DAMOP05-2005-020082

Abstract for an Invited Paper
for the DAMOP05 Meeting of
the American Physical Society

Slow and Stored Light in Atomic Ensembles

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Recent laboratory demonstrations have shown that the propagation of light pulses can be greatly slowed down, and even effectively halted and re-started, using electromagnetically induced transparency (EIT) in atomic ensembles, both warm and cold. In this talk I will discuss the concepts behind such "slow" and "stored" light, including similarities to other, well-known physical phenomena. I will also describe the status of ongoing experiments that seek to optimize and apply slow and stored light, e.g., to quantum communication.