



Tentative Programme

(as of 06/06/2017)

Monday June 05, 2017		
14:00-15:00	Registration	
15:00-15:15	Opening Ceremony	
15:15-15:45	Luis Hueso (CIC nanoGUNE, Spain) Spin transport, spinterface and spin photovoltaics in molecular films	K
15:45-16:00	Manoko Maubane (University of the Witwatersrand, South Africa) From Carbon Shells to Multipods- The role of nickel particle shape and size	O
16:00-16:15	Petra Pötschke (Leibniz-Institut für Polymerforschung Dresden e.V. , Germany) Polymer-SWCNT composites for recovering waste heat into electrical energy	O
16:15-16:45	Mikhael Bechelany (IEMM-CNRS, France) Engineering of Interfaces for Preparing new Functional Materials	K
16:45-17:30	Coffee Break	
17:30-18:00	Xiaodong Zhuang (Dresden University of Technology, Germany) 2D Materials for supercapacitors	I
18:00-18:15	Ye Liu (Dresden University of Technology, Germany) Doped Single-Walled Carbon Nanotubes for Flexible Thermoelectric Applications	O
18:15-18:30	Xiaoyu Han (University College London, United Kingdom) A Targeted Functional Design for Highly Efficient and Stable Cathodes for Rechargeable Li-Ion Batteries	O
18:30-18:45	Lifeng Liu (International Iberian Nanotechnology Laboratory, Portugal) Monolithic Cobalt Phosphide Nanowire Electrodes for Efficient and Durable Water Splitting	O
18:45-19:00	Siddik Icli (Ege University, Turkey) Photosynthesis; Miracle of Organic Life and its Technologies	O

Tuesday June 06, 2017		
09:00-09:30	Claudia Backes (Universität Heidelberg, Germany) Liquid-exfoliated transition metal dichalcogenides: from spectroscopic metrics to functionalisation	K
09:30-10:00	Ute Kaiser (Ulm University, Germany) Properties of two-dimensional materials by high-resolution low-voltage aberration-corrected TEM	K
10:00-10:30	Andrey Turchanin (Friedrich Schiller University Jena, Germany) Carbon-based van der Waals heterostructures of 2D materials	K
10:30-11:00	Coffee Break & Poster session	
11:00-11:30	Xinliang Feng (Technische Universität Dresden, Germany) Graphene and Organic 2D Materials: Grand Challenges and Opportunities	K
11:30-12:00	Francesco Bonaccorso (IIT-Graphene Labs / BeDimensional, Italy)	K
12:00-12:30	Vladimir Falko (National Graphene Institute, UK) Electronic and optical properties of 2D atomic InSe crystals	K
12:30-13:00	Thomas Heine (Universität Leipzig, Germany) Two-dimensional crystals containing phosphorus	K
13:00-14:30	Lunch	
Parallel Session - Graphene Track A		
14:30-15:00	Marc Chaigneau (HORIBA Scientific, France) Tip Enhanced Optical Spectroscopy of 2D materials – from graphene to TMDCs	I
15:00-15:15	Stephan Adam (SURAGUS GmbH, Germany) Challenges and Insights by Electrical Characterization of Large Area Graphene Layers	O
15:15-15:30	Christophe Adessi (Université Claude Bernard Lyon I, France) First principle investigation on thermoelectric properties of transition metal dichalcogenides: Beyond rigid band model	O
15:30-15:45	Alexei Nazarov (Lashkaryov Institute of Semiconductor Physics NASU, Ukraine) Electrical Conductivity and micro-Raman Spectroscopy of Graphene Layer Deposited on SiO ₂ Dielectric and Subjected to Electron Beam Irradiation	O
15:45-16:00	Michele Pisarra (Universidad Autónoma de Madrid, Spain) Graphene on SiO ₂ under ultrahigh pressure	O
16:00-16:30	Coffee Break & Poster session	
16:30-17:00	Paolo Bondavalli (Thales Research & Technology, France) Graphene based supercapacitors : results perspectives and potential industrial implementation	I
17:00-17:15	Pedro Costa (King Abdullah University of Science and Technology, Saudi Arabia) Rational Design of Graphene-Based Materials for Supercapacitors	O
17:15-17:30	Jian Zhang (TU Dresden, Germany) Efficient Hydrogen Production by Tailoring Electrocatalysts with Fast Water Dissociation Kinetics	O
17:30-17:45	Moumita Kotal (Korea Advanced Institute of Science and Technology (KAIST), Korea) Nitrogen and Sulfur Co-doped Holey Graphene Aerogel For High-performance Compression-Tolerant All Solid-State Supercapacitors	O
Parallel Session - Graphene Track B		
14:30-15:00	Julio Gomez (UAM, Spain) Isolation of Highly Stable Antimonene under Ambient Conditions. Optical and Electrical Properties	K
15:00-15:30	Siegfried Eigler (Freie Universität Berlin, Germany) Controlled Chemistry of Oxo-functionalized graphene and graphene oxide	K
15:30-16:00	Armin Götzhäuser (Bielefeld University, Germany) Carbon Nanomembranes (CNM) : 2D Materials Beyond Graphene	K
16:00-16:30	Coffee Break & Poster session	
16:30-17:00	Zhenxing Wang (AMO GmbH, Germany) Graphene-based high-frequency electronics	I
17:00-17:15	Renhao Dong (TU Dresden, Germany) Interfacial Synthesis of 2D Polymers and 2D Supramolecular Polymers	O
17:15-17:30	Emre Gür (Atatürk University, Turkey) Magnetron Sputtered WS ₂ Thin Films	O
17:30-17:45	Jian Xiang Lian (UMONS, Belgium) Ordered Non-Covalent Functionalization of Graphene by Controlled Formation of 2D Supramolecular Self-Assemblies at the Graphene Surface Forming Hybrid vdW Heterostructures	O

17:45-18:00	Dmitry Kvashnin (National University of Science and Technology MISiS, Russia) One-atom-thick 2D material based on CuO. Experimental observations and theoretical study	O
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Wednesday June 07, 2017

09:00-09:30	Stefania D'Agostino (IIT, Italy) New Trends in Computational Plasmonics	K
09:30-10:00	Xavier Bouju (CEMES / CNRS, France) Gold monolayer islands on a polar AlN(0001) surface	K
10:00-10:30	Dmitry A. Ryndyk (University of Bremen, Germany) Atomistic nanoscale device modeling: charge and heat transport in large-scale systems	I
10:30-11:00	Frank Ortmann (TU Dresden, Germany) Organic Semiconductors: Fundamentals and Applications	K
11:00-11:30	Coffee Break & Poster session	
11:30-13:00	Poster session	
13:00-14:30	Cocktail Lunch (offered by TNT2017 organisers)	
14:30-15:00	Christian Joachim (CEMES/CNRS, France) One-way rotation of a single molecule-rotor	K
15:00-15:30	Anne-Sophie Duwez (University of Liege, Belgium) Probing single molecules with AFM: Force, motion, dynamics, and function	K
15:30-16:00	Francesca Moresco (TU Dresden, Germany) Mechanics with single molecules: Manipulation with the STM tip	K
16:00-17:00	Coffee Break & Poster session	
17:00-17:30	Markus Maier (Scienta Omicron, Germany) Electrical Transport Measurements with Atomically Precise Probes	I
17:30-18:00	Takashi Uchihashi (MANA-NIMS, Japan) Switchable supramolecular motors with surface chirality	K
18:00-18:30	We-Hyo Soe (CEMES/CNRS, France) Controllable single molecule gear	K
18:30-19:00	Danny Porath (The Hebrew University of Jerusalem, Israel) Novel DNA-Based Molecules and Their Charge Transport Properties	K
20:30	Conference Dinner - Restaurant - Sophienkeller im Taschenbergpalais Taschenberg 3 01067 Dresden – more info	

Thursday June 08, 2017

11:30-11:45	Adriana Szeghalmi (Friedrich Schiller University, Germany) Tailored nanoporous SiO ₂ thin films for antireflection coatings	O
11:45-12:00	Mathias Schubert (University of Nebraska-Lincoln, United States) Hybrid Materials from Sculptured Thin Films and Applications	O
12:00-12:30	Georg Johannes Schmidt (Martin-Luther-Universität Halle-Wittenberg, Germany) Nanopatterned complex oxides - key to new physics	K
12:30-13:00	Philippe Leclère (University of Mons (UMONS), Belgium) About the Quantitative Mapping of the Mechanical Properties of Polymeric Materials at the Nanoscale	K
13:00-14:30	Lunch	
14:30-15:00	Lucia Delogu (University of Sassari, Italy) New high throughput technologies reveal the impact of nanomaterials with human primary immune cells	K
15:00-15:15	Maria Emmeleia Gianneli (Attana AB, Sweden) Towards prediction of in vivo behavior of nanoparticles: A QCM platform for characterization of nanoparticle - cell interactions in a complex biological milieu	O
15:15-15:30	Nermin Seda Kehr (WWU-Münster, Germany) Bifunctional Porous Nanomaterials for Cell-Biomaterial Interaction Studies	O
15:30-16:00	Benjamin Friedrich (Max-Planck Institute, Germany) Navigation at the micro-scale: Swimming, steering, synchronization of biological microswimmers	K
16:00-16:30	Coffee Break & Poster session	
16:30-16:45	Larysa Baraban (Dresden University of Technology, Germany) Compact nanowire sensors probe emulsion droplets	O
16:45-17:00	Bergoi Ibarlucea (TU Dresden, Germany) Ebola biosensing with a gate controlled memristor mode	O
17:00-17:15	Nadia Licciardello (Technische Universität Dresden, Germany) Ultrasmall nanoparticles for bioapplications: potential in droplets based microfluidics	O

17:15-17:30	Jorge Romero-Garcia (Centro de Investigacion en Quimica Aplicada, Mexico) Biomimetic Synthesis of Polyaniline Catalyzed by Hematine Supported on Graphitic Carbon Nitride	○
17:30-17:45	Cornelia Palivan (University of Basel, Switzerland) Design of artificial organelles by combining proteins with synthetic nanocompartments	○
17:45-18:00	Olga Dement'eva (Frumkin Inst. of Physical Chem. and Electrochemistry of RAS, Russia) Novel Drug-Templated Mesoporous Silica Nanocontainers and Protocells Based Thereon	○

Friday June 09, 2017		
Parallel Session - PhD Students Track A		
09:00-09:15	Bushra Ali (Dundalk Institute of Technology, Ireland) Layer-By-Layer multilayer assembly of Graphene oxide with Keggin-type Polyoxometalates for electrocatalysis of Chloroform	○
09:15-09:30	Andrzej Chalupniak (Catalan Inst. of Nanoscience and Nanotechnology (ICN2), Spain) Toward integrated detection and graphene-based removal of contaminants in a lab-on-a-chip platform	○
09:30-09:45	Muhammad Ilyas (Brunel University London, United Kingdom) Structural Analysis of Plasma Exfoliated Graphene Nanoplatelets (GNPs) for the Development of Nano-Cementitious Composites	○
09:45-10:00	Sandeep Kumar Jain (Utrecht University, Netherlands) Graphene mechanics: defects, buckling and domain growth	○
10:00-10:15	Silvan Kretschmer (Helmholtz-Zentrum Dresden-Rossendorf, Germany) The mystery of semiconductor to metal phase transition in MoS ₂ under electron beam	○
10:15-10:30	Narek Margaryan (National Polytechnic University of Armenia, Armenia) The Study of Physical Properties of Self-Assembled Graphene	○
10:30-11:30	Coffee Break	
11:30-11:45	Leonardo Medrano Sandonas (Dresden University of Technology, Germany) Phononics in two-dimensional materials	○
11:45-12:00	Arevik Musheghyan Avetisyan (Universitat de Barcelona, Spain) Direct low temperature growth of vertically oriented graphene nanowalls on multiple substrates by Low Temperature Plasma-Enhanced Chemical Vapor Deposition	○
12:00-12:15	Jae Hoon Yang (Daegu Gyeongbuk Institute of Science and Technology (DGIST), Korea) Geometrically Enhanced Asymmetric I-V Characteristics in Graphene Tunneling Diode	○
12:15-12:30	Sheng Yang (Technische Universitaet Dresden, Germany) Electrochemical Exfoliation of Layered Conductive Materials	○
Parallel Session - PhD Students Track B		
09:00-09:15	Yuki Nakata (Tohoku University, Japan) Discovery of 2D Mott insulating phase in 1T-NbSe ₂ atomic layer	○
09:15-09:30	Martin Hartmann (University of Technology, Germany) Performance enhancement of carbon nanotube FETs via polymer-based doping control	○
09:30-09:45	Stephanie Klinghammer (TU Dresden, Germany) Multiplexed sensing of steroids with silicon nanowire field effect transistors	○
09:45-10:00	João Albuquerque (REQUIMTE/UCIBIO/FFUP, Portugal) Bypassing the rumen using lipid nanoparticles	○
10:00-10:15	Fernando Jiménez (IMDEA Nanociencia, Spain) Innovative Patterning Method for Modifying few-layer Mos ₂ Device Geometries	○
10:15-10:30	Mark-Robert Kalus (University of Duisburg-Essen, Germany) Ligand-free nanoparticles made by scalable laser synthesis for catalysis applications	○
10:30-11:30	Coffee Break	
11:30-11:45	Seunguk Kim (Daegu Gyeongbuk Institute of Science and Technology (DGIST), Korea) Optimizing geometric factors of nano-hole arrays for Label-free bio-detection	○
11:45-12:00	Jens Natterodt (Adolphe Merkle Institute, University of Fribourg, Switzerland) Polymer Nanocomposites with Cellulose Nanocrystals made by Coprecipitation	○
12:00-12:15	Eunhye Baek (TU Dresden, Germany) Multiplexed Synaptic Modulation and Memory in Ionic Film-coated Si Nanowire Transistors	○
12:15-12:30	Álvaro Díaz Fernández (Universidad Complutense de Madrid, Spain) Tailoring Fermi's velocity in topological insulators by an electric field	○
12:30-14:00	Lunch	

14:00-14:15	Daniel E. Bürgler (Forschungszentrum Jülich, Germany) Intramolecular variation of spin-polarization within single molecule-surface hybrid	O
14:15-14:30	Martyna Pingot (Lodz University of Technology, Poland) New cross-linking method of halogenated butyl rubber nanocomposites	O
14:30-14:45	Lars Rebohle (Helmholtz-Zentrum Dresden-Rossendorf, Germany) Millisecond annealing for the nanoscale	O
14:45-15:00	Zikhona Tetana (University of the Witwatersrand, South Africa) Nitrogen and Boron doping Effects in Carbon Nanospheres	O
15:00-15:15	Kumud Malika Tripathi (Gachon University, Korea) Multifunctional Water Soluble Carbon Nano Onions from Flaxseed Oil for Visible Light Induced Photocatalytic Applications and Label Free Detection of Al(III) Ions	O
15:15-15:30	Hender Lopez (University College Dublin, Ireland) Using single nanoparticle tracking to simultaneously characterize nanoparticle size distribution and nanoparticle-surface interactions	O
15:30	CONCLUDING REMARKS	
Complex Nano Materials Special Session: The Chair of Materials Science & Nanotechnology		
15:45-15:50	Welcome	
15:50-16:00	Gianaurelio Cuniberti (TU Dresden, Germany) - Opening remarks	
16:00-16:30	Julio Gomez (UAM, Spain) New strategies for electrical contacts in nanoscales systems	
16:30-16:45	Frank Eisenhut (TU Dresden, Germany) Dresden and the first Nanocar Race	
16:45-17:00	Julian Schütt (TU Dresden, Germany) Sensing at the nanoscale	
17:00-17:15	Alexander Croy (TU Dresden, Germany) From atom to system: Multi-scale simulations of nanoscale devices	
17:15	Closing	