

# WIRMS 2011

## AGENDA

**6th International Workshop on Infrared Microscopy  
and Spectroscopy with accelerator based Sources**

TRIESTE, ITALY  
4-8 SEPTEMBER 2011

Monday, September 5

<b>OPENINGS</b>	
9.00	<b>Stefano Lupi</b> <i>Chair</i>
9.10	<b>Alfonso Franciosi</b> <i>ELETTRA CEO</i>

<b>FACILITIES</b> <i>Chair: Stefano Lupi</i>	
9.30	<b>Paolo Calvani</b> <i>A survey of the Italian activity in the infrared spectroscopy with electron-beam sources</i>
10.00	<b>Gianfelice Cinque</b> <i>The Infrared Microspectroscopy beamline at Diamond: first performances and experimental results</i>
10.20	<b>Tor Pedersen</b> <i>Research Highlights from the Mid IR Beamline at the Canadian Light Source</i>
10.40	<b>Ralph Müller</b> <i>Status of the IR and THz activities at the Metrology Light Source</i>

11.00	COFFEE BREAK Sponsored by 
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<b>MICRO-SPECTROSCOPY I</b> <i>Chair: Maya Kiskinova</i>	
11.30	<b>Peter Gardner</b> <i>Synchrotron based infrared spectroscopy for drug-cell interactions at the single cell level</i>
12.00	<b>Ljiljana Puskar</b> <i>Synchrotron FTIT and XFM analysis of paint cross sections from an 18<sup>th</sup> century iconostasis</i>
12.20	<b>Krzysztof Banas</b> <i>Multivariate statistical analysis on FTIR spectra as a tool for the extraction of hidden information in the investigation of atherosclerotic plaque in mice</i>
12.40	<b>Marjana Regvar</b> <i>New insights in metal hyperaccumulation of <i>Thlapsi praecox</i> using correlative SR FTIR and LEXRF analysis at ELETTRA</i>

13.00	<b>LUNCH</b>
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<b>TIME-RESOLVED SPECTROSCOPIES</b> <i>Chair: Ulrich Schade</i>	
14.30	<b>Andrea Cavalleri</b> <i>Nonlinear THz optics in High-Tc Superconductors</i>
15.00	<b>Shin-ichi Kimura</b> <i>Terahertz-Pump Photoemission Probe Spectroscopy (TP<sup>3</sup>S) Beamline at UVSOR-II</i>
15.20	<b>G. Lawrence Carr</b> <i>Characteristics of Coherent THz pulses from Linac-based Sources and Applications in Material Dynamics</i>
15.50	<b>Daniele Nicoletti</b> <i>Mode-selective vibrational control of “Mottness” in a one-dimensional organic conductor</i>
16.10	<b>David B. Tanner</b> <i>Photons and magnetic fields: The use of synchrotron sources to study pairbreaking in superconductors</i>

16.30	COFFEE BREAK Sponsored by 
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<b>EXTREME CONDITIONS</b> <i>Chair: Shin-Ichi Kimura</i>	
17.00	<b>Hidekazu Okamura</b> <i>High pressure infrared studies of strongly correlated electron materials</i>
17.30	<b>Carlo Marini</b> <i>A combined Raman and Infrared investigation of the Insulator to Metal Transition in NiS<sub>2-x</sub>Se<sub>x</sub> compounds</i>
17.50	<b>Leonetta Baldassarre</b> <i>Optical properties of BaFe<sub>2</sub>As<sub>2</sub> under pressure at low temperature</i>

18.30	<b>POSTER SESSION I AND VENDOR EXHIBITION</b>      
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Tuesday, September 6

<b>CONDENSED MATTER</b> <i>Chair: Paolo Calvani</i>	
9.00	<b>Christian Bernhard</b> <i>Infrared ellispometry studies on complex oxides and multilayers thereof</i>
9.30	<b>Alexander Boris</b> <i>Control of electron flow and magnetism in atomically thin transition metal oxides</i>
9.50	<b>Michael Martin</b> <i>Graphene Studies via SR-FTIR: Dirac Fermions, Phonon-Exciton Interactions, Quantum Pathways, and Plasmonics</i>
10.20	<b>Leonardo Degiorgi</b> <i>Anisotropic charge dynamics in detwinned <math>Ba(Fe_{1-x}Co_x)_2As_2</math></i>

10.40	COFFEE BREAK Sponsored by 
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<b>NEAR-FIELD</b> <i>Chair: Andrea Perucchi</i>	
11.10	<b>Stephan Winnerl</b> <i>Near-field spectroscopy on semiconductor micro- and nanostructures at FELBE</i>
11.40	<b>Fritz Keilmann</b> <i>Near-field mid-infrared broadband nanoscopy</i>
12.00	<b>Erik Bründermann</b> <i>Chemical Nanoscope at ANKA-IR2: Detection Schemes</i>
12.20	<b>Yuka Ikemoto</b> <i>Scattering-type near-field optical microscopy by infrared synchrotron radiation source</i>
12.40	<b>Diedrich A. Schmidt</b> <i>ANKA-IR2 Far- and Near-field Combined Microscope and Applications</i>

13.00	LUNCH
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	<b>SPONSORED TALK</b>
14.30	<b>Diego Sali</b> <i>Vacuum FT-IR spectrometer: Research Tool at IR Beamlines of electron Synchrotrons</i>

	<b>MICRO-SPECTROSCOPY II</b> <i>Chair: Peter Gardner</i>
14.50	<b>Hoi-Ying N. Holman</b> <i>Label-free monitoring of chemical reaction dynamics in cells during stress-adaptive response</i>
15.20	<b>Giovanni Birarda</b> <i>Microfluidic Devices for Living Cell Measurements using Synchrotron Radiation Infrared Microspectroscopy</i>
15.40	<b>Lisa Vaccari</b> <i>Single living cell analysis by SR-IRMS, advantages, disadvantages and future perspectives</i>
16.00	<b>Mark Tobin</b> <i>Cellular and sub-cellular FTIR spectroscopy of cell signaling and migration by transmission and dual-element ATR microscopy</i>

16.20	<b>COFFEE BREAK</b>
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	<b>SPONSORED TALK</b>
16.50	<b>Grigory I. Kropotov</b> <i>TYDEX: Optics for THz Photonics</i>

	<b>MICRO-SPECTROSCOPY III</b> <i>Chair: Lisa Vaccari</i>
17.10	<b>Mariangela Cestelli Guidi</b> <i>ATR-FTIR synchrotron real-time imaging of living cells: a new approach</i>
17.30	<b>Mark Frogley</b> <i>Optical standing wave and scattering artifacts in transfectance FTIR microspectroscopy of biological materials</i>
17.50	<b>Per Uvdal</b> <i>Microspectroscopic evidence of 70 million years old bone proteins</i>

18.30	<b>POSTER SESSION II AND VENDOR EXHIBITION</b>
	    

Wednesday, September 7

<b>IMAGING</b> <i>Chair: Mariangela Cestelli Guidi</i>	
9.00	<b>Michael Nasse</b> <i>High-resolution Infrared Chemical Imaging with Multiple Synchrotron Beams</i>
9.30	<b>Sasa Bajt</b> <i>Searching for Extraterrestrial Organics in STARDUST Aerogel</i>
9.50	<b>Agnieszka Banas</b> <i>Detection of microscopic particles present as contaminants in latent fingerprints</i>
10.10	<b>Yao-Chang Lee</b> <i>An innovative wax-physisorption-based infrared kinetic imaging for screening of human oral cavity cancer by utilizing infrared microspectroscopy</i>
10.30	<b>Jonathan M. Castro</b> <i>Applications of Synchrotron-based FTIR in Volcanology</i>

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<b>THZ TECHNIQUES</b> <i>Chair: Lawrence G. Carr</i>	
11.20	<b>Enrica Chiadroni</b> <i>The THz radiation source at the SPARC Free Electron Laser</i>
11.40	<b>Petra Probst</b> <i>Synchrotron pulse detection with a <math>YBa_2Cu_3O_{7-\delta}</math> thin film THz detector</i>
12.00	<b>Michele Ortolani</b> <i>Fabrication and Characterization of Quasi-Optical Terahertz Nanorectifiers with Integrated Antennas</i>
12.20	<b>Odeta Limaj</b> <i>Terahertz behavior of Superconducting Slot Antenna Filters</i>

12.40	GROUP PICTURE
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13.00	LUNCH
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	<b>HIGH-RESOLUTION</b> <i>Chair: Yves-Laurent Mathis</i>
14.30	<b>Pascale Roy</b> <i>Toward highly stable Terahertz coherent synchrotron radiation at the synchrotron SOLEIL</i>
14.50	<b>Dominique R.T. Appadoo</b> <i>Capabilities of the Far-IR &amp; High-Resolution Beamline at the Australian Synchrotron</i>
15.10	<b>Brant E. Billingham</b> <i>Challenges and Progress on the Far-Infrared beamline at the Canadian Light Source</i>
15.30	<b>Chris Medcraft</b> <i>Enclosive flow Cooling Cell on the Infrared Far-Infrared &amp; High Resolution at the Australian Synchrotron</i>

15.50	<b>CLOSING</b>
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18.00	<b>BOAT EXCURSION AND SOCIAL DINNER</b>
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Thursday, September 8

9.00	<b>VISIT TO ELETTRA AND FERMI FACILITIES</b>
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