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Progress on the Global Network of Optical Magnetometers to search for Exotic physics (GNOME)[1] DMITRI BUDKER, Helmholtz Institute, Mainz, Johannes Gutenburg University. University of California, Berkekey, GNOME COLLABORATION — We discuss progress on the construction, implementation, and coordination of a network of geographically separated, time-synchronized ultrasensitive atomic magnetometers and comagnetometers to search for correlated transient signals heralding new physics. The **G**lobal **N**etwork of **O**ptical **M**agnetometers to search for **E**xotic physics (GNOME) is sensitive to nuclear and electron spin couplings to various exotic fields generated by astrophysical sources. A specific example of new physics detectable with the GNOME, presently unconstrained by previous experiments, is a network of domain walls of light pseudoscalar (axion-like) fields.

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