SCIENTIFIC PROGRAMME
Graphene Week
Monday 13 June – Friday 16 June, 2016

SCIENTIFIC PROGRAMME – MONDAY, 13 JUNE 2016

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<td>08:30 – 09:05</td>
<td>OPENING CEREMONY, Auditorium Maximum, A.Mickiewicz room</td>
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<td>09:05 - 20:00</td>
<td>EXHIBITION SESSION, the Old Library</td>
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<td>09:05 – 12:55</td>
<td>PLENARY SESSION, Auditorium Maximum, A.Mickiewicz room</td>
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<td>12:55 – 15:00</td>
<td>LUNCH, University campus</td>
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<td>14:00 – 15:00</td>
<td>FRINGE SESSION – Mapping the publishing landscape, Nature Publishing Group, the Old Library</td>
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<td>15:00 – 18:00</td>
<td>PARALLEL SESSIONS (Contributed Orals), ONE – A.Mickiewicz, TWO- room C, THREE – room D</td>
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<td>Graphene Innovation Forum I. Roadmap: Industry needs and perspective towards electronics</td>
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<td>applications (Invited speakers) – the Old Library</td>
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<td>18:00 – 20:00</td>
<td>POSTER SESSION, the Old Library</td>
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<td>18:00 – 19:00</td>
<td>OPEN SESSION FOR THE PUBLIC, Central Agricultural Library</td>
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<td>20:15 – 24:00</td>
<td>WELCOME RECEPTION, the Grand Theatre</td>
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PLENARY SESSION, Auditorium Maximum, A.Mickiewicz room

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<td>09:05 - 09:40</td>
<td>Kurt Gaskill Epitaxial Graphene Naturally Enables Terahertz Optoelectronics</td>
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<td>09:40 - 10:15</td>
<td>Thomas Seyller Epitaxial Graphene on SiC studied by Electron Spectroscopy</td>
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<td>10:15 - 10:35</td>
<td>COFFEE BREAK</td>
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<td>10:35 - 11:10</td>
<td>Herbert Zirath A G-FET MMIC-process for W-band applications</td>
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<td>11:10 - 11:45</td>
<td>Euyheon Hwang Electronic and magnetic properties of 2D transition-metal thiophosphates and tunability of magnetic order with carrier density</td>
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<td>11:45 - 12:20</td>
<td>Max Lemme Piezoresistive Graphene Sensors</td>
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<td>12:20 – 12:55</td>
<td>Xinliang Feng Towards Synthetic Two-Dimensional Soft Materials</td>
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FRINGE SESSION, the Old Library

14:00-15:00  Mapping the publishing landscape, Nature Publishing Group, the Old Library

PARALLEL SESSIONS ONE, TWO & THREE

Parallel Session 1: Science and applications of graphene and new 2D materials - A.Mickiewicz room

15:00 – 15:20  Youngwoo Nam, University of Geneva, Switzerland
Interaction-induced insulating state in thick multilayer Graphene

15:20 – 15:40  Christos Melios, National Physical Laboratory, London, UK
Quasi-free standing graphene on SiC: Studies of local electronic and structural properties

15:40 – 16:00  Alexey Nikitin, CIC Nanogune, Spain
Nanoimaging of Fabry-Perot sheet and edge plasmonic modes in circular and rectangular graphene nanoresonators

16:00 – 16:20  Ivan Levkovskyi, ETH Zuerich, Swiss
Magneto-optical characterization of super-lattices in graphene

16:20 – 16:40  COFFEE BREAK

16:40 – 17:00  Adam Ryczew, Jagiellonian University, Poland
Quantum interference phenomena in graphene rings and disks

17:00 – 17:20  Malcolm Connolly, University of Cambridge, UK
Imaging ballistic and non-local transport in graphene using scanning gate microscopy

17:20 – 17:40  Viktoryia Shautsova, Imperial College London, UK
Detecting plasmon induced hot carriers in Graphene

17:40 – 18:00  Osman Balci, Bilkent University, Turkey
Active control of microwaves with large area graphene devices

Parallel Session 2: 2D materials, heterostructures and superstructures - C room

15:00 – 15:20  Ignacio Gutierrez-Lezama, University of Geneva, Switzerland
Unconventional band gap crossover in few-layer MoTe₂

15:20 – 15:40  Mircea Dragoman, National Research and Development Institute in Microtechnology
Room temperature ballistic graphene transistors - at the wafer scale

15:40 – 16:00  Stefan Schwarz, University of Sheffield, UK
Electrically pumped quantum emitters in van der Waals heterostructures

16:00 – 16:20  Scott Dufferwiel, University of Sheffield, UK
Valley addressable exciton-polaritons in transition metal dichalcogenide monolayers embedded in tunable microcavities

16:20 – 16:40  COFFEE BREAK

16:40 – 17:00  Tim Wehling, University of Bremen, Germany
2D Heterojunctions from Non-local Manipulations of the Coulomb Interaction

17:00 – 17:20  Antoine Reserbat-Plantey, ICFO, Spain
High-quality-factor mechanical resonators based on WSe₂ monolayers

17:20 – 17:40  Thomas Szkopek, McGill University, Canada
Two-Dimensional Magnetotransport and Mobility Modulation Effects in Black Phosphorus Naked Quantum Wells

17:40 – 18:00 Andrea Capasso, IIT, Italy
MoS\(_2\) flakes as hole transport layer in perovskite-based solar cells

Parallel Session 3: Correlation effects in graphene and 2D materials - D room

15:00 – 15:20 Amgad Rezk, RMIT University, Australia
Light Emission Modulation of 2D Materials using High Frequency Sound Waves

15:20 – 15:40 Mohammad Zarenia, University of Antwerp, Belgium
Electron-hole superfluidity and shape resonances in coupled graphene nanoribbons

15:40 – 16:00 Siyu Li, Beijing Normal University, China
Creating and probing wide-bandgap nanoribbon-like structures in a continuous metallic graphene sheet

16:00 – 16:20 Kim Youngwook, Max-Planck-Institute for Solid state research, Germany
Fractional Quantum Hall States in Bilayer Graphene Probed by Transconductance Fluctuations

16:20 – 16:40 COFFEE BREAK

Parallel Session 3: Graphene-related biomedical and environment research – D room

16:40 – 17:00 Yoones Kabiri, Kavli Institute of Nanoscience Delft, India
Transmission electron microscopy of unstained DNA origami structures on free-standing Graphene

17:00 – 17:20 Cécile Delacour, Institut Néel, France
Graphene field effect transistors for neuronal interfacing

17:20 – 17:40 Alice Montagner, University of Trieste, Italy
Ecotoxicity of graphene-based nanomaterials on aeroterrestrial microalgae

17:40 – 18:00 Olga Kazakova, National Physical Laboratory, London, UK
Humidity and environmental sensors based on graphene

Parallel Session 4: Graphene Innovation Forum I. Roadmap: Industry needs and perspective towards electronics applications (Invited speakers) - the Old Library

15:00 – 15:05 Gonçalo Gonçalves, Aixtron, UK
Introduction

15:05 – 15:15 Michael Meister, Fraunhofer Institute for Systems and Innovation Research ISI, Germany
The Graphene Flagship Roadmap

15:15 -15:40 Avik Ghosh, University of Virgina, US
Unconventional electronic switching with 2D materials

15:40 – 16:00 Daniel Neumaier, AMO, Germany
Graphene based active components in silicon photonic systems -- prospects and challenges

16:00 – 16:20 Günther Ruhl, Infineon Technologies AG, Germany
Challenges in process integration of graphene for manufacturing microelectronic devices

16:20 – 16:40 COFFEE BREAK

Parallel Session 4: Graphene Innovation Forum I. Roadmap: Industry needs and perspective towards electronics applications (Invited speakers) - the Old Library

16:40 – 17:00 Robert Rölver, Bosch, Germany
Graphene for future sensing applications

17:00 – 17:20  Claus Marquardt, RD Support Limited, Germany
Graphene in medical sensors and diagnostics: opportunities and challenges in point-of-care systems

17:20 – 18:00  Panel Discussion, moderated by Fraunhofer Institute for Systems and Innovation Research ISI, Germany

18.00 -19.00  Aixtron sponsored Reception, only for delegates attending Roadmap session

POSTER SESSION

3352831  1. Maxim Krivenkov, Helmholtz-Zentrum Berlin, Germany
Ordered nanocluster arrays as the origin of giant Rashba effect in Au-intercalated graphene on Ni(111)

3352420  2. Johannes Geurs, Max Planck Institute for Solid State Research, Germany
Investigating transport properties of monolayer graphene at the Van Hove singularity

3348564  3. Mark Danovich, National graphene institute, University of Manchester, UK
Comparison of radiative and Auger recombination of free trions in Tungsten based 2D transition metal dichalcogenides

3337096  4. José Hugo Garcia Aguilar, Institut Català de Nanociència i Nanotecnologia (ICN2) Bellaterra (Barcelona) Spain
Spin-Hall effect in graphene decorated with T-site resonant and non-resonant adatoms

3344062  5. Alina Mreńca-Kolasinska, AGH University of Science and Technology, Poland
Aharonov-Bohm effect along a circular n-p junction in graphene nanoribbon

334455  6. Sayanti Samaddar, Institut Néel, Université Grenoble Alpes, France
Charge puddles in graphene near the Dirac point

3344769  7. Wang Wenxiao, Beijing Normal University, China
Energy gaps of atomically precise armchair graphene nanoribbons

3344771  8. Siyu Li, Beijing Normal University, China
Creating and probing wide-bandgap nanoribbon-like structures in a continuous metallic graphene sheet

3344777  9. Jiayu Li, Peking University, China
Strong insulating states at the charge neutrality point in CVD grown high quality single-crystal Graphene

3344884  10. Luc Henrard, Université of Namur, Belgium
Near-zero refractive index metamaterials boost graphene-polymer heterostructures absorbers in the GHz regime

3345762  11. Damien Leech, University of Bath, UK
Controlled formation of an isolated miniband in bilayer graphene on an almost commensurate SqRoot(3) x SqRoot(3) substrate

3345805  12. Ben Van Duppen, Universiteit Antwerpen, Belgium
Current-induced birefringent absorption and non-reciprocal plasmons in Graphene

3346713  13. Shengjun Yuan, Radboud University, Netherlands
Mesoscopic Modeling of 2D Materials, Heterostructures and Superstructures

3346909  14. Minsoo Kim, POSTECH, Korea
Valley-symmetry-preserved 1D transport in a ballistic graphene layer with gate-defined carrier guiding
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<td>334707</td>
<td>Włodek Jaskolski, Nicolaus Copernicus University, Poland</td>
<td>Existence of nontrivial topologically protected states at grain boundaries in bilayer Graphene</td>
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<td>3347857</td>
<td>Otakar Frank, J.Heyrovsky Institute of Physical Chemistry of the AS CR, v.v.i, Czech Republic</td>
<td>Strain engineering of twisted bilayer Graphene</td>
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<td>3347891</td>
<td>Sergey Mikhailov, University of Augsburg, Germany</td>
<td>Nonlinear electrodynamic and optical effects in graphene</td>
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<td>3347967</td>
<td>Jacob C. König-Otto, Helmholtz-Zentrum Dresden-Rossendorf, Germany</td>
<td>The twofold nature of Coulomb scattering in Graphene</td>
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<td>3348019</td>
<td>Tikhonov Pasha, Bar Ilan, Israel</td>
<td>Emergence of helical edge conduction in graphene at the $\nu=0$ quantum Hall state</td>
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<td>3348144</td>
<td>Martin Drienovsky, University of Regensburg, Germany</td>
<td>Mixed filling factors in the Quantum-Hall-regime of ballistic Graphene</td>
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<td>3343508</td>
<td>Jan Obrzut, NIST, US</td>
<td>Non-contact graphene conductance using a microwave cavity</td>
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<td>3352297</td>
<td>Scott Dufferwiel, University of Sheffield, UK</td>
<td>Suppression of inter-valley relaxation in monolayer WSe2 with small magnetic fields</td>
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<td>3344900</td>
<td>Alexander Kvashnin, Emanuel Institute of Biochemical Physics RAS, Russia</td>
<td>New prospective composites for photovoltaic based on graphene, C60 and TMDs. Theoretical investigation</td>
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<td>3345234</td>
<td>Fábio Ferreira, Universidade do Minho, Portugal</td>
<td>Adsorption of H2, O2, OH and H2O molecules and atomic H on monolayer MoS2</td>
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<td>Elton Santos, Queen's University, UK</td>
<td>Organic van der Waals Heterostructures for High Performance Semiconductor Device Platforms: Interplay Between Epitaxy and Electronic Properties</td>
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<td>3346197</td>
<td>Alexander Pearce, University of Konstanz, Germany</td>
<td>A Tight Binding Approach to Strain and Curvature in Monolayer Transition-Metal Dichalcogenides</td>
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<td>3347466</td>
<td>Marcin Kurpas, University of Regensburg, Germany</td>
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<td>Johannes Kern, University of Münster, Germany</td>
<td>Nanoantenna-Enhanced Light-Matter Interaction in Atomically Thin WS2</td>
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<td>Igor Wlasny, University of Warsaw, Poland</td>
<td>Hexagonal boron nitride - substrate for Graphene</td>
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<td>3348386</td>
<td>Viktor Zolyomi, University of Manchester, UK</td>
<td>Optoelectronic properties study of atomically thin ReSe with weak inter-layer coupling</td>
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<td>3348756</td>
<td>Yury Illarionov, Institute for Microelectronics (TU Wien), Austria</td>
<td>Temperature-dependent hysteresis in black phosphorus FETs</td>
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<td>3348787</td>
<td>Lee Hague, University of Manchester, UK</td>
<td>The Optical Properties of Transition Metal Di-Chalcogenide van der Waals Heterostructures</td>
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<td>3349177</td>
<td>Zakhar Kudrynskiy, University of Nottingham, UK</td>
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Magnetic and semiconducting properties in van der Waals InSe layered crystals incorporating transition metals

34. Kabeer Jasuja, Indian Institute of Technology Gandhinagar, India

Synthesis of boron based two-dimensional materials by chemical exfoliation of layered metal borides

35. Anna Lapinska, Warsaw University of Technology, Poland

Temperature evolution of phonons in few-layer black phosphorus

36. Aleksey Kozikov, Manchester University, UK

Quantum dot light emitting diodes based on monolayer WSe2

37. Oleksandr Skrypka, University of Sheffield, UK

Indirect excitons in monolayer transition metal dichalcogenide heterostructures

38. Dominik Szcesniak, Qatar Foundation, Hamad bin Khalifa University, Qatar

Fermi level pinning of transition metal dichalcogenide monolayers in contact with metal

39. Nikos Papadopoulos, Kavli Institute, Netherlands

The effects of encapsulation on the opto-electronic properties of MoS2

40. Deniz Cakir, University of Antwerp, Belgium

Piezoelectric Properties of Two-Dimensional Materials

41. Magdalena Grzeszczyk, University of Warsaw, Poland

Resonant and non-resonant Raman scattering in few--layer MoTe2

42. Nourdine Zibouche, University of Oxford, UK

Quasiparticle Properties of Transition-Metal dichalcogenides

43. Engin Durgun, Bilkent University – UNAM, Turkey

GaN: From 3D to 2D single-layer crystal and its multilayer van der Waals solids

44. Hasan Sahin, University of Antwerp, Belgium

Structural and phononic characteristics of nitrogenated holey graphene

45. Hasan Sahin, University of Antwerp, Belgium

Optical properties of GaS-Ca(OH)2 bilayer heterostructure

46. Artem Pulkin, Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland

Spin- and Valley-Polarized Transport across Line Defects in Monolayer MoS2

47. Beata Szydlowska, Trinity College Dublin, Ireland

Highly Monolayer Enriched WS2 Dispersions Produced by Liquid Phase Exfoliation in Liquid Cascade.

48. Andrea Tomadin, NEST, Istituto Nanoscienze-CNR and Scuola Normale Superiore, Italy

Non-reciprocity, coupling, and amplification of electron currents in hydrodynamic graphene sheets

49. Malcolm Kennett, Simon Fraser University, Canada

Chiral symmetry breaking and the quantum Hall effect in monolayer graphene

50. Romain Danneau, Karlsruhe Institute of Technology, Germany

Confining supercurrent in graphene bilayer weak links

51. Pia Börner, University of Ulm, Germany

Preparation and characterization of 1T-TaSe2 monolayers and heterostructures with Graphene.

52. Hung-Chieh Tsai, National Central University, Taiwan
Reduction dynamics of functionalized graphene

53. Amaia Pesquera, Graphene, Spain
Investigation of substrate effects on graphene using Raman

54. Zahra Khatibi, Iran University of Science and Technology, Iran
Ab initio study on Modulation of electronic properties of commensurate G/hBN superlattices via in-plane strain

55. Bálint Fülöp, Budapest University of Technology and Economics (BME), Hungary
Point contacts in encapsulated graphene

56. Stéphane BERCIAUD, IPCMS - Université de Strasbourg and CNRS, France
Quantifying Photo-Induced Charge Transfer in Atomically Thin MoSe2/Graphene van der Waals Heterostructures

57. Heiko B. Weber, Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU), Germany
The decisive role of stacking fault networks for understanding transport in bilayer graphene

58. Dominik Legut, VSB Technical University of Ostrava, Czech Republic,
Xray natural linear dichroism of graphene and highly oriented pyrolytic graphite

59. Lukasz Golunski, Gdansk University of Technology, Poland
Fabrication and charge transport in thin layer CVD diamond/graphene heterojunction

60. AnandSharma Institut fuer Theoretische Physik, Universitaet Frankfurt, Germany
Quasi-particle velocity renormalization in graphene: non-perturbative approach.

61. Zhenbing Tan, Aalto University, Finland
Cross correlations in disordered, four-terminal graphene-ribbon conductor

62. MariaAugustyniak-Jablokow, Institute of Molecular Physics, Poland
Biototoxicity mechanisms of graphene oxide

63. Luisa M. Pastrana Martinez, Associate Laboratory LSRE/LCM, University of Porto, Portugal
Graphene-based materials applied in catalysis for a sustainable environment

64. Jacek Wychowaniec, University of Manchester, UK
Fine tuning properties of beta-sheet peptide - graphene derivatives hybrid hydrogels

65. Suk-Ho Choi, Kyung Hee University, Republic of Korea
Graphene/Si-nanowires heterojunction biosensors for selective and sensitive detection of DNA-DNA hybridization

66. Andrea Francesco, Verre University of Manchester, UK
Graphene oxide scaffolds for neuronal and glial cell cultures to promote peripheral nerve regeneration

67. Izabela Kaminska, TU Braunschweig, Germany
Energy transfer depends on the number of graphene layers and excitation energy

68. ZoranMarkovic, Polymer Institute, Slovakia
In vitro comparison of antibacterial activity of graphene, graphene oxide and carbon nanotube

69. Zuba-Surma Ewa, Jagiellonian University, Poland
Graphene-based substrate for mesenchymal stem cell growth and differentiation

70. Ilona Kalaszczynska, Medical University of Warsaw, Poland
The effect of mesenchymal stem cells on physicochemical properties of graphene oxide
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<td>Mario Reyes, Grupo Avance Chile, Chile</td>
<td>Graphene nanotubes doped with Cu / lactones: a new alternative to Zika virus control</td>
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<td>Andre Chwalibog, University of Copenhagen, Denmark</td>
<td>Effect of Bio-interaction Between Graphene and Bacteria Listeria monocytogenes or Salmonella enterica</td>
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<td>Graphene, Functionalized with Amino Acids Inhibits Development of Brain Cancer by a Gene Depended Manner</td>
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<td>Daniel Melendrez, University of Manchester, UK</td>
<td>Adsorption dynamics of biomimetic phospholipid membranes on graphene using the QCM-D technique</td>
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<td>3363813</td>
<td>Laura Fusco, University of Trieste, Italy</td>
<td>Effects of graphene and graphene oxide on skin keratinocytes</td>
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<td>3363834</td>
<td>Hulya Kaftefen, Karadeniz Technical University, Turkey</td>
<td>Au nanoparticle doped reduced graphene oxide-based electroactive biopolymer actuators</td>
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<td>3385156</td>
<td>Federica Valentini, Tor Vergata University, Italy</td>
<td>Biocompatibility of Graphene Oxide (GO): in vitro study compared with Single Wall Carbon Nanotubes (SWCNTs) and a case of study in neuroblastoma cell lines</td>
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<td>3456366</td>
<td>Francesco Colangelo, NEST, Istituto Nanoscienze-CNR and Scuola Normale Superiore, Italy</td>
<td>Straining 2D materials with patterned SiN membranes</td>
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<td>3352599</td>
<td>Miika Soikkeli, VTT, Finland</td>
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SCIENTIFIC PROGRAMME – TUESDAY, 14 JUNE 2016

08:30 – 17:00  THE REGISTRATION / HELPDESK IS OPEN, the Old Library
08:30 - 20:00  EXHIBITION SESSION, the Old Library
08:30 – 12:55  PLENARY SESSION, Auditorium Maximum, A.Mickiewicz room
13:00 – 15:00  LUNCH, University campus
14:00 – 15:00  FRINGE SESSION -2D Materials Journal – New horizon and updates from the editorial board, the Old Library
15:00 – 18:00  PARALLEL SESSIONS (Contributed Orals), ONE – A.Mickiewicz, TWO- room C, THREE – room D
Graphene Innovation Forum II. Commercialisation: The Route to Commercialisation (Invited Speakers) – the Old Library
18:00 – 20:00  POSTER SESSION, the Old Library
EXHIBITION SESSION, the Old Library

PLENARY SESSION, Auditorium Maximum, A.Mickiewicz room

08:30 - 09:05  Konstantin Novoselov
Recent progress in Van der Waals heterostructures
09:05 - 09:40  Taniguchi Takashi
Synthesis of high purity hBN and other 2D single crystals
09:40 - 10:15  Felice Torrisi
Large-scale Manufacturing of Graphene and Related Materials Inks for Flexible (Opto) electronics
10:15 - 10:35  COFFE BREAK
10:35 - 11:10  Hui-Ming Cheng
CVD Growth on Metals: Graphene and Beyond
11:10 - 11:45  Francesco Bonaccorso
Large scale production of graphene and other 2D crystals and their application for energy and (opto) electronics
11:45 - 12:20  Jong-Beom Baek
Two-Dimensional Networks for Energy Conversion and Storage
12:20 – 12:55  Kari Hjelt
From Research to Innovation

FRINGE SESSION, the Old Library

14:00- 15:00  2D Materials Journal – New horizon and updates from the editorial board

PARALLEL SESSIONS ONE, TWO & THREE

Parallel Session 1: Science and applications of graphene and new 2D materials - A.Mickiewicz room

15:00 – 15:20  Félicien Schopfer, Laboratoire National de Métrologie et d’Essais (LNE), France
An ideal and practical quantum Hall resistance standard in graphene devices

www.graphene-flagship.eu
15:20 – 15:40 Andor Kormanyos, University of Konstanz, Germany
Spin-orbit coupling and magnetoconductance oscillations in semiconducting monolayer transition metal dichalcogenides

15:40 – 16:00 Pablo Alonso-González, Universidad de Oviedo - CIC nanoGUNE, Spain
Ultra-confined acoustic THz graphene plasmons revealed by photocurrent nanoscopy

16:00 – 16:20 Jaehyun Moon, Electronics and Telecommunications Research Institute (ETRI), Korea
Integration of graphene pixel electrode and OLED panel for AM-OLED display applications

16:20 – 16:40 COFFEE BREAK

16:40 – 17:00 Marius Eich, ETH Zurich, Switzerland
Landau level crossings in bilayer Graphene

17:00 – 17:20 Juha Riikonen, Aalto University, Finland
Demonstration and simulation of dual graphene-GaSe heterojunction based tunable field-effect device

17:20 – 17:40 Yongjin Lee, ETH Zurich, Switzerland
Multicomponent Quantum Hall Ferromagnetism and Landau Level Crossing in Rhombohedral Trilayer Graphene

17:40 – 18:00 Antti Laitinen, Aalto University, Finland
Integer and fractional quantum Hall effect in suspended graphene in Corbino geometry

**Parallel Session 2: 2D materials, heterostructures and superstructures - C room**

15:00 – 15:20 Alexey Kaverzin, University of Groningen, Netherlands
Proximity induced exchange interaction in graphene-YIG devices

15:20 – 15:40 Saroj Dash, Chalmers University of Technology, Sweden
Long Distance Spin Transport in CVD Graphene and van der Waals heterostructures

15:40 – 16:00 Mengjian Zhu, University of Manchester, UK
Critical current of ballistic graphene Josephson junctions

16:00 – 16:20 Sei Morikawa, University of Tokyo, Japan
Manipulation of ballistic carrier trajectories in graphene by triangular shape npn junctions

16:20 – 16:40 COFFEE BREAK

16:40 – 17:00 Mark Lundeberg, ICFO-The Institute of Photonic Sciences, Spain
Thermoelectric detection of propagating plasmons in Graphene

17:00 – 17:20 Johannes Jobst, Leiden University, Germany
Studying interaction effects in graphene/boron nitride stacks by probing the unoccupied band structure

17:20 – 17:40 Renyan Zhang, University of Manchester, UK
Superconductivity in Potassium-Doped Metallic Polymorphs of MoS$_2$

17:40 – 18:00 Michael Man, Okinawa Institute of Science and Technology Graduate University, Japan
Imaging the flow of electrons in 2D semiconductor heterojunctions

**Parallel Session 3: Graphene- and 2D materials-based nanocomposites - D room**

15:00 – 15:20 Artur Ciesielski, University of Strasbourg & CNRS, France
A Supramolecular Strategy to Leverage the Liquid-Phase Exfoliation of Graphite into Graphene: Inks and Light-Responsive Hybrid Materials
15:20 – 15:40  Benjamin Weise, RWTH Aachen, Germany  
Melt- and wet-spinning of graphene-polymer nanocomposite fibres

15:40 – 16:00  Meganne Christian, CNR, France  
From synthesis to applications: size-controlled functional graphene foams

16:00 – 16:20  Mariusz Zdrojek, Warsaw University of Technology, Poland  
Graphene-polymer composite as a flexible and efficient sub-terahertz radiation absorber

16:20 – 16:40  COFFEE BREAK

**Parallel Session 3: Synthesis of graphene and new 2D materials - C room**

16:40 – 17:00  Jose A. Martin-Gago, ICMM-CSIC, Spain  
Organic Functionalization of Epitaxial Graphene on SiC

17:00 – 17:20  Volodymyr Khranovsky, Linköping University, Sweden  
Van der Waals epitaxy of metal oxides on graphene substrate

17:20 – 17:40  Zhikun Zheng, Dresden University of Technology, Germany  
Synthesis of Large-Area, Two-Dimensional Polymers at the Air-Water Interface

17:40 – 18:00  Jack Alexander-Webber, University of Cambridge, UK  
Nucleation of Al2O3 on large area CVD graphene by gaseous seed layers for stable, hysteresis-free field effect transistors

**Parallel Session 4: Graphene Innovation Forum II. Commercialisation: The Route to Commercialisation (Invited Speakers) - the Old Library**

15:00 – 15:20  James Baker, University of Manchester, UK  
Accelerating the commercialisation of graphene

15:20 – 15:40  Silvia Lazcano, Airbus Operations SL, France

15:40 -16:00  Ian Kinloch, Haydale, UK

16:00 – 16:20  Inigo Charola, Graphenea, Spain  
Graphenea Roadmap: Wafer Scale Integration

16:20 – 16:40  COFFEE BREAK

**Parallel Session 4: Graphene Innovation Forum II. Commercialisation: The Route to Commercialisation (Invited Speakers) - the Old Library**

16:40 – 17:00  (TBC)

17:00 – 17:20  (TBC)

17.20 – 18.00  Panel Discussion
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<td>Misa Andelkovic, Universiteit Antwerpen, Belgium</td>
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<td>3348536</td>
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<td>Jian Huang, University of Oxford, UK</td>
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<td>Mesoscopic transport fingerprints in the presence of strain-induced pseudo-Landau levels</td>
<td>Mikkel Settnes, Technical University of Denmark, Denmark</td>
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<td>Manipulating the electronic properties of graphene on the SiC(0001) surface via intercalation and molecular adsorption: a first-principles study</td>
<td>Nuala Mai Caffrey, Linköping University, Sweden</td>
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<td>Raman scattering in graphene deposited on GaN nanowires with different variations in nanowires height</td>
<td>Jakub Kierdaszuk, University of Warsaw, Poland</td>
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<td>Michal Inglot, Rzeszów University of Technology, Poland</td>
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<td>Zero modes of two-dimensional tilted Dirac fermions with vortices</td>
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Smart materials using functionalized graphene oxide

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Nitrogen doped reduced graphene oxide modified electrodes for ascorbic acid oxidation

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3334778 57. Guang Wang, National University of Defense Technology, China
Molecular Beam Epitaxy Growth of Atomically Ultrathin MoTe2 films
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<td>3348532</td>
<td>Pawel Ciepuliewski, Institute of Electronic Materials Technology, Poland</td>
<td>Epitaxial growth of 'freestanding' graphene layers on 6H-SiC(0001)</td>
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<td>Rafal Kozinski, Institute of Electronic Materials Technology, Poland</td>
<td>Prototype of graphene paper production machine</td>
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<td>3348673</td>
<td>Iwona Pasternak, Institute of Electronic Materials Technology, Poland</td>
<td>High-quality graphene grown on Ge(001)/Si(001) substrates</td>
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78. Piotr Kazmierczak, Faculty of Physics, University of Warsaw, Poland
„Freestanding” behavior of the graphene grown on the Ge(100)/Si(100) substrates
# Scientific Programme – Wednesday, 15 June 2016

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<td>12:20 – 12:55</td>
<td>Kosuke Nagashio</td>
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<td>WP Innovation – How to launch a start up</td>
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**Parallel Session 1: Science and applications of graphene and new 2D materials - A. Mickiewicz room**

15:00 – 15:20  Tomoki Machida, University of Tokyo, Japan  
Josephson effect in van der Waals junctions of 2D layered superconductors

15:20 – 15:40  Tymoteusz Ciuk, Institute of Electronic Materials Technology, Poland  
Graphene on SiC Hall effect sensor for industrial applications

15:40 – 16:00  Ziad Melhem, Oxford Instruments, UK  
Graphene quantum Hall resistance standard operating in a cryogen-free table-top system

16:00 – 16:20  Vito Di Noto, University of Padova, Italy  
Graphene-supported Fe, Co, Ni carbon nitride electrocatalysts for the ORR in alkaline environment

16:20 – 16:40  COFFEE BREAK

16:40 – 17:00  Kevin Schädlér, ICFO, Spain  
Graphene hybrid optomechanics

17:00 – 17:20  Kirill Arapov, Eindhoven University of Technology, Netherlands  
Graphene screen-printed radio-frequency identification devices

17:20 – 17:40  Burkay Uzlu, Bilkent University, Turkey  
Optoelectronics on paper

17:40 – 18:00  Johannes Binder, University of Warsaw, Poland  
Graphene under water: In-situ Raman of Solution Gated Field-Effect Transistors

**Parallel Session 2: Synthesis of graphene and new 2D materials - C room**

15:00 – 15:20  Marc Georg Willinger, Fritz-Haber-Institut der MPG, Germany  
Direct Observation of CVD Graphene Growth on Nickel, Copper and Platinum by In-Situ Scanning Electron Microscopy

15:20 – 15:40  Sten Vollebregt, Delft University of Technology, Netherlands  
A predefined wafer-scale CVD graphene deposition method requiring no transfer

15:40 – 16:00  Siamak Nakhaie, Paul-Drude-Institut für Festkörperelektronik, Germany  
Growth of large-area hexagonal boron nitride/graphene heterostructures on nickel films using molecular beam epitaxy

16:00 – 16:20  Francesco Reale, Imperial College London, UK  
Water-assisted synthesis of large-area WS2 monolayers

16:20 – 16:40  COFFEE BREAK

16:40 – 17:00  Steven Brems, Imec vzw, Belgium  
Investigation of millimeter sized CVD graphene islands grown on Al2O3(0001)/Pt(111) template wafers

17:00 – 17:20  Paula Marques, University of Aveiro, Portugal  
Graphene oxide paper with reduced pattern by electron beam lithography for cell tissue guidance

17:20 – 17:40  Piotr Kula, Lodz University of Technology, Poland  
Recent advances in the use of metallurgical graphene for hydrogen storage nanocomposites

17:40 – 18:00  Alexandr Talyzin, Umea University, Sweden
Graphene-related Materials for Hydrogen storage

Parallel Session 3: 2D materials, heterostructures and superstructures - D room

15:00 – 15:20 Nathalie Vermeulen, Vrije Universiteit Brussel, Belgium
New fabrication method and optical application possibilities for graphene integrated into silicon photonics

15:20 – 15:40 Christian Berger, University of Manchester, UK
Ultra-thin Graphene-Polymer Layered Composite Membranes for NEMS applications

15:40 – 16:00 Anna Katharina Ott, Cambridge Graphene Centre, University of Cambridge, UK
Magnetic and semiconducting properties in van der Waals InSe layered crystals incorporating transition metals

16:00 – 16:20 Nurbek Kakenov, Bilkent University, Turkey
Electrically tunable coherent perfect absorption of terahertz radiation in Graphene

16:20 – 16:40 COFFEE BREAK

16:40 – 17:00 Sam Shallcross, University of Erlangen-Nuremberg, Germany
How partial dislocations may make bilayer graphene both an insulator and a conductor

17:00 – 17:20 Fabien Vialla, ICFO, Spain
Photo-thermionic effect in graphene/WSe2/graphene heterostructures

17:20 – 17:40 Antonio Agresti, University of Rome Tor Vergata, Italy
Lithium-Neutralized Graphene Oxide in Perovskite Solar Cells: an effective way to improve the performance and the stability

17:40 – 18:00 Bora Karasulu, Eindhoven University of Technology (TU/e), Netherlands
Ab-initio Simulations of Atomic Layer Deposition (ALD) of Metal Oxides on Graphene

Parallel Session 4: Graphene Innovation Forum III. Standardisation of Graphene and other 2D materials (Invited Speakers) -- the Old Library

15:00 – 15:20 Norbert Fabricius, Karlsruhe Institute of Technology, GE
Status of the international standardization for graphene and related materials

15:20 – 15:40 Amaia Zurutuza, Graphenea, Spain
The importance of standards for industry

15:40 -16:00 Alexander Tzalenchuk, NPL Management Limited, UK
Standards = confidence

16:00 – 16:20 Matthieu Paillet, University Montpellier, FR
Counting graphene layers: from lab to standard

16:20 – 16:40 COFFEE BREAK

Parallel Session 4: Graphene Innovation Forum III. Standardisation of Graphene and other 2D materials (Invited Speakers) - the Old Library

16:40 – 17:00 Philippe De Bettignies, Horiba, France
Full-surface contactless characterization of graphene with Terahertz waves

17:00 – 17:20 Albert Redo-Sanchez, das-Nano, Spain (TBC)
Full-surface contactless characterization of graphene with Terahertz waves

17:20 – 18:00 Panel Discussion
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<td>Immobilizing Molecular Metal Dithiolene-Diamine Complexes into Carbon-Rich, Single-Layer 2D Supramolecular Polymers for Electrocatalytic H2 Production</td>
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<td>Current flow paths in deformed graphene: from quantum transport to classical trajectories in curved space</td>
<td>Nikodem Szpak, University Duisburg-Essen, Germany</td>
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<td>Tight-binding model and optical properties of monolayer and few-layer InSe and other III-VI 2D materials</td>
<td>Samuel Magorrian, National Graphene Institute, UK</td>
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<td>Electronic properties of twisted bilayer graphene</td>
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<td>Pseudodiffusive magnetotransport in bilayer graphene Corbino disks</td>
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<td>Jeongsu Lee, Institute for Theoretical Physics, Germany</td>
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<td>Quantum Nature of Edge Magnetism in Graphene Nanoribbons</td>
<td>Cornelie Koop, Institute for Theoretical Solid State Physics, RWTH Aachen University, Germany</td>
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<td>Hall field induced breakdown of the quantum Hall state in epitaxial graphene on silicon carbide</td>
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<td>Magnetism in two dimensional CrPnX</td>
<td>Bheemalingam Chittari, Sungkyunkwan University, Republic of Korea</td>
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<td>3349872</td>
<td>Magnetic field dependence of energy levels in biased bilayer graphene quantum dots</td>
<td>Diego Rabelo da Costa, Universidade Federal do Ceará and University of Antwerp, Brazil</td>
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<td>Symmetry protected topological phases in a multi-band 2D electron gas</td>
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          Ferromagnetism of graphene oxide

3352902  21. Hasan Sahin, University of Antwerp, Belgium
          Tuning the magnetic anisotropy in single-layer crystal structures

3352194  22. John Wallbank, Manchester University, UK
          Transverse Electron Focusing of ballistic electrons in graphene superlattices

3352216  23. Habib Rostami, Istituto Italiano di Tecnologia, Italy
          Theory of third harmonic generation in graphene: a diagrammatic approach

3352235  24. Pauline Simonet, ETH Zurich, Switzerland
          Coulomb drag between graphene and a GaAs electron gas

3352262  25. Yuta Asakawa, Institute of Industrial Science, University of Tokyo, Japan
          Observation of Subband Landau Level Crossings and Anticrossings in Bernal Trilayer Graphene

3352273  26. Anindita Sahoo, Indian Institute of Science, India
          Interfacial dipoles generated anomalous 1/f noise in graphene on SrTiO3 substrate

3352289  27. Khatuna Kakhiani, Istituto Nanoscienze del Cnr, NEST-Scuola Normale Superiore, Italy
          Mapping morphology dependence of graphene reactivity

3352295  28. Nils Freitag, RWTH Aachen, Germany
          Magnetically confined quantum dots in graphene revealed by scanning tunneling spectroscopy

3352316  29. Zhanna Devizorova, Moscow Institute of Physics and Technology, Russia
          Resonant electron scattering by a graphene antidot

3352526  30. Igor Gayduchenko, Moscow State Pedagogical University, Russia
          The investigation of the response of asymmetric graphene based devices to THz radiation

3352574  31. Dariusz Zebrowski, AGH University of Science and Technology, Poland
          The spin-valley transitions in the graphene quantum dots

3352783  32. Jaroslaw Sotor, Wroclaw University of Technology, Poland
          Black phosphorus based saturable absorbers for ultrafast fiber lasers

3352794  33. Hua Khee Chan, Newcastle University, UK
          Impact of atmospheric ageing on the 1/f noise in epitaxial graphene

3352894  34. Eoghan O’Connell, Bernal Institute, University of Limerick, Ireland
          Ion implantation into two-dimensional materials for electronic tailoring -- observing the behaviour of individual implants

3352934  35. Dona Thanuja Lakmali Galhena, University of Cambridge, UK
          Understanding capacitance variation in sub-nanometer pores by in situ tuning of interlayer constrictions

3352990  36. Matthias Kühne, Max-Planck-Institute for Solid State Research, Germany
          Lithiating Bilayer Graphene

3353003  37. Connolly Malcolm, University of Cambridge, UK
          Quantum dot formation in nanostructured bilayer graphene on SiC

3348745  38. Mattias Kruskopf, Physikalisch-Technische Bundesanstalt, Germany
          Tailoring new growth templates for epitaxial graphene on SiC by hydrogen substrate preparation
3348917  39. Martina Wanke, TU Chemnitz, Germany
Investigation of Intercalation of Epitaxial Graphene by Antimony

3349094  40. Clement Porret, IMEC, Belgium
Towards Large-Scale Growth of Graphene on Ge and Si wafers by Reduced-Pressure Chemical Vapor Deposition

3349126  41. Alba Centeno, GRAPHENEA, Spain
Large area multilayer graphene: properties and applications

3349189  42. Zhu-Jun Wang, Fritz Haber Institute of the Max Planck Society, Germany
The stacking sequence of graphene revealed by in-situ SEM observation of CVD growth and hydrogen etching

3349422  43. Muhammad Munir, National University of Science & Technology (NUST), Pakistan
High yield production of few layers graphene by prolonged sonication of thermally shocked graphite in acetonitrile

3349458  44. Roy Dagher, CNRS CRHEA, France
Offcut influence on CVD growth of graphene on SiC(0001) under hydrogen-argon atmosphere

3349462  45. Łukasz Kaczmarek, Lodz University of Technology, Poland
3D structure based on the large scale, High Strength Metallurgical Graphene

3349495  46. Gholamreza Yazdi, Linkoping University, Sweden
Conditions for quality graphene grown on SiC

3349576  47. Biljana Todorović-Marković, University of Belgrade, Serbia
Semi-transparent, conductive few layer graphene thin films exfoliated from highly oriented pyrolytic graphite

3349794  48. Alina Manshina, St. Petersburg State University, Russia
Direct laser-induced synthesis of thin rectangular hybrid Au-Ag/C flakes with orthorhombic graphite structure

3349846  49. Rajani Kunnathodi Vijayaraghavan, Dublin City University, Ireland
Thickness controlled growth of single- to few-layer graphene films with excellent anticoagulation properties: Temperature plays a key role

3349868  50. Neeraj Mishra, Center for Nanotechnology Innovation @ NEST, Istituto Italiano di Tecnologia, Italy
Rapid and catalyst-free van der Waals epitaxy of graphene on hBN

3349945  51. Michael Schmitz, RWTH Aachen University, Germany
High-quality monolayer and bilayer CVD graphene devices fabricated by a dry transfer method

3349976  52. Aleksandra Krajewska, Institute of Electronic Materials Technology, Poland
Charge transfer and electrical properties of Au-doped CVD graphene

3352088  53. Stefan Link, MPI for Solid State Research, Germany
Intercalation of Gadolinium underneath Graphene on SiC(0001)

3352102  54. Geon-Hyoun Park, Pohang University of Science and Technology, Republic of Korea
Andreev reflection via quantum Hall edge states in graphene hybrid devices

3352220  55. Bagila Baimbetova, K.I.Satpaev Kazakh National Research Technical University, Kazakhstan
Prospective of use graphene received via aromatic hydrocarbons for power sources applications

3352259  56. Michal Woluntarski, Institute of Electronic Materials Technology, Poland
Influence of stirring conditions on the efficiency of graphite oxide exfoliation
57. Mindaugas Lukosius, IHP, Germany
CVD Graphene synthesis on 200 mm Ge/Si (100) substrates

58. Sukanya Dhar, Indian Institute of Science, India
Evolution of Colossal Sized MoS2 Islands by Controlling Nucleation Density: Physico-Chemical Modelling and Supersaturation Control

59. Paweł Palczynski, Imperial College, UK
Photoluminescence and Raman studies of CVD grown WS2 flakes using different precursors

60. Tomasz Cebo, Cambridge University, UK
Multilayered graphene gyroids prepared on nickel scaffold via chemical vapour deposition

61. Abhay Shivayogimath, Technical University of Denmark, Denmark
Growth of Multilayer Graphene Domains on Copper through Catalytic Thermal Decomposition of Silicon Carbide

62. Piotr Ciochon, Institute of Physics, Jagiellonian University, Poland
Optimization of the SiC surface graphitization

63. Alexander Lebedev, Ioffe Institute, Russia
Graphene produced by thermal destruction of SiC substrates: gas- and bio-sensors

64. Karim Elgammal, KTH Royal Institute of Technology, Sweden
Density functional theory calculations of graphene-based humidity and carbon dioxide sensors: effect of silica and sapphire substrates

65. Robin Dolleman, Kavli Institute of Nanoscience, Netherlands
Graphene squeeze-film pressure sensors

66. Hayk Zakaryan, Yerevan State University, Armenia
Sensitivity of graphene humidity sensors

67. Seung Joo Lee, Dongguk University, Republic of Korea
Gate-voltage tunable spin transport in ferromagnetic graphene vertical heterostructures

68. André Dankert, Chalmers University of Technology, Sweden
Spin polarized transport in MoS2

69. Susanne Irmer, University of Regensburg, Germany
Tight-binding description of spin-orbit coupling in graphene due to adatoms

70. Josep Ingla-Aynés, Zernike Institute for Advanced Materials University of Groningen, Netherlands
Directional control of spin currents in hBN encapsulated bilayer graphene

71. Siddhartha Omar, RUG, Netherlands
Spin dependent 1/f noise in graphene detected via cross-correlation

72. Gmitrza Martin, University of Regensburg, Germany
Graphene on transition-metal dichalcogenides: A platform for proximity spin-orbit physics and optospintronics

73. Madhushankar Bettadahalli Nandishaiah, University of Groningen, Netherlands
Study of spin and valley based electronics in TMD as well its proximity induced spin orbit coupling in Graphene

74. Leandro Lima, Fluminense Federal University, Brazil
Electronic transport in the quantum spin Hall state due to the presence of adatoms in graphene
Fringe session: Women in Graphene (Invited Speakers) - the Old Library
19:00 - 20:00  Eva Andrei, Rutgers University, US
               Claudine Hermann, Honorary Professor of Physics at Ecole Polytechnique, Fra
               Networking of women scientists – Examples from EU projects
# Scientific Programme – Thursday, 16 June 2016

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<th>Event</th>
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<td>08:30 – 17:00</td>
<td>The Registration / Helpdesk is open, the Old Library</td>
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<tr>
<td>08:30 - 20:00</td>
<td>Exhibition Session, the Old Library</td>
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<tr>
<td>08:30 – 12:55</td>
<td>Plenary Session, Auditorium Maximum, A. Mickiewicz room</td>
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<td>12:55 – 15:00</td>
<td>Lunch, University campus</td>
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<tr>
<td>14:00 – 15:00</td>
<td>Fringe Session – WP Health and Environment – Graphene Ethics and Toxicity, the Old Library</td>
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<tr>
<td>15:00 – 16:20</td>
<td>Parallel Sessions (Contributed Orals), ONE – A. Mickiewicz, TWO - room C, THREE – room D</td>
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<td>Session Nature Symposium on Biomedicine Applications (Invited Speakers) – the Old Library</td>
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<tr>
<td>16:40 – 18:40</td>
<td>Poster Session, the Old Library</td>
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<td>Exhibition Session, the Old Library</td>
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<tr>
<td>19:30 – 24:00</td>
<td>Conference Dinner, the Kubicki Arcades (Royal Castle)</td>
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### Plenary Session, Auditorium Maximum, A. Mickiewicz room

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<td>08:30</td>
<td>Tony Heinz</td>
<td>Atomically thin semiconductors and heterostructures</td>
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<tr>
<td>09:05</td>
<td>Atac Imamoglu</td>
<td>Fermi-polaron-polaritons in monolayer MoSe2 embedded in a _ber-cavity</td>
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<td>09:40</td>
<td>Alberto Morpurgo</td>
<td>Strong electron-electron interaction and spin-orbit effects in graphene</td>
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<td>10:15</td>
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<td>COFFEE BREAK</td>
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<tr>
<td>10:35</td>
<td>Frank Koppens</td>
<td>Opto-electronics with 2d materials: science and prototypes</td>
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<td>11:10</td>
<td>Bart van Wees</td>
<td>Spintronics in graphene: Current status and future prospects</td>
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<tr>
<td>11:45</td>
<td>Tony Low</td>
<td>Theoretical exploration beyond graphene plasmonics</td>
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<td>12:20</td>
<td>John Wallbank</td>
<td>Transverse Electron Focusing of ballistic electrons in graphene superlattices</td>
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<td>Fringe Session – Work Package Health and Environment – Graphene Ethics and Toxicity, the Old Library</td>
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### Parallel Sessions One, Two & Three

Parallel Session 1: Science and applications of graphene and new 2D materials/ application - A. Mickiewicz room

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<td>15:00 – 15:20</td>
<td>Mohammad Nazmul Karim, National Graphene Institute, University of Manchester, UK</td>
<td>Inkjet Printing of Highly Conductive Graphene-based Composite Inks for Wearable Electronic Applications</td>
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<td>15:20 – 15:40</td>
<td>Chiara Grotta, Imperial College of London, UK</td>
<td>3D printing of MoS2 with three blocks copolymers</td>
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<td>15:40 – 16:00</td>
<td>Grzegorz Sobon, Wroclaw University of Technology, Poland</td>
<td>Prototype of a graphene-based ultrafast fiber laser</td>
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<td>16:00 – 16:20</td>
<td>Igor Baburin, Technische Universitaet Dresden, Germany</td>
<td>Hydrogen storage by physisorption in nanostructured graphene-based materials: understanding the limits</td>
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<td>16:20 – 16:40</td>
<td>COFFEE BREAK</td>
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<td><strong>Parallel Session 2:</strong> 2D materials, heterostructures and superstructures - C room</td>
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<td>15:00 – 15:20</td>
<td>Daniel Rodrigo, Ecole Polytechnique Federale de Lausanne, Switzerland</td>
<td>Graphene as enabling material for infrared plasmonic biosensors</td>
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<td>15:20 – 15:40</td>
<td>Xiaohui Tang, Universite catholique de Louvain (UCL), Belgium</td>
<td>Graphene for gas sensor applications</td>
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<td>15:40 – 16:00</td>
<td>Davit Ghazaryan, the University of Manchester, UK</td>
<td>Graphene based tunnelling transistors</td>
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<td>16:00 – 16:20</td>
<td>Mehrdad Shaygan, Advanced Microelectronic Center Aachen (AMICA), AMO GmbH, Germany</td>
<td>Fabrication and characterization of metal-insulator-graphene diodes for microwave and THz application</td>
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<td>16:20 – 16:40</td>
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<td><strong>Parallel Session 3:</strong> Science and applications of graphene and new 2D materials/ characterization - D room</td>
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<td>15:00 – 15:20</td>
<td>Pawel Michalowski, Institute of Electronic Materials Technology, Poland</td>
<td>Secondary Ion Mass Spectroscopy depth profiling of hydrogen-intercalated graphene on SiC</td>
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<td>15:20 – 15:40</td>
<td>Mauro Tortello, Politecnico di Torino, Italy</td>
<td>Nanoscale Characterization of the Thermal Conductivity of Supported Graphite Nanoplates, Graphene and Few-layer Graphene</td>
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<td>15:40 – 16:00</td>
<td>Marcin Mucha-Kruczynski, University of Bath, UK</td>
<td>Optical properties of graphene/hBN heterostructures</td>
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<td>16:00 – 16:20</td>
<td>Philipp Tonndorf, University of Muenster, Germany</td>
<td>Single-photon Emission from Localized Excitons in Monolayer WSe2</td>
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<td><strong>Parallel Session 4:</strong> NATURE SYMPOSIUM on BIOMEDICAL APPLICATIONS (Invited Speakers) - the Old Library</td>
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<td>15:00 – 15:05</td>
<td>Kostas Kostarelos, The University of Manchester, UK; Maria Maragkou, Nature Materials, UK; Luke Fleet, Nature Physics, UK</td>
<td>Welcome</td>
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<td>15:05 – 15:30</td>
<td>Luisa Torsi, Universita degli Studi di Bari &quot;A. Moro&quot;, Italy</td>
<td>High performing printable bio-electronic sensors</td>
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<td>15:55 – 16:20</td>
<td>Owen Guy, Swansea University, UK</td>
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Lab on Chip Graphene Sensors for Point Of Care Diagnostics

16:20 – 16:35  COFFEE BREAK

16:35 – 17:00  Tsuyoshi Sekitani, Osaka University, Japan
Ultrasoft materials and electrodes for implantable bio-signal monitoring system

17:00 – 17:25  Jose A. Garrido, ICN2, Spain
Graphene flexible electronics for neuroprosthetics

17:25 – 17:50  Daniel Chew, GlaxoSmithKline, UK
Bioelectronic medicine

17:50 – 18:00  Conclusions

POSTER SESSION

3332593  1. Evgeniy Ponomarev, University of Geneva, Switzerland
Ambipolar light-emitting transistors on chemical vapor deposited monolayer MoS2

3333704  2. Johannes Aprojanz, University of Hannover, Germany
Electron Interference in Ballistic Graphene Nanoconstrictions

3334453  3. Maciej Rogala, University of Lodz, Poland
Humidity dependent memristive behavior of graphene oxide

3335618  4. Suk-Ho Choi, Kyung Hee University, Republic of Korea
Graphene/Si-quantum-dot resonant tunneling diodes and light-induced negative differential resistance

3335631  5. Suk-Ho Choi, Kyung Hee University, Republic of Korea
Fabrication and device characterization of single Si-nanowire/graphene-nanoribbon lateral-type heterojunctions

3344864  6. Peter Rakyta, Eötvös Loránd University, Hungary
Magnetic field oscillations of the critical current in long ballistic graphene Josephson junctions

3347397  7. Andrei Vorobiev, Chalmers University of Technology, Sweden
Graphene field-effect transistors on ferroelectric substrates

3347446  8. Arturo Tagliacozzo, Università di Napoli "Federico II", Italy
Hysteretic collapse and revival of the Josephson supercurrent in Al contacted graphene on SiC

3348636  9. Karina Andrea Guerrero Becerra, Istituto Italiano di Tecnologia, Italy
Resonant tunneling and the quasiparticle lifetime in graphene/ boron nitride / graphene heterostructures

3348814  11. Hiske Overweg, ETH Zurich, Switzerland
Oscillating magnetoresistance in a bilayer graphene n-p-n junction

3348827  12. Simon Zihlmann, University of Basel, Switzerland
Superconducting tunnel spectroscopy of graphene

3348850  13. Peter Makk, University of Basel, Switzerland
P-n junction based devices in ultra-clean graphene

3348966  14. Mohamed Saeed Elsayed, Chair of High Frequency Electronics, Germany
A Graphene-based quantum capacitance varactor for millimeter-Wave applications
15. Florian Wendler, Technische Universität Berlin, Germany, Towards a graphene-based Landau level laser

16. David Horsell, University of Exeter, UK, Thermoacoustic generation and control in graphene field-effect transistors

17. Patrick Herlinger, Max Planck Institute for Solid State Research, Germany, Graphene Based van der Waals Heterostructures for Hall Sensing

18. Marco Angelo Giambra, University of Palermo, Italy, Fabrication and analysis of the layout impact in Graphene Field Effect Transistors (GFETs)

19. Nojoon Myoung, University of Ioannina, Greece, Graphene-on-silicon infrared photodetectors: tuning the guided-mode resonances with the graphene plasmons

20. Yang Hao, Queen Mary, University of London, UK, Negative Impedance Converter Based on Graphene Field-Effect Transistor

21. Yevgeniy Korniyenko, Chalmers University of Technology, Sweden, Resonant second harmonic generation in a ballistic graphene transistor with an AC driven gate

22. Henrik Sandberg, VTT Technical Research Centre of Finland Ltd, Printed graphene antennas on flexible substrates for low cost radio frequency applications

23. Grzegorz Gawlik, Institute of Electronic Materials Technology, Poland, Electrochemical etching of graphene by salted water

24. Dong Zhang, Tongji University, China, Graphene based structural supercapacitor

25. Alexey Klechikov, Umea University, Sweden, Hydrogen storage in high surface area graphene scaffolds

26. George Volonakis, University of Oxford, UK, Perovskite and graphene interfaces from first-principles

27. Riccardo Farchioni, NEST-Istituto Nanoscienze del Cnr; University of Pisa, Italy, Flexural phonons in graphene: coherency and anharmonicity by classical molecular dynamics

28. Anaguli Abulizi, Sabanci University, Turkey, Functionalized graphene based materials for high performance Li-ion battery anodes

29. Monika Michalska, Institute of Electronic Materials Technology, Poland, Novel graphene oxide/spinel oxide (LiMn2O4, Li4Ti5O12) nanocomposites and their application in lithium ion batteries

30. Emre Biçer, Sabanci University, Turkey, Development of a novel graphene and carbon fiber hybrids based electrocatalyst for PEM fuel cells

31. Michele Midrio, CNIT Università degli Studi di Udine, Italy, Light detection in double graphene layer coated waveguides

32. Lyudmila Turyanska, the University of Nottingham, UK, Control of carrier concentration and mobility in a hybrid graphene-quantum dot phototransistor

33. Krzysztof Piskorski, Institute of Electron Technology, Poland, Accurate determination of band offsets at the semiconductor – dielectric interface using graphene gated capacitors
34. Jaroslaw Sotor, Wroclaw University of Technology, Poland
Broadband saturable absorbers based on graphene/PMMA composite for ultrashort pulse generation in 1550 -- 2100 nm spectral range

35. Hakan Selvi, the University of Manchester, UK
Metal-graphene plasmonic multicolour photodetector

36. Zhuang ZHAO, Cambridge Graphene Center, UK
Active control of absorption in a hybrid graphene-microfiber device

37. Shakil Awan, Plymouth University, UK
RF Transport Electromagnetic Properties of Graphene

38. Nadezhda Nebogatikova Rzhanov, Institute of Semiconductor Physics, Russia
Composite graphene-based dielectric layers

39. Subimal Majee, Uppsala University, Sweden
Doping effect on the opto-electrical properties of printed graphene transparent conductive films

40. Daniel Olaya, Universidad de los Andes, Colombia
Graphene layered materials for thermoelectric applications

41. Dmitry Kvashnin, National Institute of Science and Technology "MISiS", Russia
Formation of graphene membranes with ultrahigh stiffness by point defects generation

42. Selmiye Alkan Gürsel, Sabanci University, Turkey
Development of graphene supported platinum nanoparticles for polymer electrolyte membrane fuel cells

43. Mario Reyes, Grupo Avance Chile, Chile
Graphene nanotubes doped with Cu powder obtained by thermionic source substitution carbon hydrates. (Patent pending)

44. Yolanda Belaustegui, TECNALIA, Spain
Electroosorption performance of graphene/oxide metal electrodes for capacitive deionization

45. Edwin Dollekamp, University of Twente, Netherlands
Electrokinetics of water between graphene and mica

46. René Hoffmann, Fraunhofer Institute for Applied Solid State Physics IAF, Germany
Wafer-scale graphene on aluminium nitride as an electrode for electroacoustic resonators

47. Takeshi Fujii, Fuji Electric Co., Ltd., Japan
Interface engineering in a metal/p-SiC junction by insertion of graphene layers

48. Andre Beyer, Bielefeld University, Germany
Gas permeation through carbon nanomembranes

49. Axel Eriksson, Chalmers University of Technology, Sweden
Nonlinear tunable electromechanical graphene metamaterials

50. Ivan Shteleuik, Linköping University, Sweden
Back-gated Schottky barrier transistor based on graphene/SiC junctions for electrochemical detection of heavy metals

51. Anna Jedrzejewska, West Pomeranian University of Technology, Poland
Carbon nanospheres/graphene composites for CO2 adsorption
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<th>Paper ID</th>
<th>Authors</th>
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<tr>
<td>3349660</td>
<td>Pim Voorthuijzen, ASML, Netherlands</td>
<td>Large aspect ratio freestanding multilayer graphene thin films</td>
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<td>3349710</td>
<td>Gerard Verbiest, RWTH Aachen, Germany</td>
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<td>3352127</td>
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<td>Maria Sokolikova, Imperial College London, UK</td>
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<td>3347341</td>
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<td>The electronic structure of graphene on Ge(001)/Si(001) substrates experimental and theoretical studies</td>
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<td>3348544</td>
<td>Klaus Pierz, Physikalisch-Technische Bundesanstalt, Germany</td>
<td>Vanishing resistance anisotropy of ultra-smooth epitaxial graphene on SiC</td>
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<td>3348783</td>
<td>Hans He, Chalmers University of Technology, Sweden</td>
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<td>Tibor Lehnert, University of Ulm, Germany</td>
<td>Imaging MoS2 - monolayers at 30 kV in a Cc/Cs - corrected TEM</td>
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<td>3348953</td>
<td>Bruno Carvalho, Universidade Federal de Minas Gerais, Brazil</td>
<td>Intervalley Double-Resonance Raman Scattering in 2D Molybdenum Disulfide</td>
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<td>3349524</td>
<td>Michal Kozubal, Institute of Electronic Materials Technology, Poland</td>
<td>Imaging ellipsometry supported by Raman spectroscopy, SEM and AFM as a way of standardization of epitaxial graphene characterisation</td>
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<td>3352317</td>
<td>Sebastian Funke, Accurion GmbH, Germany</td>
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<td>3352912</td>
<td>Andreas Johansson, University of Jyväskylä, Finland</td>
<td>The nature of two-photon induced graphene oxide</td>
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<td>Costas Galiotis, Foundation of Research and Technology Hellas, University of Patras, Greece</td>
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<td>3458114</td>
<td>John Parthenios, Foundation of Research and Technology Hellas</td>
<td>Tip Enhanced Raman Scattering in bilayer MoS₂</td>
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<td>3358008</td>
<td>Ilya Goykhman, Cambridge Graphene Centre, University of Cambridge, UK</td>
<td>Electrically tunable TMD-based tunneling light emitting diodes</td>
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SCIENTIFIC PROGRAMME – FRIDAY, 16 JUNE 2016

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<td>09:05 - 12:00</td>
<td>EXHIBITION SESSION, the Old Library</td>
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<td>09:05 – 11:45</td>
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<td>11:45 – 12:55</td>
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<td>12:55 – 15:00</td>
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PLENARY SESSION, Auditorium Maximum, A.Mickiewicz room

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<td>Alberto Bianco</td>
<td>Enzymatic degradation of graphene and 2D materials</td>
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<td>09:40 - 10:15</td>
<td>Henrik Hillborg</td>
<td>Electric Field Grading Material Based on Thermally Reduced Graphene Oxide Dispersed in Silicone Rubber</td>
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<td>COFFE BREAK</td>
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<td>10:35 - 11:10</td>
<td>Siva Bohm</td>
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<td>11:10 - 11:45</td>
<td>Lucia Delogu</td>
<td>Immune cell impact of different shaped and functionalized graphenes: graphene oxide versus amino functionalized graphene</td>
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