



Seminars

2010

- 28/01/2010
Novel high pressure structures from first principles
 Yanming Ma, State Key Lab of Superhard Materials, Jilin University, Changchun, China
- 29/01/2010
Cycloaddition chemistry as a tool for the preparation of valuable molecules and materials
 Fernando Cossio Mora, Facultad de Química, UPV/EHU, San Sebastián, Spain
- 10/02/2010
Tuning molecular electroluminescence from tunnel junctions
 Zhencha Dong, Hefei National Laboratory for Physical Sciences at the Microscale, University of Science and Technology of China, China
- 12/02/2010
Building integrated photovoltaics: technology and applications
 Maider Machado, Fundación Inasmet, Donostia-San Sebastián, Spain
- 15/02/2010
Surface structural studies with MEIS.
 Miguel Angel Muñoz Marques, Instituto Ciencia de Materiales de Sevilla, Spain
- 02/03/2010
Coexistence of ferromagnetism and superconductivity
 Alexander Buzdin, Université Bordeaux I, France
- 04/03/2010
Quantum Rotational Motion in mesoscopic systems
 Javier Tejada Palacios, Universidad de Barcelona, Spain
- 25/03/2010
QM/MM studies on Cu(I) sites in zeolites and their interactions with small molecules
 Pawel Rejmak, Institute of Catalysis and Surface Chemistry of Polish Academy of Science, Poland
- 26/03/2010
Electron cooling by diffusive normal metal - superconductor tunnel junctions
 Andrey Vasenko, LPMCC, Université Joseph Fourier and CNRS, Grenoble, France

09/04/2010

Switchable molecules on metallic surfaces

Marten Plantek, Freie Universitaet Berlin, Germany

12/04/2010

Quantum chemical study of lanthanide and actinide impurities in ionic crystals

Fernando Ruy Pérez Cillán, Stockholm University, AlbaNova University Centre, Stockholm, Sweden

16/04/2010

Quantum transport in nanostructures in presence of strong external perturbations: role of high magnetic fields and electron-phonon interactions

Remi Avriller, Facultad de Ciencias, Universidad Autónoma de Madrid, Spain, CEA Grenoble and Université Joseph Fourier, France

23/04/2010

Quantum molecular dynamics to model surface phonon polaritons nanoparticles resonances in the THz regime

Jean Jaques Greffet, Institut d'Optique Graduate School, Institut Universitaire de France, Palaiseau, France

30/04/2010

Quantum Technologies with Circuit QED

Enrique Solano Villanueva, Facultad de Ciencia y Tecnología, UPV/EHU, Spain

07/05/2010

Self-assembly and reactivity on the graphene/Ru[0001] surface

Daniele Stradi, Universidad Autónoma de Madrid, Spain

14/05/2010

Dynamics effects in superconducting/magnetic nanostructures

José Luis Vicent López, Universidad Complutense de Madrid, Spain

17/05/2010

Electronic structure of graphene from photoemission

Aaron Bostwick, Advanced Light Source, Lawrence Berkeley National Laboratory, USA

20/05/2010

The optimized potential model for atoms and molecules

James D. Talman, University of Western Ontario, London, Canada

27/05/2010

Elastic properties of graphene and carbon nanoribbons: a combined continuum and atomistic approach

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

08/06/2010

Phase-charge duality in Josephson junction circuits: Role of inertia and effect of microwave irradiation

Frank Hekking, Laboratoire de Physique et de Modélisation des Milieux Condensés, Université Joseph Fourier and CNRS, Grenoble, France

09/06/2010

Rashba spin-orbit coupling at surfaces

Jürgen Henk, Max Planck Institute of Microstructure Physics, Halle, Germany

16/06/2010

Multifunctional materials design for catalysis

Avelino Corma Canós, Instituto de Tecnología Química, UPV-CSIC, Universidad Politécnica de Valencia, Spain

18/06/2010

Interaction induced edge channel equilibration

Anders Mathias Lunde, ICMM, CSIC, Madrid, Spain

22/06/2010

Surface science spectroscopy

Mario Rocca Agostino, Università degli Studi di Genova, Italy

23/06/2010

Magnetic properties of iron pnictides from spin-spiral calculations

Alexander Yaresko, Max-Planck-Institut für Festkörperforschung, Germany

25/06/2010

Novel approaches to study molecule/surface reactions

Cristina Diaz Blanco, Universidad Autónoma de Madrid, Spain

09/06/2010

Ab initio simulation of solar cells materials

Lin-Wang Wang, Lawrence Berkeley National Laboratory, California, USA

05/07/2010

Why density functional theory works and how to improve it

Kiron Burke, University of California, Irvine, USA

14/07/2010

Phonons in mixed semiconductors

Andrei Postnikov, Paul Verlaine Université-Metz, France

19/07/2010

Electrochemical deposition of metallic films and nanoparticles on thin oxides and metallic surfaces

Mau-scheng Zei, National Central University, Taiwan

28/07/2010

Competing broken symmetries due to magnetism and unconventional superconductivity in hybrid structures

Mario Cuoco, CNR-SPIN "E.R. Caianiello", Università di Salerno, Italy

19/08/2010

The timely and the unexpected; spin resolved ARPES on systems with strong spin-orbit interaction

Hugo Dil, Universität Zürich, Switzerland

31/08/2010

New insights into student understanding of electric circuits and analog electronics

Stetzer MacKenzie, University of Washington, USA

06/09/2010

Photoemission study of rare gas nano-bubbles in Al(111): core-levels and plasmon excitation

Rajendra Singh Dhaka, Max-Planck-Institut für Mikrostrukturphysik, Halle, Germany

10/09/2010

Metals in graphene

Akira Ishii, Tottori University Koyama, Japan

17/09/2010

Surface defects: from mechanical properties to the origin of life

Juan Rojo, Universidad Complutense de Madrid, Spain

2010

23/09/2010

Modern approaches to time-resolved single molecule microscopy
Steffen Ruettinger, PicoQuant GmbH, Berlin, Germany

08/10/2010

Novel phenomena at high pressure
Artem R. Oganov, Stony Brook University, New York, USA

18/10/2010

Strongly emitting colloidal nanocrystals and their assemblies
Nikolai Gaponik, Technical University Dresden, Germany

21/10/2010

Euler buckling instability and enhanced current blockade in suspended single-electron transistors
Fabio Pistolesi, Université Bordeaux/CNRS, Talence, France

22/10/2010

Water-solid interfaces at ambient conditions
Jordi Fraxedas Calduch, Centre d' Investigació en Nanociència i Nanotecnologia CIN2(CSIC-ICN), Barcelona, Spain

29/10/2010

At the nexus of physics and physiology
Peter Apell, Chalmers University of Technology, Goteborg, Sweden

03/11/2010

Magnetism in functionalised nanoparticles
Antonio Hernando Grande, Instituto de Magnetismo Aplicado, UCM-CSIC-ADIF, Madrid, Spain

18/11/2010

Plasmonics: integrated devices and cavities for biosensing applications
Pol Van Dorpe, IMEC, Leuven, Belgium

19/11/2010

Collective phenomena in semiconductor microcavities
Ivan Shelykh, University of Iceland, Iceland

02/12/2010

Cellular automata and GPU computations
Néstor Ferrando Jódar, Universidad Politécnica de Valencia, Spain

09/12/2010

Self-assembly and electronic properties of macromolecular systems: ordered ultrathin porphyrin layers vs hierarchically assembled eumelanin thin films
Patrizia Borghetti, Università Cattolica del Sacro Cuore, Brescia, Italy

Seminars

2011

14/01/2011

Quantum escape processes for driven systems
Alvise Verso, Ulm University, Germany

25/01/2011

Attosecond electron dynamics in solids
Ralph Ernstorfer, Fritz-Haber-Institut der Max-Planck-Gesellschaft, Germany

04/02/2011

Dynamics of DNA and DNA-Hydration water on the picosecond time-scale
Guido Goracci, University of Perugia, Italy

18/02/2011

Orbital magnetoelectric effect in insulators
Ivo Souza, University of California, Berkeley, USA

24/02/2011

Helium spin echo spectroscopy as a technique for surface dynamical studies: results and interpretation
John Ellis, Cavendish Laboratory, University of Cambridge, United Kingdom

24/02/2011

Influence of macromolecular crowding on protein stability
Clémence Le Coeur, Laboratoire de Physique des Solides, Paris, France

03/03/2011

Using synchrotron radiation to shed light on solar cells
Franz J. Himpsel, University of Wisconsin Madison, United States

04/03/2011

Ultrafast charge transfer at graphene surfaces
Dietrich Menzel, Technische Universität München and Fritz-Haber-Institut der Max-Planck-Gesellschaft, Germany

2011

11/03/2011

Nearfield optical plasmonics: from single and coupled particles to extended metamaterials
 Ralph Vogelgesang, Max-Planck-Institut für Festkörperforschung, Germany

18/03/2011

Structural and chemical effects of charge-transfer across metal-organic interfaces
 Roberto Otero Martín, Universidad de Autónoma de Madrid, Spain

23/03/2011

Optics of Graphene
 Alexey Kuzmenko, Université de Genève, Switzerland

23/03/2011

The methodology of research in physics education used in the university of Udine
 Marisa Michelini, University of Udine, Italy

31/03/2011

Nanocrystals: past, present and future
 Alexander Eychmüller, Technical University of Dresden, Germany

01/04/2011

Fast ion diffraction on crystal surfaces
 Maria Silvia Gravielle, Instituto de Astronomía y Física del Espacio, Universidad de Buenos Aires, Argentina

05/04/2011

New approach to studying the interaction between charged particles and its impact on science
 Elena Bichoutskaia, School of Chemistry, University of Nottingham, United Kingdom

08/04/2011

Adsorption, cyclo-dehydrogenation and graphene formation from molecular precursors on single-crystal surfaces
 José Angel Martín Gago, Instituto de Ciencia de Materiales de Madrid, Spain

15/04/2011

Electron transport through carbon nanostructures
 Martti Puska, Aalto University School of Science and Technology, Finland

15/04/2011

One-dimensional structural irregularities in graphene – chiral edges and grain boundaries
 Oleg Yazyev, University of California, Berkeley, USA

28/04/2011

Magnetic state and anisotropies in iron based superconductors
 María José Calderón Prieto, Instituto de Ciencia de Materiales de Madrid CSIC, Spain

04/05/2011

Radical interactions at surfaces
 Aart W. Kleijn, HIMS, University of Amsterdam, The Netherlands

05/5/2011

Electromagnon excitations in multiferroics
 Rogério de Sousa, University of Victoria, B.C., Canada

09/05/2011

Nonorthogonal Wannier function optimisation: geometric aspects and linear-scaling applications to strongly-correlated materials and spectroscopy
 David O'Regan, University of Cambridge, United Kingdom

13/05/2011

On life and its origins: when boundary conditions become more important than laws
 Kepa Ruiz-Mirazo, UPV/EHU (CSIC-UPV/EHU), Donostia-San Sebastián, Spain

17/05/2011

Divulgación Avanzada”, incluyendo la emisión del documental “Universo Extremo”
 José Ignacio Latorre, Universitat de Barcelona, Spain

27/05/2011

Nanostructured semiconductors: low cost deposition techniques and integration in solar cells
 Ramón Tena-Zaera, New Materials Department, CIDETEC, Donostia-San Sebastián, Spain

08/06/2011

Atomic-scale control of molecular contacts
 Guillaume Schull, CNRS – Institut de Physique et Chimie des Matériaux de Strasbourg, France

14/06/2011

A common denominator in catalysis, photovoltaic and electronic applications: the role of interfaces
 Carla Castellari Cudia, Sincrotrone Elettra de Trieste, Italy

11/07/2011

Morphology control and application aspects of gold nanoparticles
 Andrey Rogach, Hong Kong University, China

12/07/2011

Dynamics of electronic states at the surface of bismuth
 Luca Perfetti, École Polytechnique, France

13/07/2011

Magnetism of noble metal nanoparticles: a XAS and XMCD study
 Fernando Bartolomé, Instituto de Ciencia de Materiales de Aragón, (CSIC)-Universidad de Zaragoza, Spain

21/07/2011

Basic principles of accelerator physics: ESS-Bilbao light ion linear accelerator
 Aritz Leonardo, ESS Bilbao, Spain

26/07/2011

Strategies to improve the limit of detection in nanoplasmonic label free biosensing
 Borja Sepulveda Martínez, Centro de Investigación en Nanociencia y Nanotecnología CIN2 CSIC-ICB, Barcelona, Spain

01/08/2011

New challenges and opportunities in nanoplasmonics: from transformation optics cavity design to applications in biosensing and solar light harvesting
 Stefan Maier, Imperial College London, United Kingdom

2011

2011

04/08/2011

Quantum and semiclassical description of surface plasmons: electronic damping and screening
Shiwu Gao, University of Gothenburg, Sweden

08/09/2011

Electronic and magnetic properties of transition metal phthalocyanines
Roberto Robles Rodríguez, CIN2: Centre d'Investigació en Nanociència i Nanotecnologia (CSIC-ICN)
Universitat Autònoma de Barcelona, Spain

13/09/2011

Electronic Structure of Graphene: Simple but Complex
Andrew Walter, Lawrence Berkeley National Laboratory, United States and
Fritz-Haber-Institut der Max-Planck-Gesellschaft, Germany

19/09/2011

Chemical Reactivity and Density Functional Theory
Francisco Méndez Ruiz, Universidad Autónoma Metropolitana, Mexico

20/09/2011

Adsorbate quantum dynamics at surfaces treated by system-bath methods
Peter Saalfrank, Institut für Chemie, Universität Potsdam, Germany

29/09/2011

DFT characterization of solid surfaces and interfaces: from metallic and semiconducting to H adsorption on silicates
Sandra García Gil, Université Paris Sud, France

03/10/2011

Interaction and interference in molecular electronics: a density matrix approach
Andrea Donarini, Institute of Theoretical Physics, University of Regensburg, Germany

05/10/2011

Auger angular distribution effects induced by heavy ions
Gregor Schiwietz, Helmholtz Zentrum, Berlin, Germany

05/10/2011

Image-potential states on graphene layers
Thomas Fauster, Universität Erlangen-Nürnberg, Erlangen, Germany

05/10/2011

Speed of light vs speed of neutrinos
José Ignacio Latorre, Universitat de Barcelona, Spain

06/10/2011

Semiconductor nanoparticles: their synthesis and attachment to substrates for optoelectronic characterisation
Stephen G. Hickey, Technische Universität Dresden, Institut für Physikalische Chemie und Elektrochemie, Germany

17/10/2011

Reconstruction of the (001) Al₂Cu surface + Adsorption of EP-PTCDI molecules on Si(111) 7x7 and Ag(111)
Laura Serkovic Loli, Université de Nancy, France

20/10/2011

Electronic properties of polymers for photovoltaic applications
Michel Côté, Université de Montréal, Canada

21/11/2011

Fano resonances and quantum effects in plasmonics
Peter Nordlander, Rice University, Texas, USA

22/11/2011

Strain effect on electronic and structural properties of metal nanoislands grown on reconstructed Au(111)
Guido Fratesi, Università di Milano-Bicocca, Italy

28/11/2011

Reading the Human Genome: the reconstruction of the Past
Sydney Brenner, Janelia Farm Campus, Howard Hughes Medical Institute USA

15/12/2011

Optics, self assembly, and evolution of nanostructural colors in birds and insects
Richard O. Prum, Yale University, Peabody Museum of Natural History, Connecticut, USA