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Entropy squeezing for qubit - Field system under decoherence effect (Article)

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Abstract

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We study in detail the dynamics of field entropy squeezing (FES) for a qubit - field system whose dynamics is described by the phase-damped model. The results of calculations show that the initial state and decoherence play a crucial role in the evolution of FES. During the temporal evolution of the system under decoherence effect, an interesting monotonic relation between FES, Wehrl entropy (WE) and negativity is observed. © 2014 Kvantovaya Elektronika and Turpion Ltd.

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