

Abstract Submitted
for the MAR09 Meeting of
The American Physical Society

Quantum correlated light pulses from sequential superradiance of a condensate¹ MEHMET EMRE TASGIN, MEHMET OZGUR OKTEL, Department of Physics, Bilkent University, 06800 Bilkent, Ankara, Turkey, LI YOU, School of Physics, Georgia Institute of Technology, Atlanta, Georgia 30332, USA, OZGUR ESAT MUSTECAPLIOGLU, Department of Physics, Koc University, 34450 Sariyer, Istanbul, Turkey — We discover an inherent mechanism for entanglement swap associated with sequential superradiance from an atomic condensate. As a result, Einstein-Podolsky-Rosen (EPR)-type quantum correlated photons can be detected among the scattered light pulses.

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Date submitted: 25 Dec 2008

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