



Tentative Program

(as of 22/08/2018)

Monday September 03, 2018		
14:00-14:45	Registration	
14:45-15:00	Opening Ceremony	
15:00-15:30	Michael Roukes (Caltech, USA) Integrated Neurophotonics: A new, all-optical paradigm for dense brain circuit interrogation at arbitrary depths	K
15:30-16:00	Gianaurelio Cuniberti (TU Dresden, Germany) Sensing towards the quantum limit: The convergence of molecular detection and artificial perceptrons	K
16:00-16:30	Dario Gerace (University of Pavia, Italy) Quantum simulators in hybrid nanocircuits	I
16:30-17:00	Coffee Break / Poster Session	
17:00-17:30	Anja Boisen (DTU NANOTECH, Denmark) Nanosensors for Life science applications	K
17:30-18:00	Mark Schwartzman (Ben-Gurion University of the Negev, Israel) Nanodevices for the Study of NK Cell Function	K
18:00-18:30	Danny Porath (The Hebrew University of Jerusalem, Israel) Surprising charge transport in DNA	K
18:30-18:45	Abid Ali Khan (COMSATS Institute of Information Technology, Pakistan) Nanostructured Carrier Platforms for the Encapsulation of Drugs and Natural Bioactive Agents	O
19:15	Welcome Cocktail and Concert at "Ex Monastero degli Olivetani".	

Tuesday September 04, 2018		
09:00-09:30	Adrian Bachtold (ICFO – The Institute of Photonic Sciences, Spain) NanoMechanics: new insights into helium superfluidity and thermal transport in 2D	K
09:30-10:00	Nicola Pugno (University of Trento, Italy) Mechanics of 2D materials and related 3D composites	K
10:00-10:30	Mads Brandbyge (DTU Nanotech, Denmark) Contacting graphene: First principles transport simulations	K
10:30-11:30	Coffee Break / Poster Session	
11:30-12:00	Vittorio Morandi (CNR-IMM, Italy) Graphene Technology: synthesis, characterization and technological device integration	K
12:00-12:30	Vladimir Falko (National Graphene Institute, University of Manchester, UK) Minibands for Dirac electrons in moiré superlattices	I
12:30-13:00	Peter Bøggild (DTU Nanotech, Denmark) Edge engineering in graphene devices	K
13:00-14:30	Cocktail Lunch (offered by TNT2018 organisers) / Poster Session	
Parallel Session - Graphene Track A		
14:30-15:00	Marco Romagnoli (CNIT, Italy) Graphene Phase Modulators for Optical Communications	I
15:00-15:30	Choon-Gi Choi (ETRI, Korea) Wearable Human Motion Detectable Sensors based on Graphene and 2D Material Composites	I
15:30-16:00	Ilkwon Oh (KAIST, Korea) Soft Actuators based on Graphene and 2D Materials	I

16:00-17:00	Coffee Break / Poster session	
17:00-17:30	Lucia Gemma Delogu (Institute for Pediatric Research, Italy) Immune cells and graphene: interactions and potentiality	I
17:30-18:00	Damien Voiry (IEM/Université de Montpellier, France) Defect engineering and functionalization of 2D Transition Metal Dichalcogenides for Electrocatalysis and Molecular Sieving	I
18:00-18:15	Nuria Alegret (University of Colorado Denver Anschutz Medical Campus, USA) Development of Carbon Nanotubes-based Porous 3D Scaffolds for Tissue Regeneration	O
18:15-18:30	Sorin Perisanu (Universite Lyon 1, France) Giant increase in mechanical Q-factor of SWCNT induced by external voltage	O
Parallel Session - Graphene Track B		
14:30-15:00	Giuseppe Iannaccone (University of Pisa, Italy) Transistors and memories based on 2D materials for integrated circuits dedicated to machine learning	I
15:00-15:30	Antonio Agresti (University of Rome Tor Vergata, Italy) 2D materials and perovskite solar cells: toward a reliable and scalable PV technology	I
15:30-15:45	Christophe Adessi (ILM, Université Claude Bernard Lyon 1, France) DFT study of the thermal transport properties of MoS ₂ : Application to thermoelectricity	O
15:45-16:00	Stiven Forti (Istituto Italiano di Tecnologia, Italy) Two-dimensional semiconducting Gold	O
16:00-17:00	Coffee Break / Poster session	
17:00-17:30	Saverio Russo (University of Exeter, UK)	I
17:30-17:45	Giuseppe Valerio Bianco (CNR-NANOTEC, Italy) CVD Growth of WS ₂ and MoS ₂ Centimeter Scale Films	O
17:45-18:00	Robertino Zanoni (Università degli studi di Roma "La Sapienza", Italy) Partially reduced graphene/silicon interfaces via electrochemical reduction	O
18:00-18:15	Haibin Gao (Saarland University, Germany) Hamaker constant of freestanding graphene from STM and AFM measurements	O
19:00	Visit to the Museo Faggiano	

Wednesday September 05, 2018		
09:00-09:30	Roy Shenhar (The Hebrew University of Jerusalem, Israel) Nano-Patterned Polyelectrolyte Multilayers: A Non-Lithographic Approach	K
09:30-09:45	Paola Prete (CNR-IMM, Italy) GaAs-AlGaAs nanowire quantum well tubes: self-assembly and nano-scale spectroscopic imaging	O
09:45-10:00	Valentina Dichiarante (Politecnico di Milano, Italy) Fluorous Probes as Smart Imaging Tools	O
10:00-10:15	Petra Granitzer (University of Graz / Institute of Physics, Austria) Photoluminescence of porous silicon tunable by magnetic metal deposition	O
10:15-10:30	Klemens Rumpf (University of Graz / Institute of Physics, Austria) Arrays of exchange coupled magnetic nanostructures for permanent nanomagnets	O
10:30-10:45	Yeon Soo Kim (Ewha Womans University, Korea) Large magnetoresistance in oxygen deficient SrTiO ₃	O
10:45-11:00	Shruti Verma (Indian Institute of Technology Ropar, India) Effect of Benzo perylene monoimide on opto-electronic properties of Cd-doped ZnO nanostructures	O
11:00-11:30	Coffee Break / Poster session	
11:30-13:00	Poster Session	
13:00-14:30	Lunch	
14:30-15:00	Francesco Bonaccorso (IIT-Graphene Labs / BeDimensional, Italy) 2D materials for energy	K
15:00-15:15	Chun-Da Liao (International Iberian Nanotechnology Laboratory, Portugal) The Growth of Millimeter-Scaled Graphene Single Crystal through Nucleation Density Control in Height-Confined Reaction Slits	O
15:15-15:30	Nicolas F. Martinez (Concept Scientific Instruments, France) Advanced nano-electrical characterization of solar cells and 2D materials with atomic force microscopy	O

15:30-15:45	Eleni Anargirou (scientaomicron, Germany) Recent advancements in surface science instrumentation	O
15:45-16:00	Jakub Opršal (Synpo a.s., Czech Republic) Nanofibrous membranes with antifouling properties	O
16:00-16:15	Boris Kulnitskiy (TISNCM, Russia) Structural peculiarities of silicon after ball milling in the presence of different materials	O
16:15-17:00	Coffee Break / Poster Session	
Parallel Session - PhD Students Track A – (Graphene, Nanofabrication, Nanophotonics)		
17:00-17:15	Gaetano Calogero (Technical University of Denmark (DTU Nanotech), Denmark) Atomistic far-field currents in graphene - how to include DFT-precision regions in large-scale tight-binding	O
17:15-17:30	Anne Holsch (Saarland University, Germany) Scanning tunneling microscopy and spectroscopy of Au islands on top of graphene/Rh(111)	O
17:30-17:45	Luis Fernando Pantoja Suárez (University of Barcelona, Spain) Native oxide film reduction on stainless steel for direct growth of carbon nanotubes	O
17:45-18:00	Salvatore Puce (CBN@UniLe Lecce - Istituto Italiano di Tecnologia, Italy) 3D-microfabrication by 2PP sacrificial stencil mask	O
18:00-18:15	Paolo Ponzellini (Italian Institute of Technology, Italy) Plasmonic Zero Mode Waveguide for enhanced confined fluorescence emission	O
18:15-18:30	Azin Ziashahabi (IIT, Italy) Absorption band tuning and photocatalytic activity enhancement in hybrid plasmonic oxide Ag/ZnO nanostructures	O
Parallel Session - PhD Students Track B (NanoBiotechnology, Nanomagnetism, Nanomaterials, Theory, Other)		
17:00-17:15	Nazeeha Ayaz (Politecnico di Milano, Italy) Protein stabilized nanoformulation of a superfluorinated ¹⁹ F-MRI contrast agent	O
17:15-17:30	Giacomo Mandriota (University of Salento, Italy) Polydopamine-functionalized superparamagnetic clusters as theranostic system	O
17:30-17:45	Elisa Scarpa (Istituto Italiano di Tecnologia, Italy) Wearable gravimetric sensor based on hydrogel for pH sweat levels monitoring at nL scale	O
17:45-18:00	DaYea Oh (Konkuk Univeristy, Korea) Local chemical modification of MoS ₂ layer using AFM lithography	O
18:00-18:15	Lara Natta (Istituto Italiano di Tecnologia, Italy) Ultrathin flexible AlN-based smart patch for vascular graft monitoring	O
18:15-18:30	Giulia Giannone (University of Salento and Italian Institute of Technology, Italy) Evidence for Strong Coupling Phenomena in Molecular Plasmonic Switches: a Density Functional Theory Study	O
20:30	Social Dinner at Torre del Parco Restaurant More info	

Thursday September 06, 2018		
09:00-09:30	John Sipe (University of Toronto, Canada) The Nonlinear Optics of Graphene: Welcome to the Wild West!	K
09:30-09:45	Stefano Palomba (The University of Sydney, Australia) SHG enhancement by TiN metasurfaces	O
09:45-10:15	Marco Liscidini (University of Pavia, Italy) Guided Bloch long-range surface plasmon polaritons	I
10:15-11:15	Coffee Break / Poster Session	
11:15-11:45	Francesco De Angelis (Istituto Italiano di Tecnologia, Italy) 3D plasmonic nanostructures for biology and medicine	I
11:45-12:15	Paolo Biagioni (Politecnico di Milano, Italy) Germanium mid-infrared plasmonics for sensing	I
12:15-12:30	Milena De Giorgi (CNR-NANOTEC-Institute of Nanotechnology, Italy) Interaction and coherence of a plasmon-exciton polariton condensate	I
12:30-13:00	Stefano Corni (University of Padova, Italy) Characterizing plasmons at the nanoscale by firstprinciple simulations	I

13:00-13:15	Muhammad Khalid (Istituto Italiano di Tecnologia, Italy) Nonlocal Optical Properties of Spherical Nanomatryoshkas	O
13:15-14:45	Lunch	
14:45-15:15	Andrea Ferrari (University of Cambridge / CGC, UK) Light Scattering and Emission from Layered Materials	K
15:15-15:30	Wei Wu (Wuhan University, China) Printable Down-/Up-Conversion Fluorescence Inks for Anti-Counterfeiting Applications	O
15:30-15:45	Tobias Vossmeier (University of Hamburg, Germany) Fabrication via Contact Printing: Chemical and Physical Sensors from Cross-Linked Nanoparticles	O
15:45-16:00	Dmitry Baranov (Italian Institute of Technology, Italy) Expanding Perovskite Toolbox via Self-Assembly of CsPbX ₃ and Cs ₄ PbX ₆ Nanocrystals	O
16:00-16:30	Liberato Manna (IIT, Italy) Halide Perovskites Nanocrystals: Synthesis, Transformations and their Application in Devices	K
16:30-17:00	Coffee Break / Poster Session	
17:00-17:30	Amit Sitt (Tel Aviv University, Israel) Active Polymeric Fibers as Nanoreactors	K
17:30-18:00	Lluis F. Marsal (Universitat Rovira i Virgili, Spain) Engineering of Nanoporous Anodic Alumina as a Versatile Platform for Biomedical Applications	K
18:00-18:30	Uri Raviv (The Hebrew University of Jerusalem, Israel) Crystallization, reentrant melting, and resolubilization of virus nanoparticles	K
18:30-18:45	Enrico Miceli (Karlsruhe Institute of Technology, Institute of Toxicology and Genetics, Germany) Single-Enzyme Nanogels for High-Performance Nanobiocatalysis	O

Friday September 07, 2018		
09:00-09:30	Giuseppe Battaglia (University College London, UK) Super-selective nanomedicines	K
09:30-10:00	Teresa Pellegrino (IIT, Italy) Magnetic Nanocrystals and magnetic hyperthermia to tackle cancer	K
10:00-10:15	Chiara Ingrosso (CNR-IPCF, Università degli Studi di Bari, Italy) Gold nanoparticles decorated Reduced Graphene Oxide electrodes for detection of a cancer biomarker candidate	O
10:15-10:30	Preethi Bala Balakrishnan (Istituto Italiano di Tecnologia, Italy) An In vivo Study on Cobalt Ferrite Nanoparticles as Multi-Modal Cancer Therapy Combining Intrinsic Toxicity and Hyperthermia	O
10:30-11:30	Coffee Break / Poster Session	
11:30-11:45	Barbara Spagnolo (Istituto Italiano di Tecnologia @CBN, Italy) Implementation of 2pl 3d nanofeatured microscaffolds and optogenetics	O
11:45-12:00	Giorgia Giovannini (Istituto Italiano di Tecnologia, Italy) Novel MNPs-based isolation approach looking for "the needle in the haystack"	O
12:00-12:30	Ferruccio Pisanello (CBN-IIT, Italy) Multifunctional neural interfaces with micro- and nano-structured tapered optical fibers	I
12:30-13:00	Annalisa Palange (IIT, Italy) Soft polymeric nanoconstructs for vascular drug delivery and tissue depots	I
13:00	Closing	
16:00	Trip to Otranto	