



Quantum Efficiency Seminar und Colloquium

STEFAN FISCHER

Institute of Physics
Albert-Ludwigs-Universität Freiburg

Coherence in a Network of Two-Level Systems coupled to a Bosonic Field

ABSTRACT: A network of two-level systems linearly and locally coupled to mutual bosonic bath modes is investigated. In the subspace where only one excitation is present, the coupling to the bath constitutes a decoherence model for the network which is depending on the propagation speed of the bath modes as well as the distance of the sites. For a very low propagation speed/distant sites the network sites can be treated as interacting with separate baths, whereas for a very high propagation speed/close sites the influence of the bath disappears entirely.

Date: Tuesday, February 14th, 2012 14:15 pm
Location: Lecture Hall 1, Hermann-Herder-Str. 3, Freiburg

Contact: Andreas Buchleitner, Institute of Physics, Quantum Optics and Statistics
T +49 761 203 5821 F +49 761 203 5967 E buchleitner_office@physik.uni-freiburg.de
www.physik.uni-freiburg.de