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

Einladung

zu der am Montag, den 03. Februar 2014, um 16.00 Uhr
im Exp. Seminarraum 2 der Chemischen Institute,
Greinstraße 6

stattfindenden öffentlichen

Antrittsvorlesung

von Herrn

Prof. Dr. Klas Lindfors

(Institut für Physikalische Chemie)

über das Thema

Light on the nanoscale – optical properties of single nano-objects

With the emergence of the field of nano-optics the study of light has advanced from structures on the microscale to the nanometer range. This has enabled on the one hand studying the optical properties of single nano-objects, such as nanoparticles and molecules, and on the other hand the control of light on the deeply sub-wavelength scale. In my lecture I will present results from our work on using metal nanostructures to probe and to control the flow of light on the nanoscale and to enhance the interaction of light with emitters. I will show that interaction of the metal nanostructures with light depends strongly on the nanoscale details of the structure. Such metal nanostructures, in particular in combination with light-emitting structures and materials, allow engineering and enhancing the optical properties of the constituents to obtain new functionalities. I will briefly outline future perspectives of my research.

K. Schneider
Dekan