Abstract Submitted
for the OSF08 Meeting of
The American Physical Society

Intensity auto- and cross-correlations for a driven optical cavity coupled to a three-level atom[1] PATRICK HEMPHILL, JAMES CLEMENS, Department of Physics, Miami University — We present two-time intensity auto- and cross-correlations for the light transmitted through a driven optical cavity coupled to a single three-level atom in the Λ configuration. The atomic transitions couple to two orthogonally polarized cavity field modes on resonance. One of the cavity modes is weakly driven by an external coherent field. We model this cavity quantum electrodynamics (QED) system using a quantum trajectory unraveling of the master equation based on direct photodetection of the transmitted light.

[1]Supported by Research Corporation under award number CC6822/6875

James Clemens
Department of Physics, Miami University

Date submitted: 05 Sep 2008 Electronic form version 1.4