

Stochastic Schroedinger equations and non-Markovian open quantum systems with dissipation

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Stochastic Schroedinger equations (SSEs) are a powerful mathematical formalism which allow for insight into physical systems, like e.g. collapse models. These equations can also be used to study open quantum systems, since they allow for a stochastic unravelling, where the environment is described by a noise. The advantage of this approach is that it allows for analytic treatment of non-Markovian open quantum systems, which are described by a noise with a general time correlation function. We show that this method is also suitable to study the analytical behavior of non-Markovian systems including dissipative effects.

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