SFB 631

Festkörperbasierte Quanteninformationsverarbeitung

Seminar Announcement

Physics Colloquium

Location University of Regensburg, Dept. of Physics
Room H 34

Time Monday, 12th December 2005
4:15 p.m.

Speaker **Prof. Dr. Antti-Pekka Jauho**
MIC – Dept. of Micro and Nanotechnology,
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Title Transport in Nanoscale Systems

Abstract The theoretical scientist attempting to model transport in modern nanoscale systems faces many challenges. The number of atoms requiring a microscopic treatment may vary from a few to several millions. The transport may be coherent, or dominated by interaction effects. No single formalism can capture all the different facets, and in this talk we attempt to give a birds-eye-view of the various theoretical techniques available in the literature. As the accompanying figure illustrates there are indeed many approaches available, with complementary strengths and weaknesses. Whenever possible, comparison with experiments will be made.

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