



TRR 80 Seminar

Am Dienstag, den 15. Mai um 16:00 Uhr

spricht

Prof. Dr. Paul H. M. Loosdrecht

II. Physikalisches Institut, Universität zu Köln

über das Thema

***Ultrafast Raman Scattering in Complex Matter:
New Views on Non-Equilibrium Dynamics***

Many materials show fascinating physical phenomena when brought out of their normal thermal equilibrium state. For strongly perturbed systems, these phenomena include, among other, transitions into non-thermal states of matter and ultrafast switching of order parameters like magnetization. Closer to equilibrium, non-thermal states can provide a unique insight into the dynamical behavior of the various degrees of freedom (charge, lattice, spin, orbital occupation) in a material, and into the coupling between them. In this colloquium I will introduce a less common technique to study non-equilibrium state: ultrafast Raman scattering. It's potential and unique properties will be discussed by highlighting some recent results, including the observation of a transient Fano resonance in silicon, a study of exciton dynamics in graphene nano-ribbons, and experiments on ultrafast energy and momentum transfer between magnons and phonons in a skyrmionic material.

Gäste sind herzlich willkommen.

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

Gastgeber: Prof. Dr. István Kézsmárki
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