



## Seminars

2008

09/01/2008

**ARPES measurements in graphite: role of correlations**

Alexander Grueneis, Leibniz Institute, Dresden, Germany

10/01/2008

**Optical properties of aligned carbon nanotubes**

Thomas Pichler, Leibniz Institute, Dresden, Germany

17/01/2008

**Inelastic Transport through atomic and molecular wires**

Magnus Paulsson, University of Kalmar, Sweden

23/01/2008

**Magnetism from first principles: a multiple scattering approach**

Arthur Ernst, Max Planck Institute of Microstructures, Halle, Germany

24/01/2008

**Density Functional Theory in 2 Dimensions**

Malcolm Stott, Queen's University, Kingston, Canada

28/01/2008

**Ordered and liquid phases in frustrated charge systems**

Karlo Penc, Research Institute for Solid State Physics and Optics, Budapest, Hungary

13/02/2008

**Complex Magnetism in Low Dimensions**

Gustav Bihlmayer, IFF-FZ, Forschungszentrum Jülich, Germany

14/02/2008

**Ultrafast photoemission electron microscopy: imaging light with electrons on femto-nano scale**

Hrvoje Petek, University of Pittsburgh, USA

15/02/2008

**Single adsorbates on simple metal surfaces via the embedding approach**

Mario Trioni, CNR, University of Milano-Bicocca, Italy

2008

22/02/2008

**Molecular chemosensors based on nanostructured metal surfaces: sers (raman), seira (infrared) and sef (fluorescence)**

Concepción Domingo Maroto, Instituto Estructura de la Materia del CSIC, Madrid, Spain

29/02/2008

**Electrical conductance of single atoms and molecules**

Joerg Kroeger, University of Kiel, Germany

17/03/2008

**Dynamical properties of complex systems**

Margarita Krutyeva, Universität Leipzig, Germany

09/04/2008

**Molecular dynamics simulations of polyethylene oxide (PEO) and PEO/PMMA blends**

Martin Brodeck, IFF-FZ, Forschungszentrum Jülich, Germany

17/04/2008

**Electrical conductance through a self-assembled molecular layer**

Philip Hofmann, University of Aarhus Denmark, University of Liverpool, UK

18/04/2008

**Resonant electron heating and molecular phonon cooling in single C60 junctions**

Katharina Franke, Freie Universität Berlin, Germany

15/05/2008

**Recent applications of laboratory small angle X-ray scattering (SAXS) in soft matter, material science and molecular biology**

Jan Skov Pedersen, University of Aarhus, Denmark

23/05/2008

**Infrared spectroscopy of metal nanostructures**

Annemarie Pucci, University of Heidelberg, Germany

26/05/2008

**Elaboration of transparent Polycarbonate nanocomposites**

Virginie Boucher, University of Lille (ENSCL)

26/05/2008

**Energía y sostenibilidad**

Cayetano López Martínez, CIEMAT y Universidad Autónoma de Madrid, Spain

03/06/2008

**Fascinating properties of cuprates**

Adam Kaminski, Iowa State University/Ames Lab, United States

17/06/2008

**Phonon Anomalies in thin lead films on Cu (111)**

Peter Toennies, Max Planck Institut für Dynamik und Selbstorganisation, Göttingen, Germany

18/06/2008

**Photonic structures in the living world**

Jeanpol Vigneron, Facultés Universitaires Notre-Dame de la Paix, Namur, Belgium

20/06/2008

**From single magnetic adatoms to two-dimensional Kondo lattices**

Wolf-Dieter Schneider, Ecole Polytechnique Fédérale de Lausanne, EPFL, Lausanne, Switzerland

23/06/2008

**Optical properties of turbid colloids**

Rubén G. Barrera, Instituto de Física, UNAM, Mexico

27/06/2008

**Local optical field mapping in the intermediate field for sub-wavelength optical microscopy, compact spectrometers and sensors**

Wolfgang Bacsá, CEMES UPR-CNRS, Université Toulouse, France

01/07/2008

**Quasiparticle calculations of the optical and electronic properties of small metal clusters**

Hans Christian Schneider, Technische Universität Kaiserslautern, Germany

08/07/2008

**Energy dissipation in dynamic force microscopy: adhesion hysteresis and capillary interactions**

Juan José Sáenz Gutiérrez, Universidad Autónoma de Madrid, Spain

11/07/2008

**Near field optical microscopy in biology**

Fritz Keilmann, Max Planck Institute for Biochemistry, Martinsried, Germany

17/07/2008

**Atomic motion observed with sub-Angstrom resolution in the electron microscope**

Philip Batson, IBM, New York, United States

18/07/2008

**Surface-enhanced Raman scattering with single molecule sensitivity**

Honxing Xu, Chinese Academy of Sciences, Beijing, China

04/09/2008

**Study of nanoconfined bioprotectant fluids**

Remi Busselez, Université de Rennes, France

01/10/2008

**Growth phenomena in mixed amorphous/crystalline silicon nanosystems**

Luciano Colombo, University of Cagliari and SLACS (INFM-CNR), Italy

29/10/2008

**Does science progress by blind chance or through intelligent design?**

Sheldon Lee Glashow, Boston University, USA

30/10/2008

**DFT-modelling of titania (110) and (011) face**

Gilberto Teobaldi, University of Liverpool, United Kingdom

13/11/2008

**Conductance of alkanedithiol single-molecule junctions: a molecular dynamics study**

Magnus Paulsson, University of Kalmar, Sweden

2008

18/11/2008

**Atomistic simulation of propagating fronts: surface processes and MEMS applications**

Miguel Angel, Gosalvez Ayuso, Helsinki University of Technology/HUT, Finland

20/11/2008

**Charge Transport in Low Dimensional Carbon based Materials -Carbon Nanotubes & Graphene-**

Stephan Roche, Institut de Nanosciences et Cryogenie CEA/INAC, Grenoble, France

18/12/2008

**Hydrogen storage in nanoporous materials**

Julio Alonso Martin, Universidad de Valladolid, Spain

2009

29/01/2009

**An orbital-free ab initio simulation scheme**

Malcolm Stott, Queen's University, Kingston, Canada

04/02/2009

**On the interplay between high-frequency compound properties and tire-road contact mechanics**

Stephan Westermann, Goodyear Technical Center, Luxembourg

12/02/2009

**Grazing incidence diffraction of fast atoms: a new tool to probe electronic density and thermal motion of a crystal surface**

Philippe Roncin, Université Paris Sud, France

26-02-2009

**Electron propagation along Cu nanowires on Cu(111) surface**

Andrey Borissov, Université Paris Sud, France

23/03/2009

**Ferroics, multiferroics and nanoferroics**

Gustavo Catalán Bernabé, University of Cambridge

01/04/2009

**Recent achievements and challenges in the field of superconducting nanostructure**

Sebastián Bergeret, Sbarbaro Universidad Autónoma de Madrid, Spain

02/04/2009

**Diluted magnetic semiconductors: GaAs and InAs doped with Mn**

Sucismita Chutia, Université Paris-Sud, Orsay, France

02/04/2009

**Probing slow molecular motions (1 ms to 1 s time scale) by <sup>13</sup>C solid-state NMR spectroscopy:**

**Application to the subglassy dynamics in poly(ethylenenaphthalene-2,6-dicarboxylate)**

Cedric Lorthioir, Université Paris XII, Thiais, France

03/04/2009

**Spatially modulated electronic structure: Graphene on Ru(0001)**

Amadeo Lopez Vazquez de Parga, Universidad Autónoma de Madrid, Spain

06/04/2009

**Electron dynamics at ice metal interfaces**

Uwe Bovensiepen, Freie Universität Berlin, Germany

15/04/2009

**TU Delft research on materials and environment**

Eduard A.B. Koenders, Technische Universiteit Delft, The Netherlands

16/04/2009

**Chemistry, environment and sustainability**

Luis Oro Giral, Instituto Universitario de Catálisis Homogénea, I.C.M.A.- Facultad de Ciencias

Universidad de Zaragoza-CSIC

20/04/2009

**Dispersion, interfacial strength and nanoclay mobility relationships in polymer nanocomposites**

Javier Carretero González, Instituto Ciencia y Tecnología de Polimeros, CSIC, Madrid, Spain and

The Alan G. MacDiarmid Nanotech Institute, University of Texas at Dallas, Richardson, USA

21/04/2009

**Adsorption and diffusion of atomic and molecular hydrogen on graphene and graphite**

Pedro de Andres Rodriguez, Instituto de Ciencia de Materiales de Madrid, CSIC, Spain

04/05/2009

**Mixed hybridization systems: beyond the C60**

Vincent Huc, Institut de Chimie Moléculaire et des Matériaux d'Orsay, France

27/05/2009

**Spin dynamics of complex metallic magnets**

Pawel Buczek, Max Planck Institute of Microstructures, Halle, Germany

28/05/2009

**Irradiation of clusters and molecules: signals from electrons**

Eric Suraud, Université Paul Sabatier, Toulouse, France

12/06/2009

**Magnetic deflagration and detonation**

Javier Tejada Palacios, University of Barcelona, Spain

16/06/2009

**Molecular interaction, conformation and adsorption: The interplay between substrate and molecule**

Manfred Matena University of Basel, Switzerland

17/06/2009

**Unravelling the mechanism of pressure induced amorphization of phase change materials**

Marco Bernasconi, Università di Milano Bicocca, Italy

19/06/2009

**Electronic properties of materials for solar cells: which ab initio approaches can we trust?**

Silvana Botti, Ecole Polytechnique, Palaiseau, France

2009

2009

24/06/2009

**Quantum confinement and excitonic effects in SiGe nanowires**

Stefano Ossicini, Universidad de Modena and Reggio Emilia, Italy

25/06/2009

**Anomalous Hall effect in ferromagnets as an electronic geometric phase**

Ivo Souza, University of Berkeley, USA

26/06/2009

**Microscopical superfluidity in Helium clusters doped with diatomic molecules**

Gerardo Delgado Barrio, Instituto de Matemáticas y Física Fundamental CSIC, Madrid, Spain

03/07/2009

**Optical antennas for enhanced light matter interactions**

Lukas Novotny, The Institute of Optics, University of Rochester, New York, USA

06/07/2009

**The nano gold rush: gold clusters, complexes and nanostructures**

Ian P. Hamilton, Wilfrid Laurier University, Ontario, Canada

07/07/2009

**Nonadiabatic dynamics of electron scattering from adsorbates in surface bands:**

**Possibility to reveal the lifespan of a quasiparticle in ultrafast experiment**

Branko Gumhalter, University of Zagreb, Croatia

08/07/2009

**Talking with Jean Marie Lehn: informal discussion about a life in science**

Jean Marie Lehn, ISIS-Université Louis Pasteur, Strasbourg, France

09/07/2009

**Vortex Dissipation in Finite Temperature Bose-Einstein Condensates**

Eugene Zaremba, Queen's University, Canada

27/07/2009

**Defective carbon nanotubes: magnetism, spin transport and gas sensing applications**

Zelia Zanolli, Université Catholique de Louvain, Belgium

30/07/2009

**Crystal structure prediction using evolutionary algorithm**

Andriy O. Lyakhov, New York Center for Computational Science,

State University of New York at Stony Brook, USA

07/09/2009

**Molecular probes for surface plasmons**

Joachim Krenn, Karl-Franzens-University Graz, Austria

10/09/2009

**Applications of accelerated molecular dynamics methods in material science**

Blas Pedro Uberuaga, Los Alamos National Laboratory, USA

14/09/2009

**Quantum fluctuations and condensate fraction during the time-of-flight expansion**

Daw-Wei Wang, National Tsing Hua University, Taiwan

14/09/2009

**Self-assembled molecular nanowires: growth, electrical properties and applications**

Yutaka Wakayama, National Institute for Materials Science, Advanced Electronic Materials Center,

Tsukuba, Japan

25/09/2009

**Coherent effects and sensing in plasmonics**

StefanMaier, Imperial College London, United Kingdom

15/10/2009

**Nanocrystal quantum dots: assembly, spectroscopy and applications in photonics**

Yuri Rakovich, Centre for Research on Adaptive Nanostructures and Nanodevices (CRANN)

Trinity College Dublin, Ireland

16/10/2009

**Poynting theorem and the negative refraction index**

Rubén Barrera, Instituto de Física, UNAM, México

20/10/2009

**Activation Strain Model of Chemical Reactivity:**

**Origin of reaction barriers and rational design in chemistry**

MatthiasBickelhaupt, Scheikundig Laboratorium der Vrije Universiteit, Amsterdam, The Netherlands

023/10/2009

**Physical manifestations of surface chirality: structure, surface stress and roughening**

María Blanco Rey, University of Cambridge, United Kingdom

011/11/2009

**100 years of Mie light scattering: a study of drying microdroplets**

Maciej Kolwas, Institute of Physics of the Polish Academy of Sciences, Poland

017/11/2009

**A life in science**

Dudley Herschbach, Texas A&M University, USA

019/11/2009

**An introduction to spintronics, and magnetic dynamics of synthetic Fe/Cr antiferromagnets**

Raúl Villar, Universidad Autónoma de Madrid, Spain

24/11/2009

**Two-dimensional electron gas with spin-orbit disorder**

Eugene Sherman, Ikerbasque UPV/EHU, Bilbao, Spain

01/12/2009

**Vibrational and electronic properties of metal/metal interfaces studied by high-resolution**

**electron energy loss spectroscopy?**

Antonio Politano, Universidad Autónoma de Madrid, Spain

22/12/2009

**When is a free-electron truly free? New insights on the near-threshold photoemission process**

**from the time dependent momentum imaging**

Hrvoje Petek, University of Pittsburgh, USA

2009