

Abstract Submitted
for the APR21 Meeting of
The American Physical Society

ALPS II Data Analysis¹ DANIEL BROTHERTON, University of Florida, ALPS COLLABORATION — Phenomena such as dark matter, TeV transparency, and excess stellar cooling, can be explained by the presence of axion-like particles. A new search for such particles will soon be taken up by the Any Light Particle Search II (ALPS II), a light shining through a wall experiment. To measure the weak field of the regenerated light, of order one photon per day, ALPS II will use a heterodyne interferometric sensing scheme. This sensing scheme will produce a continuous stream of valid and invalid data. I will discuss some of the data analysis techniques that will be used and how a photon per day count can be extracted out of the data. I also discuss how confidence in a detection can be established.

¹We acknowledge the support received from the National Science Foundation (Grant No. PHY-1802006) and the Heising-Simons Foundation (Grant No. 2015-154 and No. 2020-1841).

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Date submitted: 07 Jan 2021

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