

Pseudo-invariant Eigen-operator for Deriving Energy-Level Gap for Jaynes-Cummings Model

FAN Hong-Yi^{1,2} and DA Cheng³

¹ Department of Physics, Shanghai Jiao Tong University, Shanghai 200030, China

² Department of Material Science and Engineering, University of Science and Technology of China, Hefei 230026, China

³ Department of Computer Science and Technology, University of Science and Technology of China, Hefei 230027, China

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Abstract: We extend the concept of invariant eigen-operator to pseudo-invariant eigen-operator case through analyzing the standard Jaynes-Cummings model. We find the pseudo-invariant eigen-operator in terms of supersymmetric generators of this model, which directly leads to the energy-level gap for Jaynes-Cummings Hamiltonian.

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Key words: pseudo-invariant eigen-operator method, Jaynes-Cummings model, energy gap

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