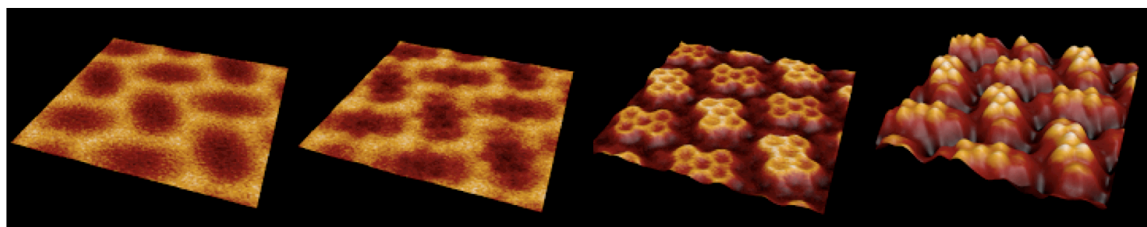


IAP-SEMINAR

ANNOUNCEMENT

- Date:** Tuesday, 3.2.2015
Time: 16:00 p.m.
Location: Technische Universität Wien, Institut für Angewandte Physik, E134
yellow tower „B“, 5th floor, Seminarraum 134A (room number DB05L03)
1040 Wien, Wiedner Hauptstraße 8-10
- Lecturer:** Pavel Jelinek
Institute of Physics of the AS CR, Prague/Czech Republic
- Subject:** **A step further for better understanding of high-resolution AFM/STM images**
- Abstract:** The recent progress in Scanning Probe Microscopy provided unprecedented atomic resolution of single molecules. Furthermore, simultaneous AFM/STM measurements allow precise control of both mechanical and transport properties on single molecular junctions. In the first part of the talk, we will discuss a simple mechanistic model of high-resolution STM/AFM and IETS-STM imaging mechanism of organic molecules with a functionalized probe, which takes into account relaxation of the molecular probe due to tip-sample interaction. We will demonstrate that the model is able to produce very well not only experimentally observed intra and intermolecular contrast but also its evolution upon the tip approach, comparing directly theoretical and experimental AFM/STM images of PTCDA on metal surfaces. Finally, we will provide outlook what else we can learn from high-resolution images.



*All interested colleagues are welcome to this seminar lecture
(45 minutes presentation followed by discussion).*

*U. Diebold e.h.
(Seminar-Chairperson)*

*H. Störi e.h.
(LVA-Leiter)*