

WORKSHOP 'PASSION FOR INTERFACES': TENTATIVE PROGRAM

TUESDAY SEPTEMBER 28: MORNING SESSIONS

09:00-09:15 OPENING

CHAIRMAN: Prof. Martin Weinelt (Free University Berlin, Germany)

09:15-10:00 KEYNOTE PASSION FOR ELECTRONS

Prof. W-D Schneider (École Polytechnique Fédérale de Lausanne)

"Quantum oscillations, superconductivity, zero-bias anomalies, and Coulomb blockade in nanoscaled supported lead islands"

CHAIRMAN: Prof. Geert-Jan Kroes (Leiden University, Netherlands)

10:05-10:35 Prof. Miquel Salmeron

(LBNL and University of California, USA)
"From vacuum to atmosphere: microscopies and spectroscopies for molecular level studies of surfaces and interfaces"

10:35-11:05 Prof. Emilio Artacho

(University of Cambridge, UK)
"First-principles simulations of oxide hetero-structures: electrostatics, interface charges and vacancies"

11:05-11:25 Prof. Hajo Freund

(Fritz Haber Institute, Germany)
"Electronic structure relations of oxide metal interfaces at the atomic level"

COFFEE BREAK

CHAIRMAN: Prof. Hajo Freund (Fritz Haber Institute, Germany)

11:50-12:20 Prof. Rodolfo Miranda

(IMDEA and UAM, Madrid, Spain)
"Periodically Rippled Epitaxial Graphene: An Electronically and Structurally Nanostructured Material"

12:20-12:50 Dr. Daniel Sánchez-Portal

(CFM, San Sebastián, Spain)
"Graphene interacting with transition metals: tuning the electronic and magnetic properties of graphene"

12:50-13:10 Dr. E. Avellar Soares

(Physics Department-ICEx-UFMG, Brazil)
"Graphene-covered iron layers on Ni(111): structural and electronic properties"

13:10-13:30 Dr. Laura Fernández

(DIPC, Spain)
"Ultra-high dense array of magnetic quantum dots on a GdAu₂ template"

LUNCH BREAK

TUESDAY SEPTEMBER 28: AFTERNOON SESSIONS

CHAIRMAN: Prof. Antoine Salin (Université Bordeaux, France)

15:00-15:30 Prof. Aart Kleyn (FOM Institute, Nieuwegein, Netherlands)
“When energy is not a problem: interactions with fast and excited particles at surfaces”

15:30-15:50 Dr. Pascal Larregaray (CNRS/Université Bordeaux1, France)
“Theoretical investigation of the Eley-Rideal recombination of nitrogen on W(100)”

15:50-16:10 Dr. Serge Monturet (Universität Potsdam, Germany)
“Electronic damping of vibrations: the case of NO on Au(111)”

17:00-21:00 THE LECTURES

WEDNESDAY SEPTEMBER 29: MORNING SESSIONS

CHAIRMAN: Dr. Javier Aizpurua (CFM and DIPC, San Sebastián, Spain)

09:00-09:45 KEYNOTE PASSION FOR PHOTONS

Prof. Naomi Halas (Rice University, Houston, USA)
"Keynote Passion for Photons"

CHAIRWOMAN: Prof. Maki Kawai (RIKEN, Wako, Japan)

09:50-10:20 Prof. Karina Morgenstern (Leibniz Universität, Hannover, Germany)
"Single molecule manipulation by light and electrons"

10:20-10:50 Prof. Karsten Reuter (TU, München, Germany)
"Adsorption of aromatic molecules: Tackling the van der Waals challenge with DFT-D?"

COFFEE BREAK

CHAIRMAN: Prof. Juan Colmenero (UPV-CFM and DIPC, San Sebastián, Spain)

11:30-12:15 KEYNOTE PASSION FOR SOFT MATTER

Prof. Dieter Richter (Forschungszentrum Jülich, Germany)
"Soft Matter and Live Science: Research with Neutrons"

CHAIRMAN: Prof. Aart Kleyn (FOM Institute, Nieuwegein, Netherlands)

12:20-12:50 Dr. Celia Rogero (CFM, San Sebastián, Spain)
"Surface coordination chemistry: structure and reactivity of tetrapyrrole molecules"

12:50-13:20 Dr. H. Fabio Busnengo (Universidad Nacional de Rosario, Argentina)
"Structure of self-assembled monolayers of alkylthiolates on Au(111) and Ag(111): a comparative study based on Density Functional and post Hartree-Fock calculations"

13:20-13:40 Maria J.T.C. van der Niet (Leiden University, Netherlands)
"Interactions between H₂O and pre-adsorbed O or D on stepped platinum surfaces"

LUNCH BREAK

WEDNESDAY SEPTEMBER 29: AFTERNOON SESSIONS

15:00-16:30 POSTER SESSION

17:00-21:00 THE LECTURES

THURSDAY SEPTEMBER 30: MORNING SESSIONS

CHAIRMAN: Dr. Ricardo Díez Muiño (CFM and DIPC, San Sebastián, Spain)

09:00-09:45 KEYNOTE PASSION FOR INTERFACES

Prof. Fernando Flores (UAM, Madrid, Spain)

“Organic and inorganic semiconductor interfaces across physics, chemistry and time”

CHAIRMAN: Prof. Andrés Arnau (UPV- CFM, San Sebastián, Spain)

09:50-10:20 Prof. Maki Kawai (RIKEN, Wako, Japan)

“Single Molecule Spectroscopy: Electronic state, vibrational state and spin state”

10:20-10:50 Prof. Pietro Gambardella (CIN2, Barcelona, Spain)

“Spin-spin and spin-orbital coupling effects at metallic interfaces”

10:50-11:10 Dr. Lucia Vitali (CFM and UPV, San Sebastián, Spain)

“Potential barrier mapping at metal-organic nanocontacts”

COFFEE BREAK

CHAIRMAN: Prof. Enrique Ortega (UPV- CFM, San Sebastián, Spain)

11:40-12:10 Prof. Franz J. Himpsel (University of Wisconsin Madison, USA)

“Atom-Specific Spectroscopy of Interfaces for Biosensors and Solar Cells”

12:10-12:40 Dr. Nicolás Lorente (CIN2, Barcelona, Spain)

“Mixed-valency signature in vibrational inelastic electron tunneling spectroscopy”

12:40-13:10 Prof. J. I. Pascual (Freie Universität, Berlin, Germany)

“Charging and electric field gating individual molecules at a hybrid metal-organic interface”

13:10-13:30 Dr. Aitor Mugarza (CIN2, Barcelona, Spain)

“Exotic Kondo effect in metalorganic complexes controlled by ion-substrate interaction”

LUNCH BREAK

THURSDAY SEPTEMBER 30: AFTERNOON SESSIONS

CHAIRMAN: Prof. Emilio Artacho (University of Cambridge, UK)

15:00-15:30 Prof. G. -J. Kroes (Leiden University, Netherlands)
“Achieving chemical accuracy for a prototype molecule-surface reaction”

15:30-15:50 Dr. Holly Hedgeland (University of Cambridge, UK)
“Dynamic and static processes in interface interaction”

15:50-16:10 Jörg Meyer (Fritz-Haber Institute, Berlin, Germany)
“QM/Me – a novel embedding approach for adsorbate dynamics on metal surfaces”

16:10-16:30 Gerson Mette (Philipps-Universität, Marburg, Germany)
“Time-resolved investigation of laser-induced diffusion by optical second-harmonic microscopy”

17:00-21:00 THE LECTURES