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EIT Amplitude Noise Spectroscopy MICHAEL CRESCIMANNO, Department of Physics and Astronomy, Youngstown State University, BEN WHITENACK, ANDREW FUNK, SHANNON O'LEARY, Dept. of Physics, Lewis and Clark College — EIT Intensity noise spectroscopy is a (intrinsic) FM spectroscopy method usually achieved by computing a statistical quantity in the transmitted light intensities. Understanding these intensity fluctuations and their statistics in terms of EIT noise amplitudes leads to a more complete description of the underlying atom-photon interaction and a simpler way to apply noise spectroscopy in emerging technology such as atomic vector magnetometry. We report on our recent experiments that provide tests of our semiclassical quantum optics theory model of EIT noise.

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