عنوان مقاله:

Quantum averaging and resonances: two-level atom in a one-mode classical laser field

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خلاصه مقاله:

We use a nonperturbative method based on quantum averaging and an adapted from of resonant transformations to treat the resonances of the Hamiltonian of a two-level atom interacting with a one-mode classical field in Floquet formalism. We illustrate this method by extraction of effective Hamiltonians of the system in two regimes of weak and strong coupling. The results obtained in the strong-coupling regime, are valid in the whole range of the coupling constant for the one-photon zero-field resonance.

کلمات کلیدی:

quantum averaging, two-level atom, Floquet formalism, resonant transformation, nonlinear resonance