



**The Course of the PhD School in " Nano- and Physical Sciences" 2008**

Start **TUESDAY April 21 at 16 Room D –Department of Physics**

Lecturer  
Prof. Carlo Jacoboni

The Green Functions Method for the electronic Transport(6 ECTS)

1. Second Quantization: a short Review
2. Green Functions: Introduction
3. Wick and Wick-Matsubara Theorems
4. Perturbative Approach to the Green Functions - Feynman's Graphs and Dyson Equation
5. Non-equilibrium Green Functions and Transport: The Quantum Boltzmann Equation
6. Non-equilibrium Green Functions and Transport: Mesoscopic Systems

All lectures will be at  
Tuesday and Wednesday afternoon 16-18 Room D - Department of Physics  
10 lectures.

**Focus Groups will be arranged at the end of the course**

The Director of the PhD School in " Nano- and Physical Sciences"  
Prof. Stefano Ossicini