



TRR 80 Sonderseminar

Am Dienstag, den 5. Juni um 16:00 Uhr

spricht

Prof. Dr. Ilya Vekhter

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über das Thema

Probing anisotropic superconducting gaps with magnetic field

The energy gap in many novel superconductors is highly anisotropic, with either nodes (zeros) or deep minima at the Fermi surface. Locating these nodes, i.e. determining the directions along which the gap vanishes is a crucial step in identifying the underlying pairing interactions. I will show that rotation of the applied magnetic field relative to the nodes produces oscillations in the specific heat and electronic thermal conductivity that can be used to determine the location of the gap nodes or minima from bulk measurements. I will pay special attention to the inversion of the oscillation pattern as a function of temperature and field, which was theoretically predicted and recently found experimentally. I will provide a comparison of experiment and theory in the 115 heavy fermion compounds, two-dimensional organic superconductors, and pnictides.

Gäste sind herzlich willkommen.

Der Vortrag findet im Seminarraum S-288 / Institut für Physik, Universität Augsburg statt.

Gastgeber: Prof. Dr. Thilo Kopp
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