

Abstract Submitted
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Heterodyne Design for ALPS II experiment¹ AYMAN HAL-LAL, GIUSEPPE MESSINEO, JOSEPH GLEASON, DAVID TANNER, GUIDO MUELLER, Univ of Florida - Gainesville, ALPS TEAM — The Any Light Particle Search II (ALPS II) is a Light Shining through Walls (LSW) experiment which searches for axions and axion-like particles which couple to photons in the presence of a high magnetic field. The ALPS project develops two different detection methods. One is a classical photon counting technique which uses a cryogenic transition edge sensor. The heterodyne (HET) detection technique takes advantage of the spatial and temporal coherence of the regenerated electromagnetic field with the initial generating laser field and is currently being developed in our laboratories at the University of Florida. I will report on the tests and design work of the optical bench for HET which address issues related to coherent control and stray light.

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