

Abstract Submitted
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EIT with noisy laser fields YANHONG XIAO, Harvard-Smithsonian CfA, TUN WANG, SUSANNE F. YELIN, University of Connecticut, MARIA BARYAKHTAR, DAVID F. PHILLIPS, RONALD L. WALSWORTH, Harvard-Smithsonian CfA — We have investigated noise processes in Electromagnetically Induced Transparency (EIT). We identify a resonance resistant to power broadening and a novel form of EIT manifested by dips in intensity noise spectra, caused by reduced conversion of phase noise to intensity noise. An intuitive explanation in good agreement with numerical calculations and experimental results will be presented. These results have applications in spectroscopy, atomic clocks and magnetometers.

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