

Quantum Information and Entropy Squeezing of a Nonlinear Multi quantum JC Model

Mahmoud Abdel -Aty

Mathematics Department, Faculty of Science, South Valley University, Sohag, Egypt
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Abstract: We investigate the entropy squeezing of the nonlinear k-quantum JC model. A definition of squeezing is presented for this system based on the quantum information theory. The utility of the definition is illustrated by examining squeezing in the information entropy of a nonlinear k-quantum two-level atom. The influence of the atomic coherence and the detuning parameter on the properties of the information entropy and squeezing of the atomic variables is examined.

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Key words: information entropy, variance squeezing, nonlinear mediums

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