

Abstract Submitted
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The Global Network of Optical Magnetometers to search for Exotic physics (GNOME) : experimental scheme YUN CHANG SHIN, CAPP/IBS, DONG-OK KIM, YOUNGGEUN KIM, YANNIS SEMERTZIDIS, KAIST, CAPP/IBS, GNOME COLLABORATION — The Global Network of Optical Magnetometers to search for Exotic physics (GNOME) is an experiment to search for transient events of axion domain walls based on a novel scheme: synchronous measurements of high precision optical magnetometer signals from multiple stations around the Earth. This experiment now consists of more than 10 magnetometer stations located geographically well apart from each other. The GNOME is particularly sensitive to terrestrial events of topological defects such as axion domain walls and interactions of atomic spins with exotic fields of astrophysical origin. We present the experimental scheme and results of the first network run for testing feasibility.

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