TECHNISCHE UNIVERSITÄT WIEN
INSTITUT FÜR FESTKÖRPERPHYSIK
WIEDNER HAUPTSTRASSE 8-10
A-1040 WIEN, AUSTRIA
TEL.: ++43-1-58801-13801
FAX: ++43-1-58801-13899
E-MAIL: SEKRETARIAT@IFP.TUWIEN.AC.AT

Einladung zum Seminar

Marc Scheffler

1. Physikalisches Institut, Universität Stuttgart

„Low-energy optics on heavy fermions“

Optical spectroscopy is a direct experimental access to the electronic properties of solids. Here the frequency of the employed light can be adjusted to the energy scales of interest; for heavy-fermion materials this means to rather low frequencies: infrared, THz, and microwaves. In recent years, several optical characteristics of heavy fermions have been studied, in particular the so-called hybridization gap, the slow Drude relaxation of the heavy charge carriers, and an “excitation” at sub-THz frequencies which is still not well understood.
After an introduction to the optical properties of heavy fermions, our THz and microwave studies on UPd_2Al_3 and UNi_2Al_3 will be discussed, including the extremely slow charge carrier dynamics and the anisotropy of microwave and THz conductivity.

Host: S. Bühler-Paschen

Mittwoch, 10. März 2010, 16:00 Uhr
Seminarraum 138B, 7. OG, Turm C (rot)
Wiedner Hauptstraße 8-10
1040 Wien