2nd Multifrequency AFM Conference

Monday June 15, 2009

Time	Contribution	Speaker
13.55-14.00	Organizer	Ricardo García
Session I - Perspectives		
14.00-14.30	Invited 1	"Applications of torsional harmonic cantilevers in microRNA expression profiling and compositional mapping of biomembranes" Ozgür Sahin Rowland Institute at Harvard, Cambridge, MA (USA)
14.30-15.00	Invited 2	"Non-linear dynamics of bimodal atomic force microscopy" Robert Stark Ludwig-Maximilians-Universität München, Munich (Germany)
15.00-15.30	Invited 3	Robert Magerle
15.30-16.00	Coffee break	
Session II - Bimodal AFM 1		
16.00-16.20	Oral 1	"Bimodal Dual AC Imaging of Collagen Fiber Ultra-structure" Roger Proksch Asylum Research, Santa Barbara, CA (USA)
16.20-16.40	Oral 2	"Bimodal AFM imaging of isolated biomolecules" Elena Tomás Instituto de Microelectrónica de Madrid, CSIC (Spain)
16.40-17.00	Oral 3	"Theory of bimodal AFM" José Luis Rodríguez Instituto de Microelectrónica de Madrid, CSIC (Spain)
17.00-17.10	Short Break	
Session III - Bimodal AFM 2		
17.10-17.30	Oral 4	"Advantages, interpretation and inversion of bimodal non-contact AFM" Alexis Baratoff Department of Physics, University of Basel, Basel (Switzerland)
17.30-17.50	Oral 5	"Improved atomic scale contrast via bimodal dynamic force microscopy" Shigeki Kawai Department of Physics, University of Basel, Basel (Switzerland)
17.50-18.10	Oral 6	"Multifrequency non-contact Atomic Force Microscopy" Ramazan Sahin Physics Department, Istanbul Technical University, Istanbul (Turkey)
20.00-22.00	Poster Session + Buffet dinner	

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Session IV - Applications		
8.30-9.00	Invited 4	"Actuation and transduction of nanomechanical resonators for biological detection" Javier Tamayo IMM-CNM, CSIC, Madrid, (Spain)
9.00-9.30	Invited 5	Rainier Hillenbrand
9.30-10.00	Invited 6	"Exploration and Mitigation of AFM Imaging Artifacts through Continuum-Atomistic Simulation of Single and Dual-frequency Characterization: Paving the Way for Experimental Developments" Santiago D. Solares University of Maryland College Park, MD (USA)
10.00-10.30	Coffee Break	
Session V - Higher Harmonics		
10.10-10.30	Oral 7	"Second harmonic atomic force microscopy of collagen fibrils and bacterial cell surfaces in aqueous environments" Neil Thomson University of Leeds, Leeds (UK)
10.30-11.00	Oral 8	"Frequency variations of dynamic force microscopy on immunoglobulin G arrays and their surface charges" Yoo Jin Oh Ewha Womans University, Seoul (Korea)
11.00-11.20	Oral 9	"Modelling and analysis of autonomous microcantilever oscillations" Massimo Vassalli Biophysics Institute (IBF) – CNR, Genoa (Italy)
11.20-11.30	Short break	
11.30-11.50	Oral 10	"Phase contrast mechanisms in dynamic atomic force microscopy with multiple eigenmode interactions" John Melcher Purdue University, West Lafayette (USA)
11.50-12.10	Oral 11	"Simulation of Effective Elastic Modulus Estimation from Torsional Harmonics in the Presence of Noise" Seref B. Selvi Bilkent University, Ankara (Turkey)
12.10-12.30	Oral 12	"Measuring vertical and lateral electrostatic forces by higher resonances in Kelvin Probe Force Microscopy" Th. Glatzel University of Basel, Basel (Switzerland)
12.30-12.50	Oral 13	"Development of Multifrequency High-speed AFM with the capability of imaging topography, energy dissipation and elasticity in liquid" Y. J. Li Osaka University, CREST (Japan)
12.50-14.30	Lunch	
Session VII - Acoustic force microscopy		
14.30-15.00	Invited 7	"Mapping of material properties using AFM cantilever contact-resonances" Walter Arnold Saarland University, Saarland (Germany)

15.00-15.30	Invited 8	"On the mechanism of subsurface force microscopy" Ali Passian Oak Ridge National Laboratory, Oak Ridge, TN (USA)
15.30-16.00	Coffee Break	
16.00-16.20	Oral 14	"Ultrasonic Force Microscopy Imaging of Flat Molecules Domains" Cristiano Albonetti ISMN-CNR, Bologna (Italy)
16.20-16.40	Oral 15	"Intermittent-Contact Heterodyne Force Microscopy" M. Teresa Cuberes University of Castilla-La Mancha, Almadén (Spain)
	Short Break	
Session VIII - Multifrequency Phase Imaging		
16.50-17.10	Oral 16	"Phase Imaging in Intermodulation AFM" Daniel Platz Royal Institute of Technology (KTH) , Stockholm (Sweden)
17.10-17.30	Oral 17	"Theoretical Analysis of Intermodulation AFM" Carsten Hutter Stockholm University, Stockholm (Sweden)
17.30-17.50	Oral 19	"Phase imaging in bimodal AFM" Christian Dietz Instituto de Microelectrónica de Madrid, CSIC (Spain)
17.50-18.10	Oral 20	"Deciphering Nanoscale Interactions: Artificial Neural Networks and Scanning Probe Microscopy" Sergei V. Kalinin Oak Ridge National Laboratory, Oak Ridge, TN (USA)