



# 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.*

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