

SFB 608

Einladung zum Kolloquium

Ort: Universität zu Köln
II. Physikalisches Institut
Seminarraum 201

Zeit: 02. Juli 2008, 14:30 Uhr

Sprecher: Gergely Zarand
TU Budapest, Ungarn

Thema: Optical conductivity and scaling theory of magneto-resistance of disordered ferromagnets

I compare experimental resistivity data on GaMnAs films with theoretical calculations using a scaling theory for strongly disordered ferromagnets. I show that the characteristic features of the temperature-dependence of the resistivity can be quantitatively understood through this approach as originating from the close vicinity of the metal-insulator transition. I also construct an impurity band model to compute the optical conductivity of dilute ferromagnetic semiconductors. I find that the optical conductivity data of GaMnAs can consistently be explained within this approach.

Gez. A. Rosch