

TENTATIVE PROGRAM

Wednesday October 14, 2015

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| 08:00-09:00 | Registration | |
| 09:00-09:30 | Opening Ceremony | |
| 09:30-10:10 | Thomas H. Cruikshank (USA) <i>The Commercialization of a Transformative Material and its Prospects for Economic, Social and Environmental Prosperity in the 21st Century</i> | K |
| 10:10-10:40 | Coffee Break & Poster session | |
| 10:40-11:20 | Seongjun Park (Samsung Advanced Institute of Technology (SAIT), Korea) <i>Two dimensional materials for electronic devices</i> | K |
| 11:20-12:00 | Chun-Yung Sung (Lockheed Martin, USA) <i>Graphene and New 2D Materials: Industry Needs and Commercialization</i> | K |
| 12:00-13:00 | Lunch | |
| 13:00-13:30 | Poster Session | |
| 13:30-14:10 | Antonio H. Castro Neto (National University of Singapore, Singapore) <i>2D Materials: Standards, Science and Technology</i> | K |
| 14:10-14:40 | Michel Côte (Université de Montréal, Canada) <i>Infrared spectroscopy of disordered graphene: a theoretical analysis</i> | I |
| 14:40-14:55 | Rene Cote (Universite de Sherbrooke, Canada) <i>Optical properties of Wigner crystal and helical state in bilayer graphene</i> | O |
| 14:55-15:10 | Junji Haruyama (Aoyama Gakuin University, Japan) <i>Spin-based phenomena in Graphene and Few-layer Black Phosphorus</i> | O |
| 15:10-15:25 | Kenjiro Gomes (University of Notre Dame, United States) <i>Quasiparticle interference of massless Dirac Fermions in molecular graphene</i> | O |
| 15:25-15:40 | Zetian Mi (McGill University, Canada) <i>Transition metal dichalcogenides: Two-dimensional materials for next generation semiconductor lasers"</i> | O |
| 15:40-15:55 | Marcos Pimenta (Universidade Federal de Minas Gerais, Brazil) <i>Excitons and exciton-phonon interactions in 2D MoS₂, WS₂ and WSe₂ studied by resonance Raman spectroscopy</i> | O |
| 15:55-16:25 | Coffee Break & Poster session | |
| 16:25-16:55 | Chun Ning Lau (University of California, USA) <i>Quantum Transport in High Mobility Few-Layer Atomic Membranes</i> | I |
| 16:55-17:10 | Stephan Roche (ICN2, Spain) - Quantum transport <i>Fundamentals of Charge Transport in Polycrystalline graphene and hybrids</i> | O |
| 17:10-17:25 | Antoine Khater (Université du Maine, France) <i>Theory and computation of the electronic band structures and optical absorption spectra for incommensurate twisted few-layers Graphene systems</i> | O |
| 17:25-17:55 | Byung Hee Hong (SNU & Graphene Square, Korea) <i>Graphene for Wearable Electronics: Challenges and Opportunities</i> | I |
| 17:55-18:25 | Marija Drndic (University of Pennsylvania, USA) <i>Nanostructures in two-dimensional materials sculpted with electrons and applications</i> | I |

19:00 Cocktail Networking Dinner (Centre Mont Royal – Level 3)

Sponsored by



Keynote (Plenary) – 40 minutes

Invited (Plenary & Parallel workshops) - 30 minutes

Invited (Industrial Forum) – 25 minutes

Oral – 15 minutes

Thursday October 15, 2015 – Industrial Forum

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| 08:30-09:10 | Harry Zervos (IDTECHEX, USA) <i>Graphene - markets, applications and the latest commercialisation progress</i> | K |
| 09:10-09:50 | Bor Z. Jang (Angstrom Materials, USA) <i>Graphene Commercialization Challenges and Opportunities: A Graphene Producer's Perspectives</i> | K |
| 09:50-10:30 | Gary Economo (Grafoid Inc., Canada) <i>Graphene's Commercialization Begins with a Novel Production Process and a Collaborative Industrial Strategy that leads to Affordable, Innovative Applications: The Grafoid Story</i> | K |
| 10:30-11:30 | Coffee Break & Poster session | |
| 11:30-12:10 | Siva Bohm (Tata Steel Research & Development, UK) <i>Graphene based Coatings against Corrosion</i> | K |
| 12:10-12:40 | Frank Koppens (ICFO - Institut de Ciències Fotòniques, Spain) <i>Prototype demonstrators of graphene photodetector applications and future prospects</i> | I |
| 12:40-13:40 | Lunch |  |
| 13:40-14:00 | Poster Session | |
| Production & Standardization (parallel workshop) | | |
| 14:00-14:25 | Norbert Fabricius (KIT, Germany) <i>International Standardization on Graphene and related Materials</i> | I |
| 14:25-14:50 | Mike Leibowitz (NEMA, USA) <i>Graphene Standards: Building a Bigger Business</i> | I |
| 14:50-15:05 | Maxime Bayle (Université de Montpellier, France) <i>Combined Raman spectroscopy and reflectance measurements to define a standardized method to determine the number of graphene layers for few-layer graphene</i> | O |
| 15:05-15:20 | Shan Zou (National Research Council Canada, Canada) <i>NanoCarbon Metrology: Solution Processed Graphene Films</i> | O |
| 15:20-16:00 | Coffee Break & Poster session | |
| 16:00-16:25 | Gordon Chiu (Grafoid Inc., Canada) <i>Mesograp and its Derivatives from Raw Graphite Ore</i> | I |
| 16:25-16:50 | Jesus de la Fuente (Graphenea, Spain) <i>The road to commercialisation of Graphene nanomaterials</i> | I |
| 16:50-17:15 | Ray Gibbs (Haydale Graphene Industries, UK) <i>Commercialisation of Graphene- lessons learned so far</i> | I |
| 17:15-17:30 | Jens Kroeger (Raymor Industries, Canada) <i>Production and characterization of graphene nanoplatelets by different industrial processes</i> | O |
| 17:30-17:45 | Elahe Jabari (University of Waterloo, Canada) <i>Micro-scale Laser-assisted Additive Manufacturing of Graphene</i> | O |
| Energy (parallel workshop) | | |
| 14:00-14:25 | Federico Rosei (INRS–EMT, Université du Québec, Canada) <i>Carbon nanostructures and their use in biomedical and energy applications</i> | I |
| 14:25-14:50 | Aiping Yu (University of Waterloo, Canada) <i>Graphene development for supercapacitor</i> | I |
| 14:50-15:15 | Gregory Pognon (THALES Research & Technology, France) <i>Graphene-based supercapacitors fabricated by an innovative dynamic air-brush deposition technique</i> | I |
| 15:15-15:30 | Shuhui Sun (Institut National de la Recherche Scientifique (INRS), Canada) <i>Graphene-based Nanocomposites for Energy Storage and Conversion in Lithium Batteries, Sodium Batteries, and Fuel Cells</i> | O |
| 15:30-16:00 | Coffee Break & Poster session | |
| Worldwide Initiatives & Priorities (parallel workshop) | | |
| 16:00-16:25 | Carla Miner (SDTC, Canada) | I |
| 16:25-16:50 | Byung Hee Hong (SNU & Graphene Square, Korea) | I |
| 16:50-17:15 | Masataka Hasegawa (AIST, Japan) <i>Development of graphene and related materials in TASC</i> | I |
| 17:15-17:40 | Tony Ling (Jestico + Whiles, UK) <i>Architecture responds to Science: University of Manchester's new National Graphene Institute</i> | I |
| 17:40-18:05 | E.A. Thoroh de Souza (Mackenzie Presbyterian University, Brazil) <i>Recent Developments in Graphene and Black Phosphorus at MackGraphe</i> | I |

Applications (parallel workshop)

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| 14:00-14:25 | Mark Gallerneault (ALCERECO Inc., Canada) <i>Scaling a Graphene-Based Product Towards Commercialization: From Concept to Supply</i> | I |
| 14:25-14:50 | Elena Polyakova (Graphene Laboratories Inc, USA) <i>3D Printing with Graphene-Enhanced Materials: Methods and Applications</i> | I |
| 14:50-15:15 | Hua Zhang (MSE-NTU, Singapore) <i>Synthesis and Applications of Novel Two-dimensional Nanomaterials</i> | I |
| 15:15-15:30 | Jérôme Borme (International Iberian Nanotechnology Laboratory - INL , Portugal) <i>Biosensing using wafer-scaled electrolyte-gated graphene field-effect transistors</i> | O |
| 15:30-16:00 | Coffee Break & Poster session | |
| 16:00-16:25 | Daniel Schall (AMO GmbH, Germany) <i>The enabling role of Graphene in integrated optics</i> | I |
| 16:25-16:40 | Pierre Legagneux (Thales R&T, France) <i>30 GHz optoelectronic mixing with graphene based coplanar waveguides</i> | O |
| 16:40-16:55 | Soo Young Kim (Chung-Ang University, Korea) <i>Doped graphene for optoelectronic devices</i> | O |
| 16:55-17:10 | Minmin Zhu (Nanyang Technological University, Singapore) <i>Wafer-Scale Light-weight and Flexible Graphene-Based Broadband Modulator with Ultrafast Switching Time</i> | O |
| 17:10-17:25 | Carlos Ruiz-Vargas (ETH Zürich, Switzerland) <i>Transfer length investigation in graphene-contacted 2D nanoparticle networks</i> | O |
| 17:25-17:40 | Ken Bosnick (NRC -- NINT, Canada) <i>Graphene Nanocomposites for High-Barrier Applications</i> | O |
| 17:40-17:55 | Natallia Shanahan (University of South Florida, United States) <i>Investigation of Physical Properties of Graphene Nanoplatelet Cement in Concrete Elements Susceptible to Cracking</i> | O |

Friday October 16, 2015

Parallel Workshop 1 - Materials & Devices Characterization

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| 08:30-09:00 | Gilbert Walker (University of Toronto, Canada) <i>Mid-infrared Polaritonic Coupling between Boron Nitride Nanotubes and Graphene</i> | I |
| 09:00-09:30 | Berardi Sensale Rodriguez (University of Utah, USA) <i>Terahertz properties and applications of graphene</i> | I |
| 09:30-09:45 | Paola Russo (University of Waterloo, Canada) <i>Femtosecond laser synthesis of luminescent graphene quantum dots</i> | O |
| 09:45-10:00 | Samantha Stambula (McMaster University, Canada) <i>Uncovering the structure of N-doped graphene with Pt atoms using high resolution electron microscopy and EELS</i> | O |
| 10:00-10:30 | Coffee Break & Poster session | |
| 10:30-10:45 | Shrikant Maktedar (Central University of Gujarat, India) <i>Understanding the Chemistry of Graphene with Robust Functionalization</i> | O |
| 10:45-11:00 | Pierre Levesque (Université de Montréal, Canada) <i>The Key to Speed-Up Graphene Chemical Vapor Deposition</i> | O |
| 11:00-11:15 | Nima Nateghi (Polytechnique Montreal, Canada) <i>Growth of III-V Semiconductors on Graphene</i> | O |
| 11:15-11:30 | Andrea Cabrero-Vilatela (University of Cambridge, United Kingdom) <i>Monolayer Graphene Formation on Transition Metal Catalysts</i> | O |
| 11:30-11:45 | Zheng Liu (Nanyang Technological University, Singapore) <i>Synthesis, Characterization and Potential Applications of Novel Two-Dimensional Atomic Layers</i> | O |
| 11:45-12:00 | Thaneshwor Kaloni (University of Manitoba, Canada) <i>Large Enhancement and Tunable Band Gap in Silicene by Small Organic Molecule Adsorption</i> | O |
| 12:00-12:30 | Ting Yu (Nanyang Technological University, Singapore) <i>Tuning Electronic and Valley Structures of Two-dimensional Semiconductors by Applying Electrical and Magnetic potentials</i> | I |

Parallel Workshop 2 - Chemistry, Biosensors & Energy

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| 08:30-09:00 | Michael Hilke (McGill University, Canada) <i>Graphene based devices for very high resolution imaging of solutions and bio-molecules</i> | I |
| 09:00-09:30 | Arben Merkoci (ICREA & ICN2, Spain) <i>Diagnostics with graphene-based materials</i> | I |
| 09:30-09:45 | Hugo Barès (Institut des Sciences Moléculaires, France) <i>Direct and Defect-Free Liquid-Phase Exfoliation of Graphite Assisted by a Reversible Cycloaddition Reaction</i> | O |
| 09:45-10:00 | Eric Boon (Stevens Institute of Technology, United States) <i>Reduced Graphene Oxide Temperature Sensor for Wearable Mobile Healthcare</i> | O |

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| 10:00-10:30 | Coffee Break & Poster session | |
| 10:30-10:45 | Maria Dolores Calzada (University of Cordoba, Spain) <i>Synthesis of multilayer-graphene from direct decomposition of ethanol microwave plasma without using metal catalyst and substrate-free</i> | 0 |
| 10:45-11:00 | Sergey Gusarov (National Institute for Nanotechnology, Canada) <i>The effect of adsorption of gas molecules on electronic and transport properties of nanostructures graphene membrane</i> | 0 |
| 11:00-11:15 | Mehrdad Irannejad (University of Waterloo, Canada) <i>Graphene Oxide Sol-Gel Fabrication using Ultrashort Laser Ablation</i> | 0 |
| 11:15-11:30 | Makarand Paranjape (Georgetown University, United States) <i>Ambipolar Behavior of Solid-State MoS₂-on-SiO₂ Using Contact Engineering</i> | 0 |
| 11:30-11:45 | Michael Pope (University of Waterloo, Canada) <i>Probing Structure Function Relationships with Graphene Monolayer Electrodes: The Importance of Disorder for Enhanced Electrochemical Performance</i> | 0 |
| 11:45-12:00 | Leron Vandsburger (Université de Montréal, Canada) <i>Nitrogen Microwave Plasma Flowing Afterglow Polymerization and Deposition of Polypyrrole Films for Preparation of Biocompatible and Conductive Graphene Composite Materials</i> | 0 |
| 12:00-12:30 | Mohamed Siaj (UQAM, Canada) <i>Electrochemical biosensors based graphene for foodborne contaminants</i> | 1 |
| Parallel Workshop 3 - Electronic Devices | | |
| 08:30-09:00 | Alexandre Champagne (Concordia University, Canada) <i>Ten-nm scale ballistic graphene channels connected with ballistic contacts</i> | 1 |
| 09:00-09:30 | Gianluca Fiori (University of Pisa, Italy) <i>2D Electronics: what can we really expect?</i> | 1 |
| 09:30-09:45 | Vadym Apalkov (Georgia State University, United States) <i>Ultrafast field control of symmetry and reversibility in buckled graphene-like materials</i> | 0 |
| 09:45-10:00 | Angela Beltaos (University of Alberta, Canada) <i>Luminescence Properties of Graphene</i> | 0 |
| 10:00-10:30 | Coffee Break & Poster session | |
| 10:30-11:00 | Vladimir Falko (National Graphene Institute, the University of Manchester, UK) <i>Focusing and caustics in the current distribution in ballistic graphene-based devices</i> | 1 |
| 11:00-11:15 | Kirk Bevan (McGill University, Canada) <i>Graphene as the Ideal Material to See Atomic Features in the Voltage Drop?</i> | 0 |
| 11:15-11:30 | Huilin Chang (National Chiao Tung University, Taiwan) <i>Controllable Carbon Based Nanostructured Materials Applied in Nanoelectronics</i> | 0 |
| 11:30-11:45 | Xiaobin Chen (McGill University, Canada) <i>Valley caloritronics by graphene nanoribbons</i> | 0 |
| 11:45-12:00 | Che-Hung Liu (University of Michigan, United States) <i>Graphene Ambipolar Nanoelectronics for High Noise Rejection Amplification</i> | 0 |
| 12:00-12:15 | Adam Rycerz (Jagiellonian University, Poland) <i>Nonstandard quantum interference in magnetotransport through graphene rings and disks</i> | 0 |
| 12:15-12:30 | Frank Tseng (Naval Research Laboratory, United States) <i>Controlling exciton population in 2D transition metal dichalcogenides</i> | 0 |
| Parallel PhD Student Session | | |
| 08:30-08:45 | Velram Balaji Mohan (Centre for Advanced Composite Materials, The University of Auckland, New Zealand) <i>Electrical conductivity of polymer/polymer/graphene hybrid composites</i> | 0 |
| 08:45-09:00 | Germain Robert Bigras (University of Montreal, Canada) <i>Defect Controlled Addition of Nitrogen into Aromatic Configurations in CVD-Grown Graphene by Microwave Late Afterglow Plasma Exposure</i> | 0 |
| 09:00-09:15 | Minh Nguyen (Université de Montreal, Canada) <i>Controlled Growth of Graphene Bilayers and Their Chemical and Physical Properties</i> | 0 |
| 09:15-09:30 | Maria del Prado Lavin Lopez (University of Castilla La Mancha, Spain) <i>CVD-graphene synthesis using different transition metals as catalyst</i> | 0 |
| 09:30-09:45 | Carlos Marquez (University of Granada, Spain) <i>Electrical Properties of Laser Reduced Graphene Oxide</i> | 0 |
| 09:45-10:00 | Eric Whiteway (McGill University, Canada) <i>Continuous temporal imaging of graphene growth by isotope labelling</i> | 0 |
| 10:00-10:30 | Coffee Break & Poster session | |
| 10:30-10:45 | Salamat Burzhuev (University of Waterloo, Canada) <i>Decreasing contact resistance in graphene devices by optimizing edge contact under metal</i> | 0 |
| 10:45-11:00 | Mohamed AbdelGhany (McGill University, Canada) <i>Demonstration of Suspended Graphene Varactors</i> | 0 |
| 11:00-11:15 | Matthieu Fortin-Deschênes (Polytechnique Montréal, Canada) <i>Real time observation of exfoliated black phosphorus sublimation</i> | 0 |

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| 11:15-11:30 | Alexandre Favron (Université de Montréal, Canada) <i>Humidity Effects and Anisotropic Etching During Exfoliated Black Phosphorus Degradation</i> | O |
| 11:30-11:45 | Simone Latini (Technical University of Denmark, Denmark) <i>Quasi two-dimensional models of Dielectric Screening and Excitons: From Atomically thin Materials to van der Waals Heterostructures</i> | O |
| 11:45-12:00 | José Carlos Viana Gomes (NUS Centre for Advanced 2D Materials and Graphene Research Centre, Singapore) <i>Nonlinear optical response of Phosphorene</i> | O |
| 12:30-13:30 | Lunch | |
| 13:30-14:00 | Andrea C. Ferrari (University of Cambridge, UK) | I |
| 14:00-14:15 | Monica Craciun (University of Exeter, United Kingdom) <i>High quality monolayer graphene synthesized by resistive heating cold wall chemical vapour deposition</i> | O |
| 14:15-14:45 | Michael S. Arnold (University of Wisconsin-Madison, USA) <i>Chemical vapor deposition of graphene and aligned graphene nanoribbons with controlled edges</i> | I |
| 14:45-15:00 | Marc A. Gluba (Helmholtz-Zentrum Berlin für Materialien und Energie GmbH, Germany) <i>Transparent graphene electrodes for perovskite/silicon tandem solar cells</i> | O |
| 15:00-15:30 | Tsuneyuki Ozaki (INRS, Canada) <i>Intense Terahertz Field-induced Carrier Dynamics in Graphene</i> | I |
| 15:30-16:00 | Coffee Break & Poster session | |
| 16:00-16:40 | Tony Heinz (Stanford University, USA) <i>Novel properties of 2D transition metal dichalcogenide crystals</i> | K |
| 16:40-16:55 | Etienne Gaufrès (CNRS, France) <i>Confinement effects and spectroscopic properties in exfoliated BN and Black Phosphorus layers</i> | O |
| 16:55-17:10 | Thomas Szkopek (McGill University, Canada) <i>Two-Dimensional Transport in a Black Phosphorus Naked Quantum Well</i> | O |
| 17:10-17:25 | Adina Luican-Mayer (Argonne National Laboratory (USA) and uOttawa (Canada)) <i>Charge density wave phases in ultrathin 1T-TaS₂</i> | O |
| 17:25 | Concluding remarks | |