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Type: **Poster**

Kadanoff-Baym equations for open quantum systems

We want to study the quantum mechanical formation of bound states now also in three dimension with the full Kadanoff-Baym equations and compare them to purely uncorrelated approaches with and without memory effects. %(Quantum-Kinetic-Master equations).

Furthermore, an in-depth examination of the thermodynamics of open systems is warranted, along with a more comprehensive investigation into the influence of the bath on the system wave function.

We evaluate the non-equilibrium Kadanoff-Baym equations for the system particles, assuming that interactions are elastic two-particle collisions with the heat-bath particles. We describe in detail the method used to numerically solve the corresponding spatially heterogeneous integro-differential equations for the one-particle Greens's function.

Category

Theory

Collaboration (if applicable)

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