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## **Analytical calculation of phase bistability switching rates in dissipative Jaynes-Cummings model**

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We study the dynamics of a dissipative Jaynes-Cummings model subject to a strong resonant drive. Above a certain drive threshold there appear two metastable states in the stationary state with roughly the same field amplitude but different phases which are well captured by the bifurcation in the neo-classical approach. Their appearance is associated with the splitting of the spectrum of the corresponding Liouvillean heralding the quantum bistability. We focus on the analytical evaluation of the switching rates between the two metastable states which we achieve by a generalized Fermi-golden-rule-like method based on a precise estimate of the character of the metastable states. We find simple analytical expression for the rate surprisingly of non-exponential (i.e., non-Arrhenius) form, which nevertheless matches nearly perfectly the numerical results.

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