Physikalisches Institut
Fakultät für Mathematik und Physik
Albert-Ludwigs-Universität Freiburg

QE

Quantum Efficiency Seminar und Colloquium

JOCHEN GEMMER

Fachbereich Physik
Universität Osnabrück

Boltzmann approach to transport in weakly interacting, near integrable, 1-d Fermionic systems

ABSTRACT: We investigate transport properties of weakly interacting fermions on a one-dimensional lattice. Depending on the hopping-matrix-elements the system may be integrable or non-integrable. By a projective mapping onto a linear Boltzmann equation we compute diffusion coefficients for the the non-integrable case and find non-diffusive behavior for the integrable models.

Date: **Tuesday, November 22nd, 2011 16:15 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