

Abstract Submitted  
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**Study of systematic effects in search for CP-violating decays of positronium** JAKE MURPHY, UNC Chapel Hill Physics, CHELSEA BARTRAM, JOULE OTHMAN, REYCO HENNING, UNC Experimental Nuclear and Astroparticle Physics Group — CALIOPE, the CP Abberant Leptons in o-Ps Experiment, searches for CP-violating gamma ray angular correlations in the decay of positronium. It uses a cylindrical array of sodium iodide detectors and an electromagnet to spin-polarize the positronium. Systematics related to the magnetic field, uncertainty of decay origin, and detector geometry and inefficiencies are studied using two Monte Carlo simulations of varying complexity. We present the results of systematics studied using these Monte Carlo simulations and their ultimate impact on the experiment's sensitivity.

Jake Murphy  
UNC Chapel Hill Physics

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