

TNT2004 - POSTER PRESENTATION DETAILS

Poster size: Max width: 1m - height: 1.22m


Session A (PA): From Monday morning to Tuesday afternoon.

Session B (PB): From Wednesday morning to Friday lunch time.

Posters from Session A (PA) should be installed on Sunday between 17h00 - 20h00 and removed on Tuesday between 18h30 - 20h00.

Posters from Session B (PB) should be installed on Wednesday before 10h30 and removed on Friday before 14h00.

K: Keynote Lecture / O: Oral Presentation

SCIENTIFIC PROGRAM - TNT2004		
Monday, 13th September 2004		
08h00-09h00	REGISTRATION	
09h00-09h15	Welcome and Introduction	
Chairman: Ron Reifenberger		
09h30-10h00	Masakazu Aono (NIMS, Japan) " <i>Controlling local polymerization and depolymerization reversibly using a scanning probe</i> "	K
10h00-10h30	Hiroshi Yokoyama (AIST, Japan) " <i>Precision-Controlled Scanning Probe Anodic Oxidation: A Versatile Nano-Prototyping Platform</i> "	K
10h30-10h45	Monica A. Cotta (UNICAMP - IFGW, Brazil) " <i>Strain distribution and shape stability in InAs nanostructures</i> "	O
10h45-11h00	Maria Varela (Oak Ridge National Laboratory, USA) " <i>Atomic Scale analysis of complex oxide interfaces</i> "	O
11h00-12h00	Coffee Break - Poster Session A - Instrument Exhibition	
<p>Session – Sponsored by NIMS-Nanomaterials laboratory (Japan)</p> <p>Chairman: Masakazu Aono</p> 		
12h00-12h30	Young Kuk (Seoul National University, Korea) " <i>One-dimensional wires and their interconnections</i> "	K
12h30-13h00	Tomihiko Hashizume (Hitachi Advanced Research Lab., Japan) " <i>Conductance of organic nanowires using two-/four-probe fine electrodes fabricated by SPM nanofabrication</i> "	K
13h00-13h30	Masaru Tsukada (Waseda University, Japan) " <i>Theory of Quantum Transport of nano-structures</i> "	K
13h30-15h30	Lunch	
Chairman: Hiroshi Yokoyama		
15h30-16h00	Eiichi Nakamura (The University of Tokyo, Japan) " <i>Synthetic chemistry: The gateway to nanoscience</i> "	K
16h00-16h15	Markus Wahl (University of Basel, Switzerland) " <i>2D polymerization of polymerization of planar molecular networks</i> "	O
16h15-16h30	Aranzazu del Campo (Universita degli Studi di Urbino, Italy) " <i>Hierarchical chemical patterning of planar surfaces through wavelength-selective activation of orthogonal photolabile silanes</i> "	O
16h30-17h00	Patrick Van Hove (European Commission / IST-FET, Belgium) " <i>Nanotechnologies for information processing</i> "	K
17h00-17h30	Short Coffee Break	
Chairman: Erio Tosatti		
17h30-18h00	Federico Capasso (Harvard University, USA) " <i>Harnessing vacuum fluctuations: physics and nanomechanics applications of Casimir-Lifshitz forces</i> "	K
18h00-18h15	Ramon Aguado (ICMM-CSIC, Spain) " <i>Shot noise spectrum of charge qubits realized in nanodevices</i> "	O
18h15-18h30	Hsi-Sheng Goan (University of New South Wales, Australia) " <i>Analysis of a scheme to observe quantum jumps of phonon transitions in a nanomechanical oscillator</i> "	O
Chairman: Stephan Roche		
18h0-19h00	Jean-Philippe Bourgoin (CEA Saclay, France) " <i>Self-assembled carbon nanotube devices</i> "	K
19h00-19h30	Christian Joachim (CEMES/CNRS, France) " <i>Towards atomic scale interconnects with a molecular device</i> "	K
19h30-21h30	Poster Session A - Instrument Exhibition / Refreshments	
		PS

SCIENTIFIC PROGRAM - TNT2004		
Tuesday, 14th September 2004		
Chairman: Christian Joachim		
08h30-09h00	Georg S. Dusberg (Infineon Technologies AG, Germany) <i>"Controlled Growth of Carbon Nanotubes for Applications in Microelectronics"</i>	K
09h00-09h15	Maya Doytcheva (Philips Research Laboratories, Netherlands) <i>"Carbon nanotubes as electron sources in electron microscopes"</i>	O
09h15-09h45	Stephan Roche (CEA/DRFMC, France) <i>"Electronic transport phenomena in carbon-nanotube and DNA-based devices"</i>	K
09h45-10h00	Douglas Galvao (State University of Campinas, Brazil) <i>"Packing C60 in carbon nanotubes: an atomistic molecular dynamics study"</i>	O
10h00-10h15	Benjamin Lassagne (Lab. National des Champs Magnetiques Pulses, France) <i>"Magneto-transport in double wall carbon nanotubes: New Phenomena under 60T"</i>	O
10h15-10h30	Pablo Jarillo-Herrero (Kavli Institute of Nanoscience Delft, Netherlands) <i>"Electron-Hole Symmetry in a Semiconducting Carbon Nanotube Quantum Dot"</i>	O
10h30-11h30	Coffee Break - Poster Session A - Instrument Exhibition	
<p>"Nanobiotechnology" Session – Sponsored by iNANO (Denmark)</p> 		
Chairman: Peter Thstrup		
11h30-12h00	Andreas Engel (University of Basel, Switzerland) <i>"Imaging native membranes with the atomic force microscope"</i>	K
12h00-12h30	Mathis Riehle (University of Glasgow, UK)	K
12h30-13h00	Noboru Yamazaki (NRI/AIST, Japan) <i>"Biomedical nanotechnology for the development of active targeting DDS"</i>	K
13h00-13h15	Jose-Martin Gago (ICMM-CSIC, Spain) <i>"Peptide nucleic acids can form ordered self-assembled monolayers on surfaces with DNA recognition capability"</i>	O
13h15-13h30	Olle Inganas (Biomolecular and Organic Electronics - IFM, Sweden) <i>"Wiring conjugated polymers and biomacromolecules"</i>	O
13h30-15h30	Lunch	
Chairman: Mathis Riehle		
15h30-16h00	Gerhard Meyer (IBM Research, Switzerland) <i>"Metal atoms on ultrathin insulating films: Controlling the charge state of individual gold atoms"</i>	K
16h00-16h15	Josep Samitier (Parque Cientifico de Barcelona, Spain) <i>"Nano2Life a contribution to build the European Research Area in Nanobiotech"</i>	O
16h15-16h30	Dimitrios Stamou (EPFL, Switzerland): <i>"Bio-nanotechnology: templated assembly of functional nanoscopic elements on surfaces"</i>	O
Chairman: Josep Samitier		
16h30-17h00	Stuart Wolf (DARPA, USA) <i>"Nanoelectronics beyond CMOS: Spin and Quantum Devices"</i>	K
17h00-17h30	Mark Welland (University of Cambridge/IRC, UK) <i>"Vapour phase growth of silicon carbide based nanostructures"</i>	K
17h30-18h30	Coffee Break - Poster Session A - Instrument Exhibition	
Chairman: Mark Welland		
18h30-19h00	Mervyn Miles (University of Bristol, UK) <i>"New SPM developments for characterization and creation of nanostructures"</i>	K
19h00-19h30	Dany Porath (Hebrew University, Israel) <i>"SPM and charge transport measurement through DNA molecules of complex sequence"</i>	K
19h30-20h00	Roberto Otero (iNANO, Denmark) <i>"STM studies of hydrogen-bonded DNA base aggregates"</i>	K

SCIENTIFIC PROGRAM - TNT2004

Wednesday, 15th September 2004

**"Standards and Nanotechnology" Session – Sponsored by
IEEE (USA)**



Chairman: Ken Dean

08h30-09h00	Edward Rashba (IEEE, USA) <i>"Introduction to nanotechnology standards"</i>	K
09h00-09h30	Krishna Kalyanasundara (Motorola, USA) <i>"Nanotechnology standards along the product life cycle"</i>	K
09h30-10h00	Robert Shull (NIST, USA) <i>"Materials metrology in nanotechnology"</i>	K
10h00-10h30	John Tucker (Keithley Instruments, USA) <i>"A Perspective On The Need for Electrical Measurement Instrumentation, Methodologies, and Metrology Standards for Nanotechnology"</i>	K
10h30-11h00	Coffee Break - Instrument Exhibition	
	Chairman: Edward Rashba	
11h00-11h30	Ken Dean (Motorola, USA) <i>"Interoperability in hybrid systems"</i>	K
11h30-12h00	Meyya Meyyapan (NASA, USA) <i>"Carbon nanotubes characterization challenges - Electrical and thermal properties"</i>	K
12h00-12h30	Andy Henson (International Office of the National Physical Lab, UK) <i>"Is international collaboration in nanotechnology standards a luxury or a necessity?"</i>	K
12h30-13h00	Panel Session (moderated by Krishna Kalyanasundara): <i>"Standards and Nanotechnology- What is needed, Who Benefits, What are the Risks?"</i>	K
13h00-15h00	Lunch	
	Chairman: Clivia Sotomayor Torres	
15h00-15h30	Ivan K. Schuller (UCSD, USA) <i>"Magnetism in confined structures"</i>	K
15h30-16h00	Erio Tosatti (SISSA, Italy) <i>"Liquid nanodroplets that do not wet their own solid: contrasting NaCl against metals"</i>	K
16h00-16h15	Jose L. Menendez (INCAR - CSIC, Spain) <i>"Dimensionality effects and domain wall propagation on perpendicularly exchange biased wires"</i>	O
16h15-16h30	Daniela Zanchet (Laboratorio Nacional de Luz Sincrotron, Brazil) <i>"Dipolar interactions in Fe-Fe oxide colloidal nanoparticles: Size and concentration effects"</i>	O
16h30-17h00	Coffee Break - Poster Session B - Instrument Exhibition	
	Chairman: Juan Jose Saenz	
17h00-17h30	Clivia Sotomayor Torres (NMRC, UK) <i>"The potential impact of confined acoustic phonons in SOI-based nanoelectronics"</i>	K
17h30-18h00	Frank Scheffold (University of Fribourg, Switzerland) <i>"Photonic liquids: Transport of light in strongly correlated particle assemblies"</i>	K
18h00-18h30	F. Javier Garcia de Abajo (CSIC-UPV/EHU, Spain) <i>"Probing local optical properties using fast electrons"</i>	K
18h30-20h30	Poster Session B - Instrument Exhibition	
	CONFERENCE DINNER	
21h30	(Restaurante "La Floresta" (Segovia))	
00h30	POSTER AWARDS CEREMONY	

SCIENTIFIC PROGRAM - TNT2004		
Thursday, 16th September 2004		
Chairman: L. Jay Guo		
10h00-10h30	Peter Gruetter (McGill University, Canada) " <i>Making Contact to Nanostructures by SPM</i> "	K
10h30-10h45	Josep Fontcuberta (ICMM-CSIC, Spain) " <i>Self-organization in complex oxide thin films. from 2D to 0D nanostructures of SrRuO₃ and CoCr₂O₄</i> "	O
10h45-11h00	Zeger Hens (Gent University, Belgium) " <i>Electrodeposited PbSe nanocrystals: synthesis, electrical and optical properties</i> "	O
11h00-11h30	Coffee Break - Poster Session B - Instrument Exhibition	
Chairman: Peter Gruetter		
11h30-11h45	Jurriaan Huskens (University of Twente-MESA+, Netherlands) " <i>Soft and probe lithography without ink transfer</i> "	O
11h45-12h00	Helmut Schift (Paul Scherrer Institut, Switzerland) " <i>Fabrication process for polymer photonic crystals using nanoimprint lithography</i> "	O
12h00-12h30	Juergen Brugger (EPFL, Switzerland) " <i>Ties between microsystem technology and nano-engineering</i> "	K
12h30-13h00	L. Jay Guo (University of Michigan, USA) " <i>Nanoimprint technology: recent progress and applications</i> "	K
13h00-13h30	Joachim P. Spatz (University of Heidelberg, Germany) " <i>Biophysical models of cell adhesion and mechanics applying nano- and microstructured materials and tools</i> "	K
13h30-15h30	Lunch	
Chairman: Daniel Ugarte		
15h30-16h00	Mei-Yin Chou (Georgia Institute of Technology, USA) " <i>Quantum size effects in nanostructures: Thin metal films and semiconductor nanowires</i> "	K
16h00-16h30	Anwar Hasmy (IVIC, Venezuela) " <i>Ballistic resistivity in Al nanocontacts</i> "	K
16h30-16h45	Luc Piraux (University of Louvain, Belgium) " <i>New routes for producing nanowires and nanotubes and their physical properties</i> "	O
16h45-17h00	Riccardo Rurali (Universite Paul Sabatier, France) " <i>On the properties of surface reconstructed silicon nanowires</i> "	O
17h00-17h15	Aarnoud Roest (Philips Research, Netherlands) " <i>Making a technology work: from nanowire science to a real device</i> "	O
17h15-17h45	Short Coffee Break	
Chairman: Jose-Luis Costa Kramer		
17h45-18h15	Alexander Shluger (University College London, UK) " <i>Measuring the force of individual surface ions</i> "	K
18h15-18h30	Jorge Iribas Cerda (ICMM-CSIC, Spain) " <i>Novel two-dimensional water structures on Pd(111) studied by STM: Experiment and theory</i> "	O
18h30-18h45	Nuria Lopez (Universitat de Barcelona, Spain) " <i>When Langmuir is too simple: H₂ dissociation on pd(111) at high coverage</i> "	O
18h45-19h00	Christian K. Riener (University College London, UK) " <i>Dynamic force spectroscopy of single molecule ligand-receptor interactions at high loading rates</i> "	O
19h00-19h15	Regina Hoffmann (University of Karlsruhe, Germany) " <i>Sublattice identification by non-contact afm on the (001) surface of a rocksalt-type crystal</i> "	O
19h15-21h30	Poster Session B - Instrument Exhibition / Refreshments	
SEGOVIA GUIDED TOUR AT NIGHT		
22h00	Departure from "El Acueducto"	

SCIENTIFIC PROGRAM - TNT2004		
Friday, 17th September 2004		
Chairman: Anwar Hasmy		
08h30-09h00	Constantine Yannouleas (Georgia Institute of Technology, USA) <i>"Formation and properties of electron crystallites in semiconductor quantum dots"</i>	K
09h00-09h30	Daniel Ugarte (Lab. Nacional Luz Sincrotron, Brazil) <i>"Quantum conductance properties of atomic-size metal wires"</i>	K
09h30-09h45	Marta Prada (University of Leeds, UK) <i>"Tight-binding approach to the solution of N>2 quantum dot Network: A detailed study of the nuclear spin relaxation for memory-storage devices"</i>	O
09h45-10h00	Marco Pala (Universita di Pisa, Italy) <i>"Modelling ballistic magnetoconductance and magnetic focusing in SiGe cavities"</i>	O
10h00-10h15	Anton Malko (EPFL, Switzerland) <i>"Single photon emitters based on InGaAs/AlGaAs nanostructured grown in the inverted pyramids"</i>	O
10h15-10h45	Enrique Calleja (Universidad Politécnic de Madrid, Spain) <i>"Nanocavities and nanoemitters with AlN/GaN Bragg reflectors grown by MBE in Nanocapillar arrays"</i>	K
10h45-11h15	Coffee Break - Poster Session B – Instrument Exhibition	
Chairman: Juergen Brugger		
11h15-11h45	Hai-Ping Cheng (University of Florida, USA) <i>"Coherent electron transport through a molecular nano-junction: A light-driven molecular switch"</i>	K
11h45-12h00	Robert Stadler (Technical University of Denmark, Denmark) <i>"An ab initio study of electron transport through nitro-benzene: The influence of leads and contacts"</i>	O
12h00-12h15	Imma Ratera (Lawrence Berkeley National Laboratory, USA) <i>"Mechanical and charge transport properties of self assembled organic monolayers"</i>	O
12h15-12h30	Ganesh Ramachandran (NIST, USA) <i>"Electron transport in conjugated organic molecules: Carotene dithiols"</i>	O
12h30-13h00	Phil Kuekes (Hewlett-Packard, USA) <i>"Feasible architectures for molecular electronics"</i>	K
Chairman: Ivan K. Schuller		
13h00-13h15	J. F. Fernandez (IMM - CSIC, Spain) <i>"Nanostructure and magnetic properties of Mn doped ZnO, a RT magnetic semiconductor?"</i>	O
13h15-13h30	Antonio Hernando (Universidad Complutense de Madrid, Spain) <i>"Tuning the magnetic properties of gold nanoparticles"</i>	O
13h30-14h00	Albert Fert (CNRS/THALES, France) <i>"New directions in spintronics"</i>	K
14h00-14h15	CLOSING REMARKS	
14h15-15h30	Lunch	