

IAP-SEMINAR

EINLADUNG

Termin: **Montag, 31.5.2010 um 14:00 Uhr**
 Ort: **Technische Universität Wien,**
 Freihaus Hörsaal 1, Turm C (rote Leitfarbe), 1.u.2. OG
 1040 Wien, Wiedner Hauptstraße 8-10

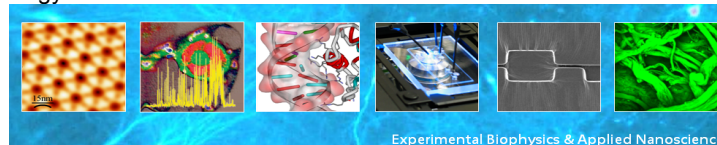
Vortragender: **Prof. Dr. Dario Anselmetti**
 Experimental Biophysics & Applied Nanoscience, Bielefeld University
 Bielefeld Institute for Biophysics and Nanoscience (BINAS)

Thema: **Biophysics at the Nanoscale: Molecular Forces, Dynamics and Biomimetics**

Kurzfassung

The detection and quantitative analysis of single (bio)molecules, smallest analyte quantities and the hunt for low abundant proteins at the single cell level, require new sensitive and efficient techniques. Over the last 15 years, novel biophysical measurement concepts have been conceived with an offspring of ultrasensitive methods that allow to image, measure, analyze, steer, and manipulate individual (bio)molecules and cells by atomic force microscopy / force spectroscopy, optical tweezers, micro- and nanofluidics and single molecule optical microscopy beyond the diffraction limit.

Beyond more fundamental investigations of complex biomolecular reactions, where a quantitative and more detailed insight into the physical mechanism of specific interaction, binding kinetics, and (non-linear) dynamics at the single molecule or single cell level can be achieved, especially, novel concepts with (switchable and bistable) supramolecular host-guest molecules and artificial nanopores will allow fascinating applications and in the fields of biomimetics, synthetic biology and molecular biomedicine.



Experimental Biophysics & Applied Nanoscience

Reference: <http://www.physik.uni-bielefeld.de/biophysik/literatur.html>

*Alle interessierten Kolleginnen und Kollegen sind zu diesem Seminar
im Rahmen des Berufungsverfahrens Biophysik
herzlich eingeladen.*

*H. Störi e.h.
(LVA-Leiter)*