

Eugene Wigner Colloquium

joint event of GRK 1558 and SFB 910



Prof. Raymond Kapral

University of Toronto, Canada

“Quantum Dynamics in Open Quantum-Classical Systems”

In an open quantum system interactions with the environment can lead to decoherence and dissipation, which have a marked influence on its properties. In many instances the environment is well-approximated by classical mechanics, so that one is led to consider the dynamics of open quantum-classical systems. The talk will focus on quantum-classical Liouville dynamics, one of several quantum-classical descriptions, and will describe the problems that arise when one attempts to combine quantum and classical mechanics, coherence and decoherence in quantum-classical systems, and nonadiabatic effects that arise from coupling to the environment. Some applications to quantum dynamics in complex many-body systems, such as energy transfer in light harvesting systems, will also be discussed.

H. Stark

Thursday, 12.02.15 · 16:15h · EW 202

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