
S E M I N A R
aus
Halbleiterphysik und Nanotechnologie

Do, 10.12.2015, 11:15 Uhr, Hörsaal für Physik

**„Investigating quantum circuits using
scanning-gate techniques“**

Prof. Dr. Thomas Ihn

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The speaker will show how the phase-coherent motion of electrons can be locally investigated at cryogenic temperatures with a scanning-gate microscope. Such experiments visualize otherwise hidden basic quantum transport phenomena by generating spatial conductance maps. On a tutorial level we will look with the eyes of the scanning-gate microscopy technique at electron flow in a high-mobility two-dimensional electron gas, at conductance quantization, the Coulomb-blockade, and the quantum Hall effects.