Slow and Fast Light Bullets and Vortices in Coherent Atomic Systems

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Abstract:

In recent years, much attention has been paid to the study of light-wave propagation in coherent atomic systems via electromagnetically induced transparency (EIT). One-dimensional slow-light solitons in such systems have been widely investigated. In this talk, we shall report the results of our recent studies on high-dimensional slow and fast light solitons (alias optical bullets) and vortices in resonant atomic gases through EIT-realated quantum coherence. In addition, we also present our study on the Stern-Gerlach effect of slow-light bullets in a cold atomic system.

References:

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