

Abstract Submitted
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Undergraduate Research Project on Characterization of Quantum Interference in Spontaneous Emission in an Atomic Gas with a Single Pulsed Laser¹ MATTHEW WRIGHT, JULIANNA YEE, OLIVIA CHIERCHIO, Adelphi University — We are currently investigating the quantum interference in spontaneous emission in a dilute thermal atomic gas with an intense pulsed laser beam. A short pulse of the light (~ 6 ns) is used to excite Rb atoms in a room-temperature cell. During the exponential decay, we have been able to detect a quantum beat which is consistent with the hyperfine level-splitting of the excited state manifold. We plan to investigate how these beats vary on frequency, polarization, and other laser parameters.

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