Exact results for Landau-Zener transitions
in a system of interacting spins

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A set of spins interact with each other by an arbitrary anisotropic interaction and with external magnetic field. The field varies linearly with time and thus induces spin flips. Such statement of problem corresponds to the multistate Landau-Zener model, which allows to find several transiton probabilities exactly. The problem reduces to calculating of nonzero matrix elements of Hamiltonian. In the case of two interacting spins the problem becomes exactly solvable one.