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Nonclassical Effects in Multilevel Electromagnetically Induced Transparency MITCH MAZZEI, PERRY RICE, THOMAS JENKINS, Miami Univ — We examine a multilevel system that can exhibit EIT or EIA under appropriate conditions. These effects can be understood in terms of classical coupled oscillators. We examine whether nonclassical behavior is exhibited in the EIT/EIA regime, and elsewhere. Nonclassical behavior cannot be described by a classical stochastic process, no mean field plus noise. Those cannot be described by two classical oscillators. We propose a multilevel photonic memory in this system as well.

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