



Avviso di Seminario

Venerdì 15 Ottobre 2004 alle ore 11.00

presso l' Aula Consiglio

del Dipartimento di Fisica e Tecnologie Relative

Viale delle Scienze, Edificio 18, Palermo

il

Dr. Rudi Schäfer

Quantum Chaos Group, Philipps-University

Marburg, Germany

terrà un seminario dal titolo:

*Measurement of the fidelity amplitude in
microwave systems.*

Abstract

The scattering matrix was measured for a flat microwave cavity with classically chaotic dynamics. The perturbation of the system was realized by applying small changes of the geometry. We define the scattering fidelity via correlation functions of scattering matrix elements, and discuss under which circumstances this quantity approaches the fidelity of the closed system. The experimental results for the fidelity amplitude are in good agreement with the linear response results for the Gaussian orthogonal ensemble. The perturbation strength extracted from the fidelity decay is in accordance with that obtained from the variance of level velocities.

Per informazioni contattare R. N. Mantegna (091-6615074 [m antegna@ unipa.it](mailto:mantegna@unipa.it)) **Dipartimento di Fisica e Tecnologie Relative**, Viale delle Scienze, Edificio 18, Palermo oppure consultare il sito internet <http://lagash.dft.unipa.it> alla pagina **Seminars**.

