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Coherent forward scattering of a single photon wave packet in a resonant medium

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Abstract

The propagation of a single photon wave packet in a thick resonant medium was studied theoretically and experimentally. The well-known acceleration of wave packet decay was observed upon wave packet exiting from a medium with single resonant absorption line. It was found that in a medium with two closely spaced absorption lines, the restoration of the photon wave packet is observed after the acceleration of decay. © 2010 Allerton Press, Inc.

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