

# Tentative Program

(as of 02/11/2022)

## Thursday November 09, 2023

08:00-08:45	Registration	
08:45-09:00	Opening	
PLENARY – Biomedicine, Biomedical imaging, Disease characterization / Chairperson: Florian Formanek		
09:00-09:30	<b>Katsumasa Fujita</b> (Osaka University, Japan) High-sensitivity Raman imaging of cryofixed biological samples	K
09:30-09:50	<b>Jian Xu</b> (Qingdao Institute of Bioenergy and Bioprocess Technology, China) Ramanome, FlowRACS and RACS-Seq/Culture: functional dissection and mining of microbiomes at single-cell resolution	I
09:50-10:10	<b>Marcus Cicerone</b> (Gatech, USA) Discovering Biology with Broadband Spectroscopic Coherent Raman Imaging	I
10:10-10:55	Coffee Break / Poster Session / Exhibition	
PLENARY – Biomedicine, Biomedical imaging, Disease characterization / Chairperson: K. Fujita		
10:55-11:15	<b>Dana Cialla-May</b> (Leibniz Institute of Photonic Technology, Germany) Surface enhanced Raman spectroscopic (SERS) detection of antibiotics and metabolites in complex biological matrices	I
11:15-11:35	<b>Sophie Lecomte</b> (Univ. Bordeaux-CNRS, France) Raman spectroscopy to probe the amyloid proteins involved in Alzheimer's disease	I
11:35-11:50	<b>Mohamed Elgawish</b> (Korea University, South Korea) A genetically encoded Raman probes for organelle-specific labelling: unleashing the power of Raman microscopy for bioimaging	O
11:50-12:20	<b>Huabing Yin</b> (University of Glasgow, UK) Raman microscopy meets microfluidics: an integrated approach for rapid diagnosis and cell sorting	K
PLENARY – Company talks / Chairperson: Marc Chaigneau		
12:20-12:25	<b>Renata Lewandowska</b> (Digital Surf, France) Recent software developments for full spectral analysis of Raman, IR, cathodoluminescence spectra etc.	O
12:25-12:30	<b>Melanie Leseignoux</b> (Lumibird, France) Lumibird lasers for raman applications	O
12:30-12:35	<b>Sam Lawrence</b> (CytoViva, USA) Multi-Modal Imaging and Analysis: Combining Enhanced Darkfield Hyperspectral Microscopy with Confocal Raman Microscopy	O
12:35-12:40	<b>Katja Holland-Moritz</b> (S.T.Japan-Europe GmbH, Germany)	O
12:40-12:45	<b>Thibault Brulé</b> (HORIBA France, France) Raman at HORIBA : how user experience becomes crucial	O
12:45-13:30	Lunch	
13:30-14:00	Poster Session 1 & Exhibition	
14:00-15:00	PARALLEL SESSION 1 - Advanced materials, Low-dimensional materials - SERS PARALLEL SESSION 2 - Advanced materials, Low-dimensional materials	
15:00-16:30	PLENARY - Novel techniques AI, data	
16:30-17:00	Coffee Break / Poster session / Exhibition	
17:00-19:05	PLENARY - Semiconductors and 2D materials	

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### PARALLEL SESSION 1 - Advanced materials, Low-dimensional materials - SERS / Chairperson: Thomas Bocklitz

14:00-14:15	<b>Graham Rance</b> (University of Nottingham, UK) Host-Guest Chemistry in Boron Nitride Nanotubes: Interactions with Polyoxometalates and Mechanism of Encapsulation	O
14:15-14:30	<b>Yevhenii Havryliuk</b> (Chemnitz University of Technology, Germany) Raman and thermoelectrical study of thermally and flash lamp annealed Cu <sub>2</sub> ZnSnS <sub>4</sub> nanocrystals	O
14:30-14:45	<b>Muhammad</b> (Hefei Institute of Physical Science, Chinese Academy of Science, China) Unmasking Cellular Secrets: SERS-Enhanced Immunological Biomarkers Studies	O
14:45-15:00	<b>Meiling Zheng</b> (Technical Institute of Physics and Chemistry, Chinese Academy of Sciences, China) Surface Enhancement of Raman Scattering (SERS) of Microstructures Fabricated by Femtosecond Laser Optical Lithography	O

### PARALLEL SESSION 2 - Advanced materials, Low-dimensional materials / Chairperson: Hilton B. de Aguiar

14:00-14:15	<b>Nicolas Coca Lopez</b> (CSIC-ICP, Spain) Raman spectroscopy for in-situ characterization of interzeolite conversion during synthesis	O
14:15-14:30	<b>Johanna Brazard</b> (University of Geneva, Switzerland) In situ Raman spectroscopy of crystallization: One crystal nucleation at a time	O
14:30-14:45	<b>Satyen Saha</b> (Banaras Hindu University, India) Raman Spectroscopy: Unveiling Its Versatility as a Scientific Tool	O
14:45-15:00	<b>Alberto Moure</b> (Instituto de Cerámica y Vidrio (CSIC), Spain) Stress dynamics during O-T phase transitions in lead-free KNN-based piezoelectric ceramics studied by Confocal Raman Spectroscopy	O

### PLENARY - Novel techniques AI, data / Chairperson: Philippe Leproux

15:00-15:30	<b>Tamiki Komatsuzaki</b> (Hokkaido University, Japan) On-the-fly Raman microscopy guaranteeing the accuracy of discrimination	K
15:30-15:50	<b>Thomas Bocklitz</b> (Universität Bayreuth, Germany) Photonic Data Science: Data pipelines for modeling of Raman effect related data	I
15:50-16:10	<b>Hilton B. de Aguiar</b> (École Normale Supérieure / CNRS, France) A learning Raman microscope for high-speed imaging: the compressive Raman concept	I
16:10-16:20	<b>Mohammad Bagheri</b> (University of Oulu, Finland) A Large Database of Raman Spectra Created with Optimized Computational Workflow	O
16:20-16:30	<b>Nadezhda Shchedrina</b> (Université Paris-Saclay, France) In Situ Raman Spectroscopy during Annealing for Calculation of the Activation Energy Distribution in Densified Silica Glass	O

16:30-17:00 **Coffee Break / Poster session / Exhibition**

### PLENARY - Semiconductors and 2D materials / Chairperson: Marc Chaigneau

17:00-17:30	<b>Angela R. Hight Walker</b> (NIST, USA) Novel Instrumentation for 2D Characterization: Combined Magneto-Optical Magneto-Transport	K
17:30-17:45	<b>Thomas Nuytten</b> (IMEC, Belgium) Tunable Raman Selectivity for Semiconductor Metrology	O
17:45-18:00	<b>Thibaut Meyer</b> (CEA-Leti, France) Full wafer-scale characterization method for 2D materials	O
18:00-18:30	<b>Javier Aizpurua</b> (CFM/CSIC-UPV/EHU-DIPC, Spain) Optomechanical approach to Surface-Enhanced Raman Spectroscopy	K
18:30-18:45	<b>Julien Chaste</b> (c2N, France) Extreme heat and strain in 2D material with Raman spectroscopy	O
18:45-19:05	<b>Otakar Frank</b> (J. Heyrovsky Institute of Physical Chemistry, Czech Republic) (Nano)spectroscopic fingerprints of strong interactions between 2D layers and their substrate	I

19:05

End of day 1

## Friday November 10, 2023

PLENARY - Food safety, microplastics / Chairperson: Vartkess Apkarian		
09:00-09:20	<b>Silke Christiansen</b> (Fraunhofer-Institut für Keramische Technologien und Systeme IKTS, Germany) The interplay of spontaneous and stimulated Raman spectroscopy, high-resolution microscopies and the use of machine learning methods in the assessment of the impact of micro- & nano-plastics on human / animal health	I
09:20-09:35	<b>George Sarau</b> (Fraunhofer Institute for Ceramic Technologies and Systems IKTS, Germany) Chemical Identification, Localization, and Counting of Ultrafine Particles in Complex Biological Matrices	O
09:35-09:50	<b>Marie-Hélène Ropers</b> (INRAE, France) SEM and Raman analysis in a single chamber for the analysis of the environmental contamination by nano- and microplastics	O
09:50-10:05	<b>Tiril Aurora Lintvedt</b> (Nofima, Norway) Inline Raman Spectroscopy for Characterization of an Industrial Poultry Raw Material Stream	O
PLENARY - Energy and environment / Chairperson: Vartkess Apkarian		
10:05-10:20	<b>Raphael Ramos</b> (CEA, France) Operando Raman spectroscopy for hydrogen energy storage	O
10:20-10:35	<b>Ahmed Omran</b> (UNICAEN-LCS-CNRS, France) Climate-Resilient Technologies: Adapting Methane Hydrate Transformations to Moderate Thermodynamic Conditions	O
10:35-11:05	<b>Coffee Break / Poster Session / Exhibition</b>	
Tip & Surface Enhanced Raman Spectroscopy / Chairperson: Javier Aizpurua		
11:05-11:35	<b>Bin Ren</b> (Xiamen University, China) The road to the successful electrochemical tip-enhanced Raman spectroscopy	K
11:35-11:50	<b>Rostislav Bukasov</b> (Nazarbayev University, Kazakhstan) Al foil and silicon vs Gold Film: when more affordable SERS substrates may compete with gold film substrates	O
11:50-12:20	<b>Vartkess Apkarian</b> (University of California, Irvine, USA) Direct Wiring of Photons Into Molecules: TERS in the ANF	K
12:20-12:35	<b>Sebastian Heeg</b> (Humboldt-Universität zu Berlin, Germany) Surface-Sensitive and Bulk-Suppressed Raman Scattering by Transferable Nanoporous Plasmonic membranes	O
12:35-12:50	<b>Maria Cristina Gamberini</b> (Università di Modena e Reggio Emilia, Italy) Synthesis of silver nanoparticles used as SERS Raman substrate, analysis of various organic samples and first tests on micro plastics	O
12:50-13:05	<b>Igor Chourpa</b> (University of Tours, NMNS, France) Novel biocompatible nanoprobe for multimodal optical imaging via SERS and fluorescence effects	O
13:05-13:20	<b>Lluis F. Marsal</b> (Universitat Rovira i Virgili, Spain) Annealed gold nanoparticles on nanostructured aluminum substrates as a low-cost SERS platform	O
13:20-14:00	<b>Lunch &amp; Poster Session / Exhibition</b>	
14:00-14:30	<b>Poster Session 2 &amp; Exhibition</b>	
14:30-15:10	<b>Parallel Sessions 1 &amp; 2 (Students)</b>	
15:10-16:05	<b>PLENARY - Novel techniques</b>	
16:05-16:20	<b>Coffee Break</b>	
16:20-17:35	<b>PLENARY – Pharmaceuticals</b>	
17:35-18:05	<b>PLENARY – Harmonisation</b>	

## Friday November 10, 2023

PARALLEL SESSION 1 – Students / Chairperson: Otakar Frank		
14:30-14:40	<b>Amro Sweedan</b> (Ben-Gurion university, Israel) Bioinspired Evolutionary Algorithm-Optimized Monocrystalline Gold Double Wire Gratings as a Novel SERS Sensing Platform	O
14:40-14:50	<b>Simone Melesi</b> (Politecnico di Milano, Italy) The role of Raman spectroscopy in the investigation of the $\pi$ -conjugation properties of halogenated Carbon Atomic Wires	O
14:50-15:00	<b>Michael Georg Stadt</b> (KAI GmbH/TU Wien, Austria) In-situ Raman Spectroscopy of Defined Oxide Layers in an Electrochemical Solid-State Setup	O
15:00-15:10	<b>Aymen Mahmoudi</b> (C2N, France) Direct imaging of band structure for cvd grown rhombohedral-stacked bilayer wse2 using nanospot angle-resolved photoemission	O
PARALLEL SESSION 2 – Students / Chairperson: Sophie Lecomte		
14:30-14:40	<b>Nick Sidney Lemberger</b> (University of Münster, Germany) A pixel-by-pixel correcting autobalanced detector for SRS microscopy	O
14:40-14:50	<b>Kristin Wallmeier</b> (University of Münster, Germany) Single low-noise fiber-based light source for FM SRS	O
14:50-15:00	<b>Hao Lei Dai</b> (Tsinghua university, China) Enhanced Double Resonance Raman Scattering in Multilayer Graphene with Broadband Coherent Anti-Stokes Raman Spectroscopy	O
15:00-15:10	<b>Yujin Wang</b> (Tsinghua university, China) Van Hove singularity modulation of phonon transport in Twisted Bilayer Graphene	O
PLENARY - Novel techniques / Chairperson: : Tamiki Komatsuzaki		
15:10-15:30	<b>Hideaki Kano</b> (Kyushu University, Japan) CARS molecular fingerprinting using a supercontinuum light source	I
15:30-15:45	<b>Laureen Coic</b> (Laboratoire Avancé de Spectroscopie pour les Interactions, la Réactivité et l'Environnement (LASIRE), France) Accelerating confocal Raman microscopy by capturing Essential Information in the Fourier Domain (EIFD)	O
15:45-16:05	<b>Philippe Leproux</b> (Université de Limoges, France) Multiplex CARS microspectroscopy: advances in instrumentation, data analysis and applications	I
16:05-16:20	<b>Coffee Break</b>	
PLENARY – Pharmaceuticals / Chairperson - igor Chourpa		
16:20-16:50	<b>Michaela Poth</b> (Roche, Germany) RAMAN Spectroscopy: Chances for bioprocessing and pharmaceutical manufacturing	K
16:50-17:05	<b>Malvina Orkoula</b> (University of Patras, Greece) Pharmaceutical and Biomedical Applications of Raman Spectroscopy	O
17:05-17:20	<b>Christos Kontoyannis</b> (FORTH/ICE-HT, Greece) Searching for micro-Raman LoD: The case of Tiotropium Br in Spiriva and Braltus formulations	O
17:20-17:35	<b>Dimitrios Tsikritsis</b> (National physical laboratory, UK) Measuring drug delivery across the skin: challenges and opportunities	O
PLENARY – Harmonisation / Chairperson: Marc Chaigneau		
17:35-17:50	<b>Raquel Portela</b> (CSIC, Spain) Raman characterisation: FAIRness and relevance	O
17:50-18:05	<b>María Fernández Álvarez</b> (Institute of Ceramics and Glass (ICV-CSIC), Spain) How to get Raman spectra harmonization from twinned devices	O
18:05	<b>Closing and RamanFest2024 announcement</b>	