

Mathematisch – Naturwissenschaftliche Fakultät
der Universität zu Köln
- Der Dekan -

Einladung

zu der am Dienstag, den 27. Mai 2014, um 16.45 Uhr
im Hörsaal III der Physikalischen Institute,
Zülpicher Straße 77

stattfindenden öffentlichen

Antrittsvorlesung

von Herrn

Prof. Dr. Paul van Loosdrecht

(II. Physikalisches Institut)

über das Thema

Ultrafast Condensed Matter Science

The fundamental time and length scales in condensed matter are in the femtosecond and nanometer regime. Recent years have shown a stormy development of experimental techniques to address materials precisely at these relevant scales. It is fascinating to see that it has become possible to measure the fundamental interactions determining the properties of condensed matter on their intrinsic time and length scales.

Even more exciting is that these developments opened the possibility to drive systems into novel states using intense short pulses of light; states which are not accessible under normal thermodynamic conditions. Challenging questions and topics which can now be addressed include how and how fast photons are being converted into charges in photovoltaic devices, the ultimate speeds of switching a memory bit, the new physics arising in systems far from thermal equilibrium, and finally the full optical control of states of matter.

A. Büschges
Dekan