论文

具有相位阻尼的Milburn主方程控制的双光子JC模型

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摘要：

该文利用超算子技术求出了相位阻尼下非共振双光子JC模型主方程的解析解，研究了其相位阻尼对光子数分布振荡，原子数反转与恢复和亚泊松光子分布等非经典效应的影响。研究表明：相位阻尼能抑制原子反转与恢复和腔场的非经典效应。

关键词： JC模型　Milburn方程　相位阻尼

分类号：

35B30;35B45

Two photon Jaynes Cummings Model Governed by the Milburn Equation with Phase Damping

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Abstract:

In this paper, the authors find an analytic solution of the master equation of a non resonant two photon Jaynes cummings model (JCM) with phase damping with the help of the super operator technique. The authors study the influence of phase damping on non classical effects in the JCM, such as oscillations of the photon number distribution, revivals of the atomic inversion, and sub Possion photon statistics . It is demonstrated that the phase damping suppresses the revivals of the atomi c inversion and non classical effects of the cavity field in the JCM.

Keywords: Jaynes Cummings model (JCM);　Milburn equation　Phas e damping

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