FR PHYSIK

UNIVERSITÄT DES SAARLANDES

Fakultät 7
Physik und Mechatronik

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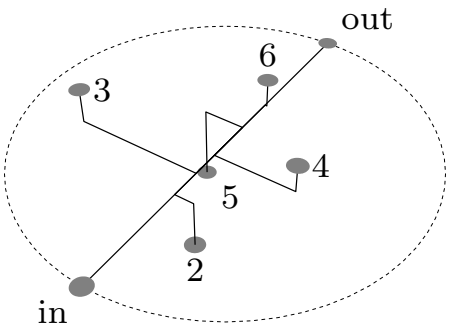
Universität Freiburg

"Transport, disorder, and entanglement"

Thursday, October 20th, 2011, 4:15 p.m.
Building C6 3, Lecture Hall II

A vivid debate has recently emerged on the possible role of quantum effects for excitation transport and charge separation in photosynthetic light harvesting. Ever more experimental evidence suggests that quantum coherence survives over stunningly long times at surprisingly high temperatures. The macromolecular structures under study are truly complex - and apparently quantum - systems, and define a fascinating challenge for experiment and theory.

In this talk, we will approach the problem from the perspective of quantum transport in disordered systems, and suggest a possible scenario of how generic quantum interference effects could assist excitation transport. We'll compare this scenario to the possibly constructive role of noise in such systems, and argue in favor of a constructive role of disorder rather than of noise, in a statistical sense.



Giovanna Morigi (57472) takes care of the guest

Interested people are cordially invited

Coffee at 4:00 p.m. in front of the Lecture Hall

PHYSIKALISCHES KOLLOQUIUM