

## TNT2022 TENTATIVE PROGRAM

(as of 06/10/2022)

DAY 1		Monday October 03, 2022
09:00	OPENING - WELCOME CEREMONY	
09:45 KEYNOTE	<b>Klaas-Jan Tielrooij</b> (ICN2, Spain)	<i>Quantum materials for terahertz nonlinear photonics</i>
10:15	COFFEE BREAK	
11:30 KEYNOTE	<b>Pablo Ordejon</b> (ICN2, Spain)	<i>Towards first-principles simulations of electrochemical processes at the nanoscale</i>
12:00 PLENARY	<b>Andrea Ferrari</b> (Cambridge Graphene Centre, University of Cambridge, UK)	<i>Layered Materials Photonics and Optoelectronics</i>
12:45	LUNCH BREAK	
14:00	POSTER SESSION	
14:30 KEYNOTE	<b>Nunzio Denora</b> (Università degli studi di Bari Aldo Moro, Italy)	<i>Microfluidics technology for the production of solid lipid nanoparticles</i>
15:00 INVITED	<b>Vladimir Mirsky</b> (Brandenburg University of Technology Cottbus - Senftenberg, Germany)	<i>Wide-field surface plasmon microscopy: a new tool for ultrasensitive analytics of natural and artificial nanoparticles as well as for nanoelectrochemistry</i>
15:20 INVITED	<b>Lluís F. Marsal</b> (URV, Spain)	<i>Tunable Tamm Plasmon Resonance based on Nanoporous Anodic Alumina Photonic Crystals</i>
15:40 ORAL	<b>Konrad Eiler</b> (Universitat Autònoma de Barcelona, Spain)	<i>Highly nanoporous Ni-based electrocatalysts by electrodeposition</i>
15:55 ORAL	<b>Ndrina Limani</b> (CEA-Saclay, France)	<i>ORR study of a Pt-free catalyst with RRDE, SECM and SECCM, from macro to nano-scale measurements</i>
16:10	COFFEE BREAK	
16:50 KEYNOTE	<b>Virgilio Mattoli</b> (IIT, Italy)	<i>Nanometric-thin freestanding polymeric films for soft micro-electronics</i>
17:20 INVITED	<b>Salvo Mirabella</b> (Università di Catania, Italy)	<i>Green nanomaterials engineering for water splitting reactions</i>
17:40 INVITED	<b>Aysegul Uygun Oksuz</b> (Suleyman Demirel University, Turkey)	<i>Radio Frequency Plasma Modification of Nanomaterials for Potential Applications</i>

09:00 KEYNOTE	<b>Monica Lira-Cantu</b> (ICN2, Spain) <i>MXenes as transport layer materials for Halide perovskite Solar Cells</i>
09:30 KEYNOTE	<b>Vincenzo Palermo</b> (CNR-ISOF, Italy) <i>Using 2-dimensional materials in a 3-dimensional world: graphene composites for batteries, filters and aerospace</i>
10:00 KEYNOTE	<b>Vladimir Falko</b> (National Graphene Institute, University of Manchester, UK) <i>Optically active self-organised quantum dots in marginally twisted MoSe<sub>2</sub>/WSe<sub>2</sub> and MoS<sub>2</sub>/WS<sub>2</sub> bilayers</i>
10:30	COFFEE BREAK
11:00 KEYNOTE	<b>Aravind Vijayaraghavan</b> (The University of Manchester, UK) <i>Graphene based electromechanical sensors</i>
11:30 INVITED	<b>Chiara Zanardi</b> (Università Cà Foscari di Venezia, Italy) <i>Graphene-Paper Electrodes as New Platforms for Amperometric Biosensing</i>
11:50 KEYNOTE	<b>Sibel A. Özkan</b> (Ankara University, Turkey) <i>Nanosensors: Carbon Based Nanostructured Materials for Sensitive Monitoring of Pharmaceuticals</i>
12:20 KEYNOTE	<b>Cinzia Casiraghi</b> (University of Manchester, UK) <i>Defect free and water-based 2D materials-based inks: from printed electronics to biomedical applications</i>
12:50	LUNCH BREAK
14:00	POSTER SESSION
14:30 KEYNOTE	<b>Stephan Roche</b> (ICREA/ICN2, Spain) <i>Amorphous 2D Materials for Applications in Nanoelectronics and Neuromorphic Computing</i>
15:00 KEYNOTE	<b>Sergio O. Valenzuela</b> (ICREA-ICN2, Spain) <i>Room-temperature charge to spin interconversion in proximitized graphene</i>
15:30 KEYNOTE	<b>Adrian Bachtold</b> (ICFO, Spain) <i>Manipulating nanotube mechanical resonators with single-electron tunneling</i>
16:00	COFFEE BREAK
17:00 KEYNOTE	<b>Coskun Kocabas</b> (The University of Manchester, UK) <i>Topological control of light with graphene devices</i>
17:30 INVITED	<b>Egon Pavlica</b> (University of Nova Gorica, Slovenia) <i>In-plane time-of-flight photoconductivity of two-dimensional materials and their composites with organic semiconductors</i>
17:50 INVITED	<b>Theodosios Giousis</b> (University of Ioannina, Greece) <i>Functional hybrids based on 2D materials beyond graphene</i>
18:10 KEYNOTE	<b>Luisa Torsi</b> (Università degli Studi di Bari Aldo Moro, Italy) <i>Single-molecule reliable detections with a large-area electronic interface</i>

09:00 KEYNOTE	<b>Jordi Arbiol</b> (ICREA / ICN2, Spain) <i>2D Nanostructures at Atomic Scale: From Energy an Environmental Applications to Quantum Devices</i>
09:30 INVITED	<b>Pinar Kara Kadayıfçılar</b> (EGE University, Turkey) <i>Electrochemical Aptasensors for Diagnostic Analysis</i>
09:50 INVITED	<b>Jahir Orozco Holguin</b> (Universidad de Antioquia, Colombia) <i>Nanobioprobes and nanobioconjugates for diagnosis and treatment of diseases</i>
10:10 INVITED	<b>Fabio Di Francesco</b> (University of Pisa, Italy) <i>Electrochemical sensors exploiting innovative bioreceptors and biosensing strategies</i>
10:30	COFFEE BREAK
11:00 INVITED	<b>Bergoi Ibarlucea</b> (TU Dresden, Germany) <i>Hardware- and software-based selectivity enhancement of gas nanosensors</i>
11:20 INVITED	<b>Ulku Anik</b> (Mugla Sitki Kocman University, Turkey) <i>Nanomaterial Included Biosensors as POC Diagnostic Systems</i>
11:40 INVITED	<b>Mamas Prodromidis</b> (University of Ioannina, Greece) <i>BioPoC: A Novel Biosensing Technology Based on Responsive Polymers and a Low-Cost Transducing Technology</i>
12:00 INVITED	<b>Erhan Zor</b> (Necmettin Erbakan University, Turkey) <i>Trends in Nanomaterials-Enriched Chiral Sensors</i>
12:20 INVITED	<b>Majlinda Vasjari</b> (University of Tirana, Albania) <i>Surfactant modified carbon based platform for imunosensor development</i>
12:40 ORAL	<b>Albana Veseli</b> (University of Prishtina, Republic of Kosovo) <i>Preparation of An Efficient and Selective Sensor Based on Carbon Electrodes Modified with TiO2 Nanoparticles and Carbon Nanomaterial's for Macrolide Electrochemical Quantification</i>
13:00 ORAL	<b>Nurgul Karadas</b> (University of Health Sciences, Turkey) <i>Sensitive Analysis of Antianemi Drug: Roxadustat by Electrochemical Techniques</i>
13:15	LUNCH BREAK
14:00	POSTER SESSION
14:30 INVITED	<b>Alfredo de la Escosura-Muñiz</b> (University of Oviedo, Spain) <i>Electrochemical biosensing using nanochannels: from the stochastic sensing to the use of nanoporous membranes</i>
14:50 INVITED	<b>Kledi Xhaxhiu</b> (University of Tirana, Albania) <i>Elastic composite photo-chromatic sensors with micro and nano mixed valence inorganic fillers</i>
15:10 ORAL	<b>Ivan Bobrinetskiy</b> (Biosense Institute, Serbia) <i>Optical and electronic sensing of small molecules by aptamer-modified graphene</i>
15:25 ORAL	<b>Imer Sadriu</b> (University of Prishtina, Republic of Kosovo) <i>Molecularly imprinted polymer on glassy carbon and graphene surface for electrochemical detection of Isoproturon</i>
15:40 ORAL	<b>Nevila Broli</b> (University of Tirana, Albania) <i>Application of nanostructured carbon based voltammetric sensors for antibiotics analysis in real matrixes: pharmaceutical tablets, milk and environmental water</i>
15:55 KEYNOTE	<b>Carsten Sönnichsen</b> (University of Mainz, Germany) <i>Plasmons as sensor for biomolecules</i>
16:25	COFFEE BREAK
17:10 KEYNOTE	<b>Gianni Ciofani</b> (Italian Institute of Technology, Italy) <i>Smart NanoHeaters Tackling Brain Cancer</i>
17:40 KEYNOTE	<b>Larysa Baraban</b> (Helmholtz-Zentrum Dresden-Rossendorf, Germany) <i>Cancer immunology meets nanobioelectronics</i>
18:10 INVITED	<b>Bashkim Ziberi</b> (University of Tetova, Republic of North Macedonia) <i>Nanoparticle-aided Radiotherapy with Immunotherapy using smart biomaterials in cancer treatment</i>
18:30 ORAL	<b>Melis Emanet</b> (Istituto Italiano di Tecnologia, Italy) <i>Polydopamine nanoparticles-based hyperthermal chemotherapy for the treatment of liver cancer</i>
18:45 ORAL	<b>Ozlem Sen</b> (Istituto Italiano di Tecnologia, Italy) <i>Trastuzumab-functionalized piezoelectric nylon-11 nanovectors as an innovative tool in cancer therapy</i>

## INDUSTRIAL FORUM

09:00 KEYNOTE	<b>Francesco Bonaccorso</b> (BeDimensional, Italy) <i>Industrial production of high quality 2D materials: challenges and prospective</i>
09:30 INVITED	<b>Paolo Bondavalli</b> (Thales Research & Technology, France) <i>Exotic properties of 2D materials: physics and real expectations for applications</i>
10:00 ORAL	<b>Sebastiano Bellani</b> (BeDimensional S.p.A., Italy) <i>Graphene-enabled printed, flat-flex reference electrodes for in operando monitoring Li-ion battery parameters</i>
10:15	COFFEE BREAK
11:15 KEYNOTE	<b>Dhimiter Bello</b> (UMass Lowell, USA) <i>Detection, characterization, and toxicological assessment of nano- and other advanced materials in consumer products: Progress, challenges, needs and opportunities</i>
11:45 INVITED	<b>Marinela Barci</b> (Huawei Technologies R&D Belgium N.V., Belgium) <i>Best Combination of Selector Technology and Memory Element to Achieve High Density and Low Power Crosspoint Arrays for SCM Applications</i>
12:15 INVITED	<b>Vincent Bouchiat</b> (Grapheal, France) <i>industrial production of Graphene Field effect transistors for invitro diagnostics and wearables</i>
12:45 ORAL	<b>George Tsekenis</b> (Biomedical Research Foundation of the Academy of Athens, Greece) <i>NextGenMicrofluidics: low-cost. modular Lab-on-a-Cartridge devices for public health and food safety monitoring</i>
13:00	LUNCH BREAK
14:00	POSTER SESSION
<b>INDUSTRIAL FORUM</b>	
14:30 KEYNOTE	<b>Emmanuel Kymakis</b> (Hellenic Mediterranean University, Greece) <i>Mixed-Halide Perovskites meet 2D materials: An ideal materials platform for efficient energy harvesting and neuromorphic computation</i>
15:00 KEYNOTE	<b>Daniel Ruiz-Molina</b> (ICN2-CSIC, Spain) <i>Controlling the functionality of surfaces and nanoparticles with mussel-inspired approaches</i>
15:45 ORAL	<b>Vullnet Haka</b> (Albanian Manufacturers Union, Albania) <i>Nanotechnology, an exceptional opportunity for the sustainable economic development</i>
15:30 INVITED	<b>Florensa Kovaci</b> (Ministry of Defence, Albania) <i>Ministry of Defence Innovation Center</i>
16:00	COFFEE BREAK
17:10 KEYNOTE	<b>Mar Puyol Bosch</b> (UAB, Spain) <i>Microreactor assisted synthesis of nanoparticles for chemical analysis</i>
17:40 INVITED	<b>Lutfi Oksuz</b> (Suleyman Demirel University, Turkey) <i>Liquid Plasma as Processing Tool for Nanotechnology</i>
18:10 ORAL	<b>Gustavo Dalkiranis</b> (Institut Català de Nanociència i Nanotecnologia, Spain) <i>A printed heater for the rapid drying of inkjet biosensors using consumer printers</i>

09:00 KEYNOTE	<b>Jesús Alberto Escarpa Miguel</b> (University of Alcalá, Spain) <i>Micromotor-based aptassays for neonatal sepsis diagnosis</i>
09:30 KEYNOTE	<b>Mariana Medina Sánchez</b> (IFW Dresden, Germany) <i>Medical microrobots decorated with functional nanomaterials</i>
10:00 KEYNOTE	<b>Oliver Schmidt</b> (TU Chemnitz, Germany) <i>4D Nanomembrane Materials for Electronic Skin and Microrobots</i>
10:30 KEYNOTE	<b>Clivia Sotomayor</b> (ICN2, Spain) <i>A platform for GHz Si phononics: Sources, waveguides and circuits</i>
11:00	COFFEE BREAK
11:30 KEYNOTE	<b>Beatriz Prieto-Simon</b> (ICREA/URV, Spain) <i>Carbon-stabilised porous silicon nanostructures to build the next generation of diagnostic tools</i>
12:00 INVITED	<b>Tarja Nevanen</b> (VTT, Finland) <i>Recombinant antibodies for future immunodetection</i>
12:20 KEYNOTE	<b>Kevin Plaxco</b> (UC Santa Barbara, USA) <i>Counting molecules, dodging blood cells: real-time molecular measurements directly in the living body</i>
12:50 INVITED	<b>Toshinori Fujie</b> (Tokyo Institute of Technology, Japan) <i>Ultra-Flexible Electronics Interfacing Living Body</i>
13:10 ORAL	<b>Avni Berisha</b> (University of Prishtina, Republic of Kosovo) <i>Which is superior for the absorption of the Lindane pesticide, graphene or graphene oxide? Experimental and DFT investigation</i>
13:25	LUNCH BREAK
14:00	POSTER SESSION
14:30	PARALLEL SESSION (STUDENTS)
15:30	COFFEE BREAK
16:30 KEYNOTE	<b>Danny Porath</b> (The Hebrew University of Jerusalem, Israel) <i>Molecular Electronics with DNA towards DNA Detection</i>
17:00 KEYNOTE	<b>Elena Martínez Fraiz</b> (IBEC, Spain) <i>Biofabrication techniques to guide the cellular organization in tissues</i>
17:30 INVITED	<b>Winnie Edith Svendsen</b> (DTU, Denmark) <i>StretchBIO - Photonic nanosystem for continuous two-dimensional Stretch monitoring of fresh tissue Biopsies</i>
17:50 KEYNOTE	<b>Arzum Erdem Gürsan</b> (Ege University, Turkey) <i>Nanomaterials Modified Electrochemical Nucleic Acid Biosensors</i>
18:20 INVITED	<b>Mimoza Basholli</b> (University of Pristina, Republic Kosovo) <i>Nanoencapsulation of bioactive compounds as novel strategy to improve their bioactivity and stability</i>
18:40 ORAL	<b>Lilianne Beola Guibert</b> (Istituto Italiano di Tecnologia, Italy) <i>Multifunctional biomimetic nanoparticles-induced hyperthermia improves survival in a human glioblastoma multiforme orthotopic mice model: A pilot study</i>
18:55 ORAL	<b>Ledia Vasjari</b> (University of Tirana, Albania) <i>Assessment of metal compounds potential to induce DNA breaks</i>

## PARALLEL SESSION I (PHD STUDENTS)

14:30 ORAL	<b>Kumara B N</b> (Yenepoya University, India) <i>Lysozyme Responsive Prolonged Dual Anti-glaucoma Drug Deliverable Nanocomposite to Manage Intraocular Pressure</i>
14:40 ORAL	<b>Danilo Echeverri</b> (University of Antioquia, Colombia) <i>Nanobiosensing architectures for the detection of <math>\beta</math>-1,4-Galactosyltransferase-V colorectal cancer biomarker</i>
14:50 ORAL	<b>José Marrugo-Ramírez</b> (ICN2, Spain) <i>Challenges and Possible Approaches to Molecular Imprinting for Nanobiosensing of Small Molecules</i>
15:00 ORAL	<b>Enric Calucho Palma</b> (Catalan Institute of Nanoscience and Nanotechnology, Spain) <i>Reduced Graphene Oxide electrodes for disposable paper-based sensors</i>
15:10 ORAL	<b>Jennifer Quinchia</b> (University of Antioquia, Colombia) <i>Photochromic nanopolymersomes as smart encapsulating platform</i>
15:20 ORAL	<b>Liming Hu</b> (ICN2, Spain) <i>A rational approach to tailor Au-IrO<sub>2</sub> nanoflowers as colorimetric labels for lateral flow assays</i>
15:30	COFFEE BREAK

## PARALLEL SESSION II (PHD STUDENTS)

14:30 ORAL	<b>Ankit Bhardwaj</b> (The University of Manchester, UK) <i>Membranes of 2D Materials and Capillaries for Mass Transport</i>
14:40 ORAL	<b>Gabriel Maroli</b> (Catalan Institute of Nanoscience and Nanotechnology, Spain) <i>Challenges of printing on brittle and delicate substrates and membranes</i>
14:50 ORAL	<b>Alessio Carmignani</b> (Istituto Italiano di Tecnologia, Italy) <i>Polydopamine nanoparticles as a potential tool for treating hepatic steatosis</i>
15:00 ORAL	<b>Xhorxhina Shauli</b> (University of Fribourg, Switzerland) <i>Probing temperature-responsivity of pNIPAM microgels by super resolution microscopy and numerical simulations</i>
15:10 ORAL	<b>Celia Fuentes Chust</b> (Institut Català de Nanociència i Nanotecnologia, Spain) <i>Aptamer displacement Lateral Flow assay for Phenylketonuria monitoring</i>
15:20 ORAL	<b>Gubakhanim Shahnazarova</b> (ICN2, Spain) <i>Au/Fe nanoreactors to directly generate ROS in water for environmental remediation and therapies</i>
15:30	COFFEE BREAK



09:00 KEYNOTE	<b>Michal Otyepka</b> (Regional Centre of Advanced Technologies and Materials, Czech Republic) <i>Unraveling Secrets of Photoluminescence of Carbon Dots by Computational Chemistry</i>
09:30 ORAL	<b>Michał Zieliński</b> (Nicolaus Copernicus University, Poland) <i>From Quantum Dots to Dopants in Silicon</i>
09:45 INVITED	<b>Fetah Podvorica</b> (University of Prishtina, Republic Kosovo) <i>Control of the composition of the grafted organic layer by diverting the reactivity of aryl radicals</i>
10:05	COFFEE BREAK
11:00 KEYNOTE	<b>Gjergj Dodbiba</b> (The University of Tokyo, Japan) <i>Magneterehological Properties of a Mixture of Carbonyl Iron Powders Suspended in Ionic Liquid</i>
11:30 INVITED	<b>Andrea Idili</b> (University of Rome Tor Vergata, Italy) <i>Stimuli-responsive DNA-Based Nanodevices programmed by Purely Entropic Linker Domains</i>
11:50 ORAL	<b>Ledia Vasjari</b> (University of Tirana, Albania) <i>Assessment of metal compounds potential to induce DNA breaks</i>
12:05 INVITED	<b>Valbona Aliko</b> (NanoAlb, University of Tirana, Albania) <i>Molecular docking approach to elucidate potential genotoxic impact of copper engineered nanoparticles (CuO NP) upon red blood cells</i>
12:25 KEYNOTE	<b>Javier Rodríguez-Viejo</b> (ICN2, Spain) <i>Heat capacity measurements at the nanoscale</i>
12:55 ORAL	<b>Alma Shehu</b> (University of Tirana, Albania) <i>Study on the distribution of ground level PM concentrations of urban air in most frequented places of Tirana City</i>
13:10 ORAL	<b>Arjan Korpa</b> (University of Tirana, Albania) <i>Role of aluminum in nanostructure and strength of cement hydration phases</i>
13:25	CLOSING