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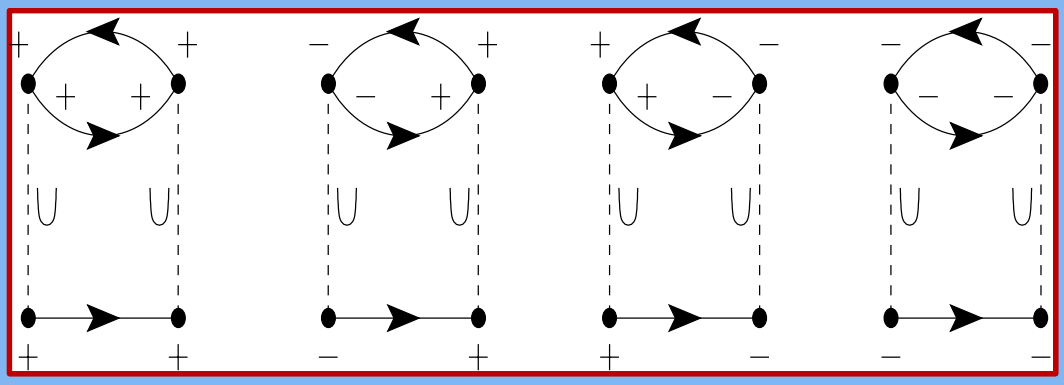
# Quantum Dynamics: Exploring the Extremes

Edited by
Regine Frank and Stefan Hildebrandt



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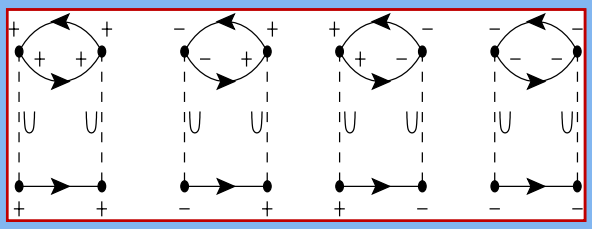

Figure: Iterated perturbation theory - A solver at the heart of the dynamical mean field theory (DMFT) in the non-equilibrium. Displayed is the diagrammatical representation of the local self-energy within the IPT with its four contributing diagrams in Keldysh representation.
Reference: R. Frank New J. Phys. 15, 123030 (2013).

## TOPICAL ISSUE

# Quantum Dynamics: Exploring the Extremes

**GUEST EDITOR**
**Regine Frank**
EMAIL: regine.frank@googlemail.com

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## SCOPE

Quantum physics is conceptionally fascinating ever since, but switching devices were more engineering problems than physics problems until quantum effects and far-from-equilibrium processes were discovered. However, in recent years quantum effects became accessible in the laboratory: We now speak about ultrafast high-amplitude quantum excitations in semiconductors with the potential for ultracoherent storages and extreme switching times. Modern technology is no longer conceivable without quantum dynamics and strong correlations.

In this special issue we will address these *dynamics* specifically with coherence times, life times as well as delays of resonances and light–matter interactions, the physics beyond *Schroedingers Cat*.

## ARTICE CATEGORIES

**Review Articles** (typically 15-25 pages), tracing a field and its development comprehensively and well balanced, based on a thorough review of the literature

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