

Title: Thorlabs' Quantum Optics Kit

Abstract:

Thorlabs' educational product line is designed to inspire students and educators by providing hands-on access to experiments in optics and photonics. This presentation introduces the Quantum Optics Educational Kit, a versatile platform that enables the exploration of quantum phenomena using single and entangled photons. Attendees will learn how to characterize a heralded single-photon source and use coincidence counting techniques. We will also cover the Polarization-Entanglement Add-On, which extends the core kit for experiments involving Polarization-Entangled photon pairs, explain how polarization-entangled pairs can be used to measure the violation of Bell's inequality, and conclude with a discussion of further experiments possible with the kit.



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