
S E M I N A R
aus
Halbleiterphysik und Nanotechnologie

Di, 31.01.2017, 11:00 Uhr, Hörsaal für Physik

**“Dynamical diffraction, key to see nanoprecipitates in silicon
and to widen neutron backscattering spectroscopy”**

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Bragg scattering in crystals can be accessed in analogy to electronic band theory and this approach referring to dynamical diffraction gives easy access to the principle of neutron backscattering as well as it provides a framework to make visible oxygen nanoprecipitates in semiconductor silicon. Within this description recent developments in neutron instrumentation as well as a novel possibility to observe nucleation and growth of oxygen precipitates in semiconductor silicon needed for internal gettering of impurities in highly integrated devices will be presented.