## 19th Patras Workshop on Axions, WIMPs and WISPs



Contribution ID: 17 Type: Talk

## Search for Ultralight DM with SNIPE Hunt Experiment.

Monday, 16 September 2024 14:15 (20 minutes)

Ultralight dark matter, such as from dark photons or axion-like particles, can produce a coherent oscillating magnetic field signal at the Earth's surface, arising from the boundary conditions of the conductive Earth and the ionosphere. The Search for Non-Interacting Particles Experiment (SNIPE) Hunt collaboration utilizes a network of magnetometers placed in RF quiet locations to detect these signals. In our first science run, we established tighter limits on axion-like particle couplings and dark photon mixing parameters for frequencies ranging from 1 to 5 Hz. Efforts are underway to broaden the search to higher frequencies and increase measurement sensitivity. Results from our first science run and current work will be presented.

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