



## Experience

## Motion



## Visiting Researchers

### Long Visits 2006

Doctorand Carlos Etxeberria Arrondo  
Universidad Pública de Navarra, Spain  
01/10–31/12/2006  
Quantum dots based on magnetic semiconductors.

Dr. Andrew F. Ho  
University of Birmingham, United Kingdom  
01/02–28/02/2006  
Effects of disorder in one-dimensional quantum liquids, and phase diagram of binary mixtures of one-dimensional harmonic fluids.

Prof. Wolfgang Schattke  
Christian-Albrechts-Universität zu Kiel, Germany  
07/02–06/05/2006  
Variational Quantum Montecarlo calculations of the electronic properties of solids and surfaces. Theory of Photoemission in semiconductors and metals.

Prof. Victor Tugushev  
Russian Research Center, Kurchatov Institute, Moscow, Russia  
28/03–26/05/2006  
Magnetism in superlattices and spintronics.

Prof. Norman March  
Universiteit Antwerpen, Belgium  
12/04–03/06/2006  
Study of the role of exchange and correlation effects in both ground state density functional theory as well for excitation within time-dependent density-functional theory.

Dr. Yuri Koroteev  
Tomsk State University, Russia  
27/04–27/07/2006  
First principles calculations of electronic structure and quasiparticle lifetimes in metals.

Dr. Claudio Horowitz  
Centro Atómico Bariloche, Argentina  
03/05–30/06/2006  
Optimized effective-potential approach to the Kohn-Sham exchange-correlation potential of density-functional theory.

Dr. Jin Zhao  
University of Pittsburgh, Pennsylvania, USA  
31/05–30/06/2006  
Electronic properties of alkalis on the surface of noble metals.

**Dr. Andrey Borissov**  
 Université Paris-Sud 11, France  
 01-30/06, 01/11-02/12/2006  
 Time-dependent density functional theory and wave packet propagation methods.

**Prof. Julio Alonso**  
 Universidad de Valladolid, Spain  
 16/06-30/09/2006  
 Computational simulation of the intercalation of alkaline atoms in graphite and carbon nanotubes. Laser induced fragmentation of atomic clusters.

**Dr. Lucian Constantin**  
 Tulane University, Louisiana, USA  
 01/07-30/09/2006  
 Many-body exchange-correlation effects at metal surfaces.

**Dr. Vladimir Menshov**  
 Russian Research Center, Kurchatov Institute, Moscow, Russia  
 02/10-30/11/2006  
 Confling mechanisms in digital alloys.

**Prof. Martti Puska**  
 Helsinki University of Technology, Finland  
 03/10-31/03/2006  
 Lifetimes of electron-hole excitations at nanostructures on solid surfaces.

**Prof. Jacques Lucas**  
 Université de Rennes, France  
 16/11-16/12/2006  
 New infrared glasses for photonic application.

## Long Visits 2007

**Prof. Istvan Nagy**  
 Technical University of Budapest, Hungary  
 08/01-08/02, 02-31/05/2007  
 Various aspects of correlations in extended fermionic systems; spice-fluctuation, pair-correlation, one-particle damping, impurity-screening.

**Dr. Galina Rusina**  
 Russian Academy of Sciences, Tomsk, Russia  
 24/01-22/03/2007  
 Surface phonons in CuPd surface alloys.

**Dr. Andrey Borissov**  
 Université Paris Sud, France  
 01/03-30/04/2007  
 Time-dependent density functional theory and wave packet propagation methods.

**Dr. Yuri Koroteev**  
 Tomsk State University, Russia  
 20/03-18/06/2007  
 First principles calculations of electronic structure and quasiparticle lifetimes in metals.

**Prof. Wolfgang Schattke**  
 Universität Kiel, Germany  
 26/03-14/05, 15/10-15/12/2007  
 Variational Quantum Montecarlo calculations of the electronic properties of solids and surfaces. Theory of Photoemission in semiconductors and metals.

**Doctorand Nicolas Large**  
 Université Paul Sabatier, Toulouse, France  
 15/04-15/05/2007  
 Raman spectroscopy in low dimensional semiconductor structures.

**Prof. Norman March**  
 Universiteit Antwerpen, Belgium  
 17/04-09/06/2007  
 Study of the role of exchange and correlation effects in both ground state density functional theory as well for excitation within time-dependent density-functional theory.

**Dr. Cristina Díaz Blanco**  
 Leiden University, The Netherlands  
 21/05-22/06/2007  
 Surface dynamics.

**Prof. Sergey Eremeev**

Institute of Strength Physics and Materials Sciences, Tomsk, Russia

25/05–22/07/2007

Phonons and electron-phonon coupling in quantum-well states of adlayers on metals.

**Prof. Svetlana Borisova**

Russian Academy of Sciences, Tomsk, Russia

22/05–22/07/2007

Phonones in metal adlayers.

**Prof. Julio Alonso Martin**

Universidad de Valladolid, Spain

19/06–31/08/2007

Computational simulation of the intercalation of alkaline atoms in graphite and carbon nanotubes. Laser induced fragmentation of atomic clusters.

**Dr. Ilya Nechaev**

Kostroma State University, Russia

20/06–16/09/2007

Electron excitations in ferromagnetic materials.

**Prof. Vladimir Menshov**

Russian Research Center, Kurchatov Institute, Moscow, Russia

02/07–29/09/2007

Confling mechanisms in digital alloys.

**Prof. Hrvoje Petek**

University of Pittsburgh, Pennsylvania, USA

22/07/–31/10/2007

Electron dynamics in time domain.

**Prof. Viktor Tugushev**

Russian Research Center, Kurchatov Institute, Moscow, Russia

02/08–26/10/2007

Magnetism in superlattices and spintronics.

**Prof. Włodzimierz Jaskólski**

Institute of Physics, Nicholas Copernicus University, Poland

13/08–23/09/2007

Study of quantum dot arrays and nanotube superlattices.

**Prof. Andrey Kazanskiy**

University of San Petersburg, Russia

20/09–10/12/2007

Electron dynamics at adsorbates on metals.

**Prof. Giorgio Benedek**

Università degli Studi di Milano, Italy

01/10–31/10/2007

Surface phonons and phase transitions.

**Prof. Amand Lucas**

FUNDP, Namur, Belgium

01–31/10/2007

Condensed matter physics, surface sciences, electronic and atomic structures of reduced dimensionality systems. structural biology.

**Prof. Max Roesler**

Hahn-Meitner Institut, Berlin, Germany

01/10–30/11/2007

Electron emission induced by atomic particles interacting with solids and surfaces.

**Dr. Igor Shein**

Russian Academy of Sciences (Ural Branch), Yekaterinburg, Russia

02/11–28/12/2007

The band structure approach to activation barriers in metal oxides.

## Short Visits 2006

### Cecile Corriol

University of Liverpool, United Kingdom

02–04/01/2006

Using first-principle calculations applied to STM image simulations, we want to understand the influence of the tunneling resistance and of the coverage on the aspect of the simulated and experimental images for adsorbate-covered systems as O/Ru(0001). In doing so, we try to unravel the intricate interplay between electronic effects and surface geometry. The inclusion of forces between sample atoms and tip atoms is also an objective of our work. Finally, we are involved in tunneling spectra calculations.

### Prof. Istvan Nagy

Technical University of Budapest, Hungary

09/01–04/02, 10/05–09/06, 21/08–20/09/2006

Various aspects of correlations in extended fermionic systems; spin-fluctuation, pair-correlation, one-particle damping, impurity-screening.

### Prof. Michael Rohlfing

International University Bremen, Germany

10–13/01/2006

Dynamics of excited electron states.

### Dr. Javier García de Abajo

Centro de Física de Materiales-CSIC, Spain

12–13/01, 06–07/02, 15–16/02, 22–23/02, 01–02/03, 14–15/03, 08–09/08, 18–19/09/2006

Simulation of optical properties of complex structures including porous metals and non-spherical nanoparticles. Study of the response of nanostructures and its interaction with fast electron. Simulation of electron-energy loss spectroscopy, cathodoluminescence, and Cherenkov radiation in complex systems.

### Dr. Jorge Iribas Cerdá

Instituto de Ciencia de Materiales de Madrid-CSIC, Spain

03/02, 24–28/07/2006

STM studies of water on Pd(111) and Ru(0001).

### Dr. Romain Quidant

Institut de Ciències Fotòniques, Spain

06/02/2006

Nanophotonics of patterned systems.

### Prof. Gonçal Badenes Guia

Institut de Ciències Fotòniques, Spain

06/02/2006

Nanophotonics of patterned systems.

### Dr. Yamila García

Universidad de Alicante, Spain

08–12/02/2006

Theory of electronic transport through molecular junctions.

### Dr. Viktor Myroshnychenko

Charles University in Prague, Czech Republic

14–17/02/2006

Plasmons and collective excitations in complex electronic systems.

### Prof. Miguel Ortuño Ortín

Universidad de Murcia, Spain

16–17/02/2006

Relaxation phenomena in interacting systems.

### Prof. Olov Sterner

Lund University, Sweden

23–26/02/2006

Study of natural compounds with surfactant properties, that transmit biological signals along ultrathin water films on the surface of fungal cells.

### Prof. Pedro Zeijlmans van Emmichoven

Universiteit Utrecht, The Netherlands

23–27/02/2006

Magnetic dipolar interactions in two-dimensional magnetite nanoparticle arrays.

### Prof. Peter Lawrence

MRC Laboratory of Molecular Biology, Cambridge, United Kingdom

27–28/02/2006

Why we do science — a personal history.

### Prof. Gines Morata Perez

Universidad Autónoma de Madrid, Spain

27–28/02/2006

The three revolutions in Biology.

### Dr. Alexey Lyulin

Eindhoven University of Technology, The Netherlands

28/02–03/03/2006

Computer simulation studies (molecular and Brownian dynamics, Monte Carlo) of polymers.

### Prof. Sir John Pendry

Imperial College London, United Kingdom

01–03/03/2006

The perfect lens — focusing beyond the diffraction limit.

**Prof. Richard M. Martin**  
University of Illinois at Urbana-Champaign, USA  
05–08/03/2006  
Methodology for electronic structure calculations.

**Dr. Reveka Sainidou**  
University of Athens, Greece  
16–15/03/2006  
Ordered and disordered phononic structures: the layer-multiple-scattering method and applications.

**Prof. Agustin del Moral Gamiz**  
Universidad de Zaragoza, Spain  
18–20/03/2006  
Magnetostriction and magnetism in strongly correlated systems.

**Dr. Leonhard Grill**  
Freie Universität Berlin, Germany  
24/03/2006  
Contacting single molecules with the STM: model systems for molecular electronics.

**Prof. Vladimir Nazarov**  
Chonnam National University, Kwangju, Korea  
03–29/04/2006  
Time-dependent density-functional theory of particle-solid interactions.

**Dr. Nicolas Lorente**  
Université Paul-Sabatier, Toulouse, France  
03–29/04/2006  
Inelastic electron tunneling spectroscopy.

**Dr. Marie Laure Bocquet**  
Laboratoire de chimie, École normale supérieure de Lyon, France  
05–09/04/2006  
Inelastic Electron Tunneling Spectroscopy from First-Principles.

**Dr. Martina Corso**  
Universität Zürich, Switzerland  
05–09/04, 12–16/12/2006  
Boron nitride nanomesh: a peculiar self-assembled nanostructure.

**Prof. José Luis Vicent López**  
Universidad Complutense de Madrid, Spain  
06–07/04/2006  
Vortex dynamics in nanostructured superconductors: Ratchet effect and biological motors.

**Prof. Julio Alonso**  
Universidad de Valladolid, Spain  
07–16/04/2006  
Computational simulation of the intercalation of alkaline atoms in graphite and carbon nanotubes. Laser induced fragmentation of atomic clusters.

**Dr. Gilberto Teobaldi**  
University of Liverpool, United Kingdom  
23–27/04, 29/11–03/12/2006  
Single-molecule vibrational spectroscopy on metal-oxides.

**Prof. Neil William Ashcroft**  
Cornell University, New York, USA  
30/04–27/05/2006  
Theory of many particle systems, density functional, theory (classical and quantum), and theory of dense hydrogen and matter under extreme conditions.

**Dr. Rolf Heid**  
Forschungszentrum Karlsruhe, Germany  
02–05/05/2006  
Lattice dynamics of adsorbate-covered surfaces from first principles.

**Dr. Roman Fasel**  
EMPA, Dübendorf, Switzerland  
10–12/05/2006  
Amplification of chirality in two-dimensional enantiomorphous lattices.

**Dr. Pascal Ruffieux**  
EMPA, Thun, Switzerland  
10–12/05/2006  
Surface state scattering from adsorbed molecules.

**Prof. Uzi Landman**  
Georgia Institute of Technology, USA  
14–15/05/2006  
Small is different: physics and chemistry at the nanoscale.

**Prof. Marijan Sunjic**  
University of Zagreb, Croatia  
21–27/05/2006  
Dynamical response and surface excitations in thin films.

**Prof. Harald Brune**  
École Polytechnique Fédérale de Lausanne (EPFL), Switzerland  
23–28/05/2006  
Giant magnetic anisotropy and tunnel-magneto-resistance of nanostructures at surfaces.

**Prof. Victor Hugo Ponce**  
 Centro Atómico Bariloche, Argentina  
 01–28/06/2006  
 Electron emission in the interaction of light ions with surfaces.

**Dr. Peter Johansson**  
 University of Örebro, Sweden  
 07/06–05/07, 10–17/12/2006  
 Research on the electromagnetic and quantum mechanical response of molecules and nanoparticles in different configurations of experimental interest (STM, Raman, ...).

**Dr. Daniel Rolles**  
 Lawrence Berkeley National Laboratory, California, USA  
 08–10/06/2006  
 Photoelectron diffraction in rare-gas clusters.

**Prof. Hrvoje Petek**  
 University of Pittsburgh, Pennsylvania, USA  
 10–16/06/2006  
 Electron dynamics in time domain.

**Dr. Claudia Mondelli**  
 Institut Laue-Langevin, Grenoble, France  
 15–18/06/2006  
 Neutrons for material science.

**Dr. Miguel Angel Gonzalez Gonzalez**  
 Institut Laue-Langevin, Grenoble, France and Universidad de Zaragoza, Spain  
 15–18/06/2006  
 Structure and dynamics of vitreous B<sub>2</sub>O<sub>3</sub> and alkali borates: neutron scattering and computer simulations.

**Prof. John Inglesfield**  
 University of Wales Cardiff, United Kingdom  
 18–21/06, 28/09–12/10/2006  
 Embedding in photonics and plasmon bands in metallic nanostructures.

**Dr. Riccardo Rurali**  
 Universitat Autònoma de Barcelona, Spain  
 22–23/06/2006  
 Scattering properties of dopants in silicon nanowires from first-principles.

**Prof. Roderic Quirk**  
 The University of Akron, Ohio, USA  
 24/06–09/07/2006  
 Synthesis of functional polymers.

**Dr. Ernest Mendoza Gómez**  
 Institut Català de Nanotecnologia, Barcelona, Spain  
 26/06/2006  
 Carbon Nanotubes as platforms for the design of sensors.

**Prof. Giorgio Benedek**  
 Università degli Studi di Milano, Italy  
 30/06–06/07/2006  
 Surface phonons and phase transitions.

**Prof. Bo Hellsing**  
 Chalmers and Göteborg University, Sweden  
 01–30/07/2006  
 Electron-phonon interactions on metal surfaces.

**Dr. Rainer Hillenbrand**  
 Max-Planck-Institut, Martinsried, Germany  
 02–05/07, 30/09–03/10/2006  
 Scattering-type near-field microscopy for optical/infrared nanoanalytics.

**Dr. Nengping Wang**  
 Universität Hamburg, Germany  
 05–08/07/2006  
 Electromigration forces on ions in carbon nanotube transistors.

**Prof. Rodolfo Del Sole**  
 Università degli Studi di Roma 2, Italy  
 09–16/07/2006  
 Optical properties of nanostructures and surfaces.

**Prof. Joan Bausells Roige**  
 Centre Nacional de Microelectrònica-CSIC, Barcelona, Spain  
 13–15/07/2006  
 Nanoelectromechanical structures: principles and applications in signal processing and molecular sensing.

**Doctorand Miguel Isla García**  
 Universidad de Valladolid, Spain  
 13–14/07/2006  
 Theoretical simulations of the electronic excitations in nanoclusters.

**Prof. José A. Maíz Aguinaga**  
 Intel Corporation, USA  
 14/07/2006  
 Scaling in future semiconductor devices: challenges and opportunities at the intersection with nanotechnology.

**Prof. Emilio Artacho Cortés**

University of Cambridge, United Kingdom

15/07–15/08/2006

Electronic stopping power in insulators. LDA+U, SIC, exact-exchange in DFT calculations.

**Doctorand Martin Brodeck**

IFF-FZ, Forschungszentrum Jülich, Germany

17–21/07/2006

Molecular dynamics simulations and neutron scattering measurements of the strongly decoupled dynamics which are exhibited by the different components of polyethyleneoxide/polymethylmetacrylate blends.

**Prof. Mario Trioni**

Consiglio Nazionale delle Ricerche, Italy

26–29/07/2006

Electronic and magnetic properties of thin solid film on metals.

**Prof. Oleg Pankratov**

Universität Erlangen-Nürnberg, Germany

26–29/07/2006

Excitons in Time Dependent Density Functional Theory.

**Prof. David Drabold**

Ohio University, USA

03–05/08/2006

Topics in the theory of amorphous materials

**Prof. Włodzimierz Jaskólski**

Institute of Physics, Nicholas Copernicus University, Poland

02–30/09/2006

Study of quantum dot arrays and nanotube superlattices.

**Doctorand Paraskevi Driva**

University of Athens, Greece

05–30/09/2006

Dendritic PLs

**Doctorand Spiros Christodoulou**

University of Athens, Greece

05–15/09/2006

Multiblock Multicomponent Copolymers.

**Dr. Thomas Frederiksen**

Danmarks Tekniske Universitet, Denmark

11–13/09/2006

First-principles modeling of elastic and inelastic transport in nanoscale junctions.

**Prof. Archie Howie**

Cavendish Laboratory, University of Cambridge, United Kingdom

14–28/09/2006

Theory of valence electron excitations by fast electrons.

**Dr. Leonor Chico Gómez**

Facultad Ciencias del Medio Ambiente, Toledo, Spain

16–21/09, 18–22/12/2006

Electronic structure calculations in nanotubes.

**Dr. Garnett Bryant**

National Institute of Standards and Technology, Gaithersburg, USA

16–24/09/2006

Optoelectronic properties of quantum dots and quantum wires.

**Dr. Maria Silvia Gravielle**

Instituto de Astronomía y Física del Espacio, Universidad de Buenos Aires, Argentina

25–30/09/2006

Atomic collisions and collisions with solids and surfaces.

**Prof. Dieter Richter**

IFF-FZ, Forschungszentrum Jülich, Germany

30/09–8/10/2006

Polymer dynamics by neutron techniques.

**Dr. Uwe Bovensiepen**

Freie Universität Berlin, Germany

08–12/10/2006

Ultrafast electron dynamics at interfaces beyond the equilibrium band structure.

**Dr. Alberto Verdaguer Prats**

Institut Català de Nanotecnologia, Spain

14–17/10/2006

Study of ion segregation at the NaCl/Water surface by scanning probe microscopy and X-ray spectroscopy. Implications for air pollution at coastal areas.

**Prof. Friedrich Kremer**

Universitaet Leipzig, Germany

02/11–02/12/2006

Broadband dielectric spectroscopy of polymers.

**Prof. Slodoban Bosanac**

Rudjer Boskovic Institute, Zagreb, Croatia

22–26/11/2006

Limits in cognition.

Dr. Fernando Langa de la Puente  
 Universidad de Castilla la Mancha, Toledo, Spain  
 23–24/11/2006  
 New methods of functionalization of single-wall carbon nanotubes.

Prof. Philippe Tordjeman  
 Université Montpellier 2, France  
 29/11–01/12/2006  
 Scaling effects of tribological properties of silicate materials.

Prof. Carmen Ocal García  
 Instituto de Ciencia de Materiales de Barcelona-CSIC, Spain  
 15/12/2006  
 Molecular structure and electronic transport through monolayer molecular junctions.

Prof. Dimas García de Oteyza  
 Max-Planck-Institut, Stuttgart, Germany  
 19–21/12/2006  
 Organic semiconductors in model systems for plastic electronic devices.

## Short Visits 2007

Prof. Peter Dederichs  
 IFF-FZ, Forschungszentrum Jülich, Germany  
 10–12/01/2007  
 Exchange interactions and Curie temperatures in dilute magnetic semiconductors.

Prof. Roderic Quirk  
 The University of Akron, Ohio, USA  
 13–20/01, 14–21-07-2007  
 Synthesis of functional polymers.

Dr. Victor Guallar Tasies  
 BSC, Barcelona Supercomputing Center, Barcelona, Spain  
 21–22/01/2007  
 QM/MM methods: an electronic and atomic view of Nature.

Dr. Stefano Mossa  
 ESRF, Grenoble, France  
 22–28/01/2007  
 Energy landscape of supercooled liquids.

Prof. Heinrich Rohrer  
 IBM Zurich, Switzerland  
 23/01/2007  
 Tunneling microscopy.

Dr. Alexandre Bouhelier  
 Université de Bourgogne, Dijon, France  
 25–28/01/2007  
 Confining photons by electromagnetic field enhancement.

Prof. Alan J. Heeger  
 University of California, Santa Barbara, USA  
 27/01/2007  
 Conducting polymers.

Becario Adolfo Del Campo Echevarria  
 Universidad del País Vasco/Euskal Herriko Unibertsitatea, Spain  
 31/01/2007  
 Quantum gases in low dimensions.



**Dr. Javier Sacristán Bermejo**

Instituto de Ciencia y Tecnología de Polimeros, Madrid, Spain

04–16/02/2007

Research focuses on the application molecular dynamics methods to study the structure and properties of a variety of polymer on the atomic scale. Bulk, free and confined polymer systems, glass transition in polymer films, static and dynamic properties of thin polymer films.

**Prof. Eugene Krasovskii**

Universität Kiel, Germany

05–09/02/2007

First-principles calculations of collective excitations in bulk metals.

**Dr. Josef Bartos**

Polymer Institute of SAS, Bratislava, Slovak Republic

11–24/02/2007

PALS and polymer dynamics.

**Prof. Cédric Crespos**

Université Bordeaux, France

12–14/02/2007

Gas/surface dynamics: adsorption processes of small molecules at surfaces.

**Prof. Pascal Larregaray**

Université Bordeaux, France

12–14/02/2007

Gas/surface dynamics: adsorption processes of small molecules at surfaces.

**Prof. Ramón Sayós Ortega**

Universidad de Barcelona, Spain

12–14/02/2007

Gas/surface dynamics: adsorption processes of small molecules at surfaces.

**Dr. Daniel Bozi**

ICMM-CSIC, Madrid, Spain

19–23/02/2007

Spectral properties of a low-dimensional correlated metal.

**Prof. Cesar Nombela Cano**

Universidad Complutense de Madrid, Spain

21/02/2007

Puntos de referencia para una ética de la biotecnología.

**Prof. Adnen Mlayah**

Université Paul Sabatier, Toulouse, France

22–25/02, 13–14/12/2007

Phonon induced inelastic light scattering.

**Dr. Andrew F. Ho**

Imperial College London, United Kingdom

24–27/02, 08–16/09/2007

Effects of disorder in one-dimensional quantum liquids, and phase diagram of binary mixtures of one-dimensional harmonic fluids.

**Prof. Malcolm J. Stott**

Queen's University, Kingston, Canada

05–11/03/2007

Modelling bioactive calcium phosphate ceramics.

**Prof. Ivan P. Chernov**

Tomsk Polytechnic University, Russia

21–27/03/2007

Dynamics of hydrogen in metals under external irradiation.

**Dr. Jessica Lorenzo**

Martin-Luther-Universität Halle-Wittenberg, Germany

23/03–12/04/2007

Study of the dynamic of liquid crystalline columnar hexagonal phases composed by amphiphilic dials molecules.

**Prof. Julio Alonso Martin**

Universidad de Valladolid, Spain

29/03–07/04/2007

Computational simulation of the intercalation of alkaline atoms in graphite and carbon nanotubes. Laser induced fragmentation of atomic clusters.

**Prof. Richard Needs**

University of Cambridge, United Kingdom

31/03–05/04/2007

Quantum Monte Carlo calculations for electrons in molecules and solids.

**Dr. Javier García de Abajo**

Instituto de Optica-CSIC Madrid, Spain

10–10/04, 29–31/05, 05–06/06, 04–06/07/2007

Simulation of optical properties of complex structures including porous metals and non-spherical nanoparticles. Study of the response of nanostructures and its interaction with fast electron. Simulation of electron-energy loss spectroscopy, cathodoluminescence, and Cherenkov radiation in complex systems.

**Prof. Martti Kauranen**

Tampere University of Technology, Finland

12–15/04/2007

Plasmons in metallic nanostructures.

**Prof. Juan De la Figuera Bayón**

Universidad Autónoma Madrid, Spain

12–15/04/2007

Stripe formation close to a critical point: Au on W(110).

**Prof. Christopher Nex**

Cavendish Laboratory, University of Cambridge, United Kingdom

13–16/04/2007

Recursion methods in computational physics.

**Dr. Melanie Köhler**

Universität Augsburg, Germany

22–25/04/2007

Dynamics of glass forming liquids.

**Dr. Caroline Genix**

Université Paris XII, France

22–25/04, 01–06/07, 13–18/09/2007

Effect of blending on the dynamics of a given polymer. In particular, the system poly(ethylene oxide) / poly(methyl methacrylate) has been chosen, due to the huge difference in the glass transition temperatures of the two components. A combination of quasielastic neutron scattering and fully atomistic molecular dynamics simulations is used to address the question of the dynamic miscibility in this system.

**Dr. Alexander Mönnich**

Technische Universität Kaiserslautern, Germany

23/04–03/05/2007

Excited electron dynamical in bulk metals measured by time-resolved two-photon photoemission.

**Dr. Anibal Iucci**

Université de Genève, Switzerland

01–31/05/2007

Out of equilibrium Many-Body systems.

**Prof. Ignacio Cirac Sasturain**

Max-Planck-Institut, Garching, Germany

04/05/2007

Quantum many-body systems: simulations and beyond.

**Dr. Eduardo Anglada Varela**

Universidad Autónoma Madrid, Spain

08–11/05/2007

ab initio calculations of geometric and transport properties of gold monatomic wires. Accelerate MD-simulations with SIESTA.

**Dr. Otto Muskens**

Institute for Atomic and Molecular Physics, Eindhoven, The Netherlands

09–12/05/2007

Plasmons and nanophotonics.

**Dr. Daniel Farias Tejerina**

Universidad Autónoma Madrid, Spain

15–18/05, 29/08–08/09/2007

Dynamics of molecular adsorption at surfaces.

**Dr. Sara Emanuela Pagnotta**

Università degli Studi Roma Tre, Italy

23–25/05/2007

Water behavior at biological interfaces and in confined geometries.

**Dr. Rolf Heid**

Forschungszentrum Karlsruhe, Germany

24/05–02/06/2007

Electron phonon interaction in metals and metal surfaces.

**Prof. Klaus Peter Bohnen**

Forschungszentrum Karlsruhe, Germany

27/05–04/06/2007

Electron phonon interaction in metals and metal surfaces.

**Prof. Emilio Artacho Cortés**

University of Cambridge, United Kingdom

28/05–01/06/2007

Electronic stopping power in insulators. LDA+U, SIC, exact-exchange in DFT calculations.

**Dr. Matthias Toews**

Nadicom, Karlsruhe, Germany

28/05/2007

Protein production in *Aspergillus nidulans* — problems and improvements.**Dr. Philippe Zinck**

Ecole Nationale Supérieure de Chimie de Lille, France

30–31/05/2007

New Polymeric Materials synthesized via coordination polymerization: recent examples from our group.

**Dr. Gustav Bihlmayer**

IFF-FZ, Forschungszentrum Jülich, Germany

04–30/06/2007

Magnetism in low dimensions: overlayers, wires and atoms.

**Prof. Felix Yndurain Muñoz**

Universidad Autonoma de Madrid, Spain

04–05/06/2007

Magnetism in two dimensional structures: from C(110) to CeRhIn5.

**Prof. Victor Hugo Ponce**

Centro Atómico Bariloche, Argentina

08–30/06/2007

Electron emission in the interaction of light ions with surfaces.

**Prof. Manuel Aguilar Benitez de Lugo**

CIEMAT, Madrid, Spain

11/06/2007

The LHC Project at CERN: a tool to unveil the enigmas of the Universe.

**Dr. Sergio Monturet Caamaño**

Université Paul Sabatier, Toulouse, France

13–16/06/2007

Inelastic effects induced by electronic currents by wave-packet propagation.

**Prof. Antoine Salin**

Université de Bordeaux I, France

14–15/06, 01–02/09/2007

Dissociation dynamics of diatomic molecules at metal surfaces.

**Prof. Rubén G. Barrera**

Instituto de Física, UNAM, México

16–18/06/2007

Use and abuse of the effective refraction index concept in colloidal systems.

**Prof. John Inglesfield**

University of Wales Cardiff, United Kingdom

17–30/06/2007

Embedding in photonics and plasmon bands in metallic nanostructures.

**Prof. Dieter Richter**

IFF-FZ, Forschungszentrum Jülich, Germany

18–23/06/2007

Polymer dynamics by neutron techniques.

**Dr. Lutz Willner**

IFF-FZ, Forschungszentrum Jülich, Germany

20–23/06, 10–15/12/2007

Dynamics and kinetics in polymeric micelles.

**Prof. Tadaaki Nagao**

National Institute of Materials Science, Tsukuba, Japan

23–28/06/2007

Surface phonons and adlayer crystal structures.

**Prof. Dietrich Foerster**

Centre de Physique Moléculaire Optique et Hertzienne, Université Bordeaux I, France

25/06–14/07/2007

Fast computation of the susceptibility of large systems.

**Dr. Emil Lezak**

Polish Academy of Sciences Lodz, Poland

03–06/07/2007

Plastic deformation of gamma phase isotactic polypropylene in the plane-strain compression.

**Prof. Yasunori Yamazaki**

University of Tokyo, Japan

22–24/07/2007

Interaction of exotic particles with matter.

**Prof. Alberto Galindo**

Universidad Complutense de Madrid, Spain

22–29/07/2007

Quantum information and quantum algorithms. Basic problems in Quantum Physics. Completion of a two-volume textbook on Advanced Quantum Mechanics, and a textbook on Space-Time Structure.

**Doctorand Marco Bernabei**

Università degli Studi Roma Tre, Italy

01–03/08/2007

Hydrogen bond percolation in supercooled water.

**Prof. Vladimir Kuznetsov**

Tomsk State University, Russia

06/08–05/09/2007

Density functional methods in the theory of phase diagrams of alloys and in the Kondo effects.

**Doctorand Nicolas Large**

Université Paul Sabatier, Toulouse, France

13–31/08/2007

Raman spectroscopy in low dimensional semiconductor structures.

**Prof. José Manuel Pereira Carmelo**

Universidade do Minho, Portugal  
22–25/08/2007  
Integrable models in one-dimension.

**Dr. Fabio Busnengo**

Universidad de Rosario, Argentina  
23/08–02/09/2007  
Dissociation of diatomic molecules at surfaces.

**Dr. Martin Aeschlimann**

Technische Universität Kaiserslautern, Germany  
24–26/08/2007  
Ultrafast two-photon photoemission studies of excited electrons in metals.

**Dr. Alexander Marienfeld**

Technische Universität Kaiserslautern, Germany  
24–26/08/2007  
Excited electron dynamics in bulk metals measured by time-resolved two-photon photoemission.

**Prof. Erio Tosatti**

SISSA, Trieste, Italy  
02–06/09/2007  
Electronic excitations in nanostructures.

**Dr. Claudio Horowitz**

Centro Atómico Bariloche, Argentina  
03/09–02/10/2007  
Optimized effective-potential approach to the Kohn-Sham exchange-correlation potential of density-functional theory.

**Prof. Istvan Nagy**

Technical University of Budapest, Hungary  
03–29/09/2007  
Various aspects of correlations in extended fermionic systems; spin-fluctuation, pair-correlation, one-particle damping, impurity-screening.

**Dr. Garnet Bryant**

National Institute of Standards and Technology, Gaithersburg, USA  
05–16/09/2007  
Optoelectronic properties of quantum dots and quantum wires.

**Dr. Johannes Padding**

University of Twente, Enschede, Holland  
05–08/09/2007  
A single particle model to simulate the dynamics of entangled polymer melts.

**Prof. Archie Howie**

Cavendish Laboratory, Cambridge, United Kingdom  
05–19/09/2007  
Theory of valence electron excitations by fast electrons.

**Dr. Wim Briels**

University of Twente, Enschede, Holland  
06–08/09/2007  
A single particle model to simulate the dynamics of entangled polymer melts.

**Prof. Josep Planelles Fuster**

Universidad Jaime I, Castellón, Spain  
06–09/09/2007  
Quantum chemistry of low dimensional systems.

**Prof. Tin-Lun Ho**

The Ohio State University, USA  
08–15/09/2007  
Theory of ultra-cold atomic gases.

**Dr. Jesús Aguirre**

Universidad Autónoma de México, México  
12–13/09/2007  
Stress signal transduction and cellular differentiation in the fungus *Aspergillus nidulans*.

**Dr. Philippe Moreau**

Institut des Matériaux Jean Rouxel, Nantes, France  
23–25/09/2007  
Comparison simulation/experiment in the Low Energy-Loss region: from lithium battery to gold nanowires.

**Dr. Arkady Krasheninnikov**

University of Helsinki, Finland  
23–25/09/2007  
Irradiation-induced phenomena in carbon nano-materials.

**Prof. Philippe Tordjeman**

Université Montpellier 2, France  
26–29/09/2007  
Nanodielectric of polymer.

**Prof. Kunie Ishioka**

National Institute for Materials Science, Tsukuba, Japan  
30/09–04/10/2007  
Coherent nuclear vibrations in solids and their control with phase-locked optical pulse pairs.

**Prof. Masahiro Kitajima**

National Institute for Materials Science, Tsukuba, Japan

30-09-04/10/2007

Time resolved spectroscopy of graphite and graphene related compounds.

**Prof. Enrique Louis Cereceda**

Universidad de Alicante, Spain

07-08/10/2007

Kondo effect in transport through CoPc and TBrPP-Co adsorbed on metal surfaces: from kondo peaks to fano dips.

**Dr. Jorge Quintanilla Tizón**

Rutherford Appleton Laboratory, Didcot, United Kingdom

09-11/10/2007

Condensed matter theory.

**Dr. Steen Brondsted Nielsen**

University of Aarhus, Denmark

15-18/10/2007

Photophysics of DNA building blocks.

**Dr. Mikko Hakala**

Helsinki University of Technology, Finland

16-19/10/2007

Hybrid functionals and local basis sets: an implementation in SIESTA.

**Prof. Francesc Salvat Gavalda**

Universidad de Barcelona, Spain

18-19/10/2007

Radiation Physics and Monte Carlo simulation.

**Prof. Rufus Ritchie**

Oak Ridge National Laboratory, USA

22-31/10/2007

Ion-Solid interactions. Dielectric response.

**Dr. Maria Victoria Fernández Serra**

CECAM-ENS Lyon, Lyon, France

22-27/10/2007

Structure and dynamics of the hydrogen bond network: from bulk water to ice and water at interfaces.

**Dr. Thomas Neicke**

SPECS GmbH, Berlin, Germany

22-24/10/2007

High resolution angular photoemission.

**Prof. Branko Gumhalter**

University of Zagreb, Croatia

2-30/11/2007

Ultrafast electron dynamics on metal surfaces.

**Dr. Marco Polini**

Scuola Normale Superiore, Pisa, Italy

5-10/11/2007

Electron-electron interaction effects in graphene; low-dimensional cold atomic gases.

**Prof. Francisco Guinea Lopez**

Instituto de Ciencia Materiales de Madrid-CSIC, Spain

8-13/11/2007

Condensed matter physics.

**Prof. Lluís Torner**

ICFO-The Institute of Photonic Sciences, Barcelona, Spain

28/11/2007

Conducts research and education in photonics, with emphasis in applications to non-linear optics, all-optical telecommunications, and optical solitons.

**Dr. Truman Von Lilienfeld**

Sandia National Laboratories, Albuquerque, USA

5-9/12/2007

First principles modelling of biological complexes.

**Prof. Ulrich Hofer**

Philipps-Universität Marburg, Germany

5-7/12/2007

Time-resolved two-photon photoemission of Ar/Cu interface states.

**Dr. Emanuela Zaccarelli**

Sapienza Università di Roma, Italy

11-16/12/2007

Mode coupling theory of the glass transition.

**Dr. Cem Sevik**

Bilkent University, Turkey

11-13/12/2007

Carrier transport in Si and Ge nanocrystals.