based on recent arxiv 1702.00012.

Summary

I request a sufficient time slot for my talk as I want to explain couple of novel ideas which are not normally known by the community working on the axion search experiments

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