

Donnerstag, 18.04.2013

Hörsaal C, Chemie Zentralbau, 17:15 Uhr

Sprecher: **Walter Strunz**
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Thema: **Stochastic dynamics of open
quantum systems: applications to
molecular aggregates**

Abstract: Stochastic approaches to quantum open systems are useful in two ways: they may help to develop a deeper understanding of the dynamics and they may be of benefit from a pure computational point of view. In particular, for structured environments that lead to non-Markovian features due to the appearance of memory effects, a stochastic method was developed that allows for an efficient treatment. Furthermore, the role of system-environment entanglement on the dynamics can be discussed within our stochastic approach. In this talk I want to present applications of our stochastic methods to absorption spectra and energy transfer dynamics in molecular aggregates. One of the nice properties of this stochastic picture is the very transparent demonstration of the transition from coherent quantum transport to an incoherent, almost classical transfer.

Organisation: *V. Engel*