

Programme Schedule

10TH DECEMBER 2024

8.30 - 9.00	REGISTRATION & MORNING COFFEE
-------------	-------------------------------

Amphithéâtre Chaudron

9.00 - 9.15	OPENING CEREMONY Anna Baldycheva, STEMM Global, University of Exeter, INNANO Ltd. Giuseppina Padeletti, Institute of Nanostructured Materials, CNR
9.15 - 10.35	2D Materials I
9.15 - 9.35	Itai Epstein (Tel Aviv University, Israel) <i>"Light-matter interaction in 2D semiconductors"</i>
9.35 - 9.55	Slaven Garaj (National University of Singapore, Singapore)
9.55 - 10.15	Habib Rostami, Emmanule Cappelluti and Federico Cilento (University of Bath, UK) <i>"Dichroism and Kerr rotation in bulk WSe₂"</i>
10.15 - 10.35	Antonio Di Bartolomeo (University of Salerno, Italy) <i>"2D Molybdenum Disulfide and Black Phosphorus in Field-Effect Transistors"</i>
10.35 - 10.55	COFFEE BREAK & NETWORKING
11.00 - 13.00	Academia to Business: Spinning out Innovations from Research Labs
11.00 - 12.00	PLENARY TALK: <i>"Commercializing Nanomedicine: 30,000 Spinal Implants in Humans with No Failures"</i> Thomas Webster (Hebei University of Technology, China)
12.00 - 13.00	Academia to Business Panel Discussion (Q&A)
13.00 - 14.00	LUNCH

Bibliothèque

14.00 - 15.00	PLENARY TALK: <i>"From hyper-Rayleigh to hyper-Raman optical activity"</i> Ventsislav Valev (University of Bath, UK)
15.00 - 15.15	COFFEE BREAK & NETWORKING
15.15 - 16.15	NanoPhotonics I
15.15 - 15.35	<u>Louise Bradley</u> , H. Hajian, M. Proffit, P. Landais (Trinity College Dublin, Ireland) <i>"Electrically driven reprogrammable metasurface design for NIR beamsteering"</i>

15.35 - 15.55	Ivan Fernandez-Corbaton (Karlsruher Institut für Technologie, Germany) <i>"Computing the optical response of molecular materials: From nano to device scales"</i>
15.55 - 16.15	Emilija Petronijevic (Sapienza University of Rome, Italy) <i>"Photo-acoustic spectroscopy with widely tuneable laser: resonances, spatial absorption mapping and circular dichroism in nanostructures"</i>

Galerie

17.00 - 19.00 17.00 - 18.00	WELCOME WINE RECEPTION POSTER SESSION
P1	Achanai Buasri, (Silpakorn University, Thailand) <i>"Preparation and characterization of CO₂ adsorbent from spent coffee ground"</i>
P2	Ainur Zhambolova (Institute of Combustion Problems, Kazakhstan) <i>"Functionalization of nanosilica particles to obtain a bitumen modifier"</i>
P3	Aleksandrs Dutovs (University of Latvia, Latvia) <i>"Self-assembled plasmonic gold nanoparticle arrays on hybrid Al/PAAO nanostructures for formaldehyde sensing in wastewater"</i>
P4	Aliya Kenzhegaliyeva (Institute of Combustion Problems, Kazakhstan) <i>"Modification of bitumen with nanostuctural char from pyrolysis of lemon peel waste"</i>
P5	Ayagoz Bakkara (Institute of Combustion Problems, Kazakhstan) <i>"High-temperature SHS thermal insulators based on pre-activated diatomite"</i>
P6	Bakhtiyar Sadykov (Institute of Combustion Problems, Kazakhstan) <i>"Effect of mechanochemical treatment of aluminum powders on the combustion of SHS-compositions"</i>
P7	Charles Downing (University of Exeter, United Kindgom) <i>"Double photon charging of a quantum battery"</i>
P8	<u>Eftychia Martino</u> , Christos Chatziliias, Alexandros Katsaounis (University of Patras, Greece) <i>"Effect of Carbon Support on the Performance of Pt-based Anodes for Bio-Alcohol Fuel Cells"</i>
P9	Gaukhar Smagulova (Satbayev University, Kazakhstan) <i>"Development and Characterization of Nanocomposites Based on Magnetite, MXene and Activated Carbon for the Adsorption of Pb Ions from Aqueous Solutions"</i>
P10	Ghazal Shineh (The University of Sydney, Australia) <i>"Hydrogel Nanocoating on Bone Implants via Nanoscale Plasma-Activated Technology"</i>
P11	Hüma Yılmaz (University of Gazi, Sudan) <i>"Development of a fluorescent sensor using surface imprinted polymers for specific recognition of 5-fluorouracil"</i>
P12	Juris Prikulis (University of Latvia, Latvia) <i>"Nanoporous anodic aluminum oxide - gold plasmonic substrates for the optical detection of protein biomarkers"</i>
P13	Manal Safar (University of Exeter, United Kingdom) <i>"Graphene electronics"</i>
P14	Najib Hamisu Umar (National Agency for Science and Engineering Infrastructure, Nigeria) <i>"Fabrication and Characterization of Electrospun PAni/PVA Nanofiber Composites"</i>
P15	Natalia Fijol (Nobula 3D, Sweden) <i>"Advanced glass fabrication and 3D printing using CO₂-laser"</i>

P16	Nilesh Gajanan Bajad (Indian Institute of Technology, India) <i>"Development of donor-acceptor architecture type benzothiazole-based theranostic fluorescent probes for Alzheimer's disease"</i>
P17	Sara Stolfi (Università di Pavia/CNR-IOM Istituto Officina dei Materiali, Italy) <i>"Mechanism of CO Oxidation on High Entropy Spinel"</i>
P18	Taisiya Latypova (SkyLab AG, Switzerland) <i>"The biodegradable technology based on shikimic acid and L-arginine for regeneration of wool fibers and color retention"</i>
P19	Vorrada Loryuenyong (Silpakorn University, Thailand) <i>"Microwave synthesis of Dy³⁺, Sm³⁺ co-doped recycled waste glass"</i>
P20	Xuejuan Cui (Technological and Higher Education Institute of Hong Kong, China) <i>"Synthesis and evaluation of transition metal oxides (TMOs) into carbon nanofibers (CNFs) as anode materials for lithium-ion batteries"</i>
P21	Yeligay Segizbay (Nazarbayev University, Kazakhstan) <i>"Optimization of Material Properties for Enhanced Performance of 1D MEMS Oscillators"</i>
P22	Yerdos Ongarbayev (Institute of Combustion Problems, Kazakhstan) <i>"Modification of Bitumen with Nanostructured Carbonized Rice Husk"</i>
P23	Yerzhan Imanbayev (Institute of Combustion Problems, Kazakhstan) <i>"Production of nanosized silica particles for bitumen modification"</i>
P24	Yuto Akimoto (Tohoku University, Japan) <i>"Fiber-based soft actuators via thermal drawing"</i>

11TH DECEMBER 2024

8.30- 9.00 REGISTRATION & MORNING COFFEE

Amphithéâtre Chaudron

9.00 - 10.45	Innovations in Energy: Advancements in Nanoscience and Photovoltaics
9.00 - 9.30	Ibrahim Yehia (Triangle R&D Centre, Israel) <i>"Advances in Agrivoltaics"</i>
9.30 - 9.50	Gideon Segev (Tel Aviv University, Israel) <i>"Ratchet-based ion pumps for selective ion separations"</i>
9.50 - 10.10	Hani Barhom (Tel Aviv University, Israel) <i>"Organic and Hybrid Materials for Energy Conversion and Harvesting"</i>
10.10 - 10.30	Lioz Etgar (Hebrew University of Jerusalem, Israel) <i>"Chirality and piezoelectricity in low dimensional perovskite and fully printable solar cells"</i>
10.30 -10.45	Gilbert Daniel Nessim (Bar Ilan University, Israel) <i>"One-step synthesis of single atom catalysts (SACs) on nanocarbons using thermal delamination: a new paradigm for high performance, binder-free, electrodes for water splitting"</i>
10.45 - 11.00	COFFEE BREAK & NETWORKING

11.00 - 12.00	PLENARY TALK: "Are four small brains as good as one big one? a computing fabrics perspective" Yoel Fink (Massachusetts Institute of Technology, USA)
12.00 - 13:00	Smart, Functional Fibers and Textiles I
12.00 - 12.20	Yuanyuan Guo (Tohoku University, Japan) <i>"Thermally-drawn fiber technologies with sensing and actuation capabilities for neuroscience and healthcare applications"</i>
12.20 - 12.40	Fabien Sorin (Ecole Polytechnique Fédérale de Lausanne, Switzerland) <i>"Liquid Metal-Based Soft Electronic Fibers and Textiles"</i>
12.40 - 13.00	Burak Temelkuran (Imperial College London, UK) <i>"Thermally Drawn Catheters for Endovascular Interventions"</i>
13.00 - 14.00	LUNCH
14.00 - 16.00	Smart, Functional Fibers and Textiles II
14.00 - 14.20	Alexander Gumennik (Indiana University, USA) <i>"Micro-Architected Monofilaments for Smarter Telecommunication and Biomedicine"</i>
14.20 - 14.40	Amit Sitt (Tel Aviv University, Israel) <i>"Unique Shape-Morphing Behaviors in Hierarchical Responsive Microfiber Architectures"</i>
14.40 -15.00	Michael Fokine (KTH Royal Institute of Technology, Sweden) <i>"Advanced Glass Fabrication and 3D Printing using CO2-laser"</i>
15.00 -15.20	Sylvain Danto (University of Bordeaux, France) <i>"Recent progresses in the fabrication of multimaterial fibers using thermoplastic polymers and glasses with intermediate Tg"</i>
15.20 -15.35	Viktor Filatov (SkyLab AG, Switzerland) <i>"Towards functional textiles using laundry detergents: the novel sustainable technologies for improvement of appearance, color, elasticity, and regeneration of microdamages"</i>
15.35 - 15.50	Merve Gocke (Indiana University, USA) <i>"Selective stress/proximity sensing by time domain reflectometry in a deformable fiber-antenna"</i>
15.50 - 16.05	Hassan Alshahrani (Najran University, Saudi Arabia) <i>"Development of Novel 3D Printed Core-Shell Polymeric Composite"</i>
16.05 - 16.25	COFFEE BREAK & NETWORKING SESSION
16.25 - 18.00	THz Optoelectronics and Photonics
16.25 - 16.45	Giacomo Scalari (ETH Zürich, Switzerland) <i>"An active planarized platform for coherent THz optics: from combs to on-chip WDMs"</i>
16.45 - 17.05	Masayoshi Tonouchi (Osaka University, Japan) <i>"Terahertz Emission Spectroscopy on GaN-based Superlattices"</i>
17.05 -17.25	Jessica Boland (The University of Manchester, UK) <i>"Terahertz and topology: exploring optoelectronic properties of topological insulators via terahertz spectroscopy and microscopy"</i>
17.25 -17.45	David Citrin (Georgia Institute of Technology, USA) <i>"The Gauss chain: A new quasi-periodic lattice and its potential quantum mechanical and electromagnetic realizations"</i>
17.45 - 18.00	Etienne Cardi (LPENS, France) <i>"TeraHertz generation from femtosecond laser-induced micro-plasma"</i>

Amphithéâtre Moissan

12:00 - 13:15	NanoPhotonics II
12.00 - 12.20	Sebastian Klemmt (University of Würzburg, Germany)
12.20 - 12.40	Bruce Ou (University of Southampton, UK) <i>"Meta-scope: metalens-based compact multifunctional microscope"</i>
12.40 - 13.00	Pavel Ginzburg (Tel Aviv University, Israel) <i>"Optically Responsive Vaterite for Drug Delivery Applications"</i>
13.00 - 13.20	Maria Kafesaki (University of Crete, Gr) <i>"Controllable circular polarization lasing based on chiral metamaterials"</i>
13.20 - 14.15	LUNCH
14.15 - 16.05	Microscopy and Microspectroscopy
14.15 - 14.35	Sylvie Roke (Ecole Polytechnique Fédérale de Lausanne, Switzerland) <i>"A magic wand for material characterization"</i>
14.35 - 14.55	Hiromi Okamoto (Institute for Molecular Science, Japan) <i>"Imaging Chiral Optical Fields in Nano-/Micro-Structured Materials"</i>
14.55 - 15.15	Kevin MacDonald (University of Southampton, UK) <i>"Picometrology with topologically structured light"</i>
15.15 - 15.35	Hilton De Aguiar (ENS, France) <i>"A few for more: high-speed compressive Raman imaging"</i>
15.35 - 15.50	Jan Přibyl (Masaryk University, Czechia) <i>"Advanced characterization of nano and biomaterials using AFM and Raman microscopy"</i>
15.50 - 16.05	Ayodele Olomieja (Ogun State Institute of Technology, Nigeria) <i>"Synthesis and Photocatalytical Degradation of Pharmaceutical Pollutants using Green Synthesized Nanocomposite"</i>
16.05 - 16.25	COFFEE BREAK & NETWORKING SESSION
16.25 - 18.00	New Materials Developments
16.25 - 16.45	Simona Achilli (University of Milan, Italy) <i>"Theoretical and experimental analysis of the pivotal role of the substrate in the growth of ordered 2D structures"</i>
16.45 - 17.05	Jonas Johansson (Lund University, Sweden) <i>"Heteroepitaxial Growth Modes Revisited"</i>
17.05 - 17.25	Bat-El Pinchasik (Tel Aviv University, Israel) <i>"Responsive Fluidics: The liquid Analogue of Electric Circuits"</i>
17.25 - 17.40	Mohamad Danial Shafiq (Universiti Sains Malaysia, Malaysia) <i>"Interparticle Interactions Between Carbon in Oil: Effect of Poly-isobutylene-Ionic-Liquid Dispersants"</i>
20.00 -	GALA DINNER

12TH DECEMBER 2024

9.30 - 10.00 REGISTRATION & MORNING COFFEE

Salle 6

10.00 - 11.10	Quantum Optics and Quantum Metrology I
10.00 - 10.20	Andrey Sukhorukov (Australian National University, Australia) <i>"Generating Optically Tunable Entangled Photon Pairs From Metasurfaces"</i>
10.20 - 10.40	Michael Vanner (Imperial College London, UK) <i>"Brillouin optomechanics in whispering-gallery-mode microresonators: Strong coupling, the lasing transition, and single-phonon addition and subtraction operations"</i>
10.40 - 10.55	Kseniia Mamaeva (Trinity College Dublin, Ireland) <i>"Single gold Bipyramid coupled with quantum dot"</i>
10.55 - 11.10	Charles Downing (University of Exeter, United Kingdom) <i>"Double photon charging of a quantum battery"</i>

Amphithéâtre Moissan

11.00 - 12.00	Optical Systems and Networks
11.00 - 11.20	Toms Salgals (Riga Technical University, Latvia) <i>"Kerr optical frequency comb (OFC) light sources for telecommunication applications"</i>
11.20 - 11.40	Eugenio Maggolini (Johannes Kepler University Linz, Austria) <i>"Quantum nonlinear optics in exciton-polariton circuits"</i>
11.40 - 12.00	Inga Brice (University of Latvia, Latvia) <i>"Tailoring whispering gallery mode resonator for wide range of potential applications"</i>
12.00 - 12.20	Frederic Gardes (University of Southampton, UK) <i>"Advancing Silicon Nitride Photonics for Next-Generation Systems"</i>
12.20 - 13.00	LUNCH
13.00 - 14.00	THz Optoelectronics and Photonics
13.00 - 13.20	SaeJune Park (Queen Mary University of London, UK) <i>"Free-space and on-chip terahertz biosensing and other applications"</i>
13.20 - 13.40	Anna Tasolamprou (National and Kapodistrian University of Athens, Greece) <i>"THz graphene-based metasurfaces for wave manipulation"</i>
13.40 - 14.00	Eve Ammerman (Empa, Switzerland) <i>"Ultrafast Terahertz Scanning Tunneling Microscopy of Single Atomic Defects"</i>
14.00 - 14.15	Sara Cibella (IFN CNR, Italy) <i>"Optical beatnote detection of a portable THz QCL comb by direct microwave mixing onto an Hot-electron bolometer"</i>
14.15 - 14.30	COFFEE BREAK & NETWORKING SESSION

14.30 - 16.30	Quantum Optics and Quantum Metrology II
14.30 - 14.50	Ferruccio Renzoni (University College London, UK) <i>"Electromagnetic Induction Imaging with Atomic Magnetometers: Coming of Age"</i>
14.50 - 15.10	Vladimir Antonov (Royal Holloway University of London, UK) <i>"Development of a new quantum device: the Bloch transistor"</i>
15.10 - 15.30	Alina Karabchevsky (Ben Gurion University of Negev, Israel)
15.30 - 15.50	Ortwin Hess (Trinity College Dublin, Ireland) <i>"Nanoplasmonic Architectures for Room-Temperature Quantum Nanophotonics"</i>
15.50 - 16.10	Takis Kontos (ENS, France) <i>"Quantum sensing of axion dark matter"</i>
16.10 - 16.30	Marianna D'Amato (Sorbonne University, France) <i>"Room-temperature integrated single-photon sources based on solid-state quantum emitters coupled to optical nanofibers"</i>

Amphithéâtre Chaudron

12.00 - 12.50	LUNCH
12.50 - 14.30	2D MATERIALS
12.50 - 13.10	Vladimir Dyakonov (University of Würzburg, Germany) <i>"Coherent Control and Sensing Applications of the Color Centers in hexagonal Boron Nitride"</i>
13.10 - 13.30	Hao Xu (University of Electronic Science and Technology of China, China) <i>"2D TMDs: Large-Scale Growth, Integrated Optoelectronics and Beyond"</i>
13.30 - 13.50	Nicholas Bergeal (ESPCI Paris, France) <i>"Superconducting oxide interfaces"</i>
13.50 - 14.10	Anastasios D. Koulouklidis (Regensburg Center for Ultrafast Nanoscopy, Germany) <i>"Magnetic Control of Quasi-1D Excitons and Coulomb Correlations in CrSBr"</i>
14.10 - 14.30	Igor Rozhansky (University of Manchester, UK) <i>"2D van der Waals Magnets as a promising host for strong-correlated phenomena"</i>
14.30 - 14.45	COFFEE BREAK & NETWORKING SESSION
14.45 - 15.40	Sensors and Spectroscopy: Materials and Methodologies
14.45 - 15.05	Haider Butt (Khalifa University, United Arab Emirates) <i>"3D Printed Multi-material Nanocomposite Contact Lenses"</i>
15.05 - 15.25	Yossi Rosenwaks (Tel Aviv University, Israel) <i>"Electronic Nose Based on a Single Silicon Gas Sensor"</i>
15.25 - 15.40	Muhammad Ameerullah Sahudin (Universiti Malaya, Malaysia) <i>"Schiff Base Complex: Fluorescence Chemosensor for Food Safety Monitoring"</i>
15.40 - 16.50	Nanomaterials in Biology and Medicine
15.40 - 16.00	Francis Rey Cortes (Universitat Jaume I, Spain) <i>"Pulsed laser fragmentation synthesis of carbon quantum dots (CQDs) for the non-enzymatic glucose detection"</i>

16.00 - 16.20	Yon Ju-Nam (Swansea University, UK) <i>"Green synthesis and spectroscopic characterisation of positively charged gold nanoparticles and their use in biomedical applications"</i>
16.20 - 16.35	Nur Hidayatul Nazirah Kamarudin (Universiti Kebangsaan Malaysia, Malaysia) <i>"Development of Smart Anti-Microbial Drug Releasing Dental Implant"</i>
16.35 - 16.50	Gangaraju Gedda (Chung-Ang University, South Korea) <i>"Assessment of function of fluorescent carbon dot's role in the male Reproductive system"</i>
17.00 - 18.00	PLENARY TALK: "Tailoring Carbon Nanoparticles for drug delivery" Silvia Giordani (Dublic City University, Ireland)
18.00 - 19.00	WINE RECEPTION & NETWORKING

13TH DECEMBER 2024

8.30 - 9.00	REGISTRATION & MORNING COFFEE
-------------	--

Bibliothèque

9.00 - 10.00	PLENARY TALK: "Preserving the Past, Protecting the Future: A Cross-disciplinary Review of Recent Innovations in Materials for Safeguarding Heritage in a Changing Climate" Giuseppina Padeletti (Institute of Nanostructured Materials, CNR Italy)
10.00 - 12.30	Characterisation Methods in Art and Heritage
10.00 - 10.20	Daniel Caurant (CNRS, France) <i>"Several investigations on glazes on ceramics from Antiquity to the present day"</i>
10.20 - 10.40	Gilles Wallez (Sorbonne University, France) <i>"Written in (lead) white: the chemical skills of the masters of the Renaissance painting"</i>
10.40 - 11.00	Maria Pia Casaletto (CNR · Institute of Nanostructured Materials ISMN, Italy) <i>"A methodological approach to the conservation of marine outdoor bronze surfaces"</i>
11.00 - 11.20	Koen Janssens (University of Antwerp, Belgium) <i>"Characterization of painted works of art from the macro to the nanoscale for the benefit of art historians and art conservators"</i>
11.20 - 11.40	Sorin Hermon (Cyprus Institute, Cyprus) <i>"Towards an open, cross-disciplinary Cultural Heritage – first steps"</i>
11.40 - 12.00	Gabriella Di Carlo (National Research Council, Italy) <i>"Sustainable conservation of metal objects: innovative materials from waste and renewable sources"</i>
12.00 - 12.20	Luca Totorà (Roma Tre University, INFN, Italy) <i>"Multiscale Chemical Imaging to Decipher Degradation Processes and Reconstruct Artistic Narratives in Cultural Heritage"</i>
12:30- 12.45	Closing and Award Ceremony

13.00 - 14.00	WOMEN in STEMM LUNCH
14.00 -	SOCIAL PROGRAMME