



Institutskolloquium

am Mittwoch, **17. November 2004 um 16:00 Uhr** spricht:

Prof. Dr. R. G. Ulbrich

Georg-August-Universität Göttingen, IV. Phys. Institut

über

“Impurities revisited: Scanning tunneling microscopy on metal and semiconductor surfaces”

Recent STM work on metal and semiconductor surfaces will be presented. Single magnetic impurities on Cu (111) surfaces and isolated donor and acceptor species in GaAs (110) cleaved crystals have been studied with conventional and cross-sectional scanning tunneling spectroscopy at low temperature. The interaction of band electrons with the embedded impurity atoms leads to characteristic patterns in the surface electron density and fine structure in the LDOS(x,y,E) spectra. Key features of the interacting electron gas, its dispersion relation, focussing effects, static screening properties, and the Kondo resonance are observed and discussed in the context of scanning tunneling experiments.

Ort: Max-Born-Saal
MBI, Max-Born-Str. 2a

Interessenten sind herzlich eingeladen.

Prof. Dr. T. Elsässer