Intensity auto- and cross-correlations for a driven optical cavity coupled to a three-level atom\textsuperscript{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.

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