



Sunday AM, May 24th			
08:00 08:30	Welcome: Michel Têtu & Pierre Galarneau - Room 2000A		
08:30 09:15	<b>Photonics with New Interfaces to meet the Challenges of 21st Century</b> Keynote: Paras N. Prasad - Room 2000A		
09:15 10:00	Morning PLENARY (PLEN-24-1) <b>High-speed wavelength-swept lasers and applications in biomedical imaging</b> Brett E. Bouma, PhD - Room 2000A		
10:00 10:30	COFFEE BREAK		
SESSION:	BIO: Room 2000 A	OSD: Room 2101	PDS: Room 2102 B
CHAIR:	<b>Pavel Cheben</b>		
10:30 11:00	Invited Speaker <b>A single-photon and multi-photon spectroscopic study of atherosclerotic lesions</b> (BIO-24-1-1) Michael S.D. Smith <sup>1</sup> , Alex C.T. Ko <sup>1</sup> , Andrew Ridsdale <sup>2</sup> , Bernie Schattka <sup>1</sup> , Mark D. Hewko <sup>1</sup> , Masashi Shiomi <sup>3</sup> , Albert Stolow <sup>2</sup> , and Michael G. Sowa <sup>1</sup> <i>1)Institute for Biodiagnostics, National Research Council Canada, Winnipeg, Canada.</i> <i>2)Steacie Institute for Molecular Sciences, National Research Council Canada, Ottawa.</i> <i>3)Institute for Experimental Animals, Kobe University School of Medicine, Japan</i>	-	Invited Speaker <b>Design and modeling of gold and silver nanostructures for applications in biomolecule sensing</b> (PDS-24-1-1) George C. Schatz <i>Northwestern University, Evanston, IL, USA</i>



Sunday AM, May 24th			
<b>08:30 08:45</b>	Welcome		
<b>08:45 09:00</b>	Keynote		
<b>09:00 09:45</b>	Morning Plenary		
<b>10:00 10:30 COFFEE BREAK</b>			
<b>SESSION:</b>	<b>N-NANO: Room 2103</b>	<b>ULTRA: Room 2104 A</b>	<b>OPTO: Room 2104 B</b>
<b>CHAIR:</b>		<b>Michel Piché</b>	<b>Raman Kashyap</b>
<b>10:30 11:00</b>	<p>Invited Speaker <b>Silicon Nanoscale Light Emitters: Applications, Problems, and Future Potential</b> (NOM-NANO-24-1-1)</p> <p>A. Meldrum <i>Dept. of Physics, University of Alberta, Edmonton, Canada</i></p>	<p>Invited Speaker <b>Visualization of xenon double ionization as a function of the wavelength (from 500 nm to 2200 nm)</b> (ULTRA-24-1-1)</p> <p>G.Gingras, A. Tripathi and B.Witzel <i>Centre d'optique, photonique et laser, Université Laval, Pavillon d'optique-photonnique, Quebec, Canada</i></p>	<p>Invited Speaker <b>Nanowire Optoelectronics</b> (OPTO-24-1-1)</p> <p>R.R. LaPierre*, P.K. Mohseni, J. Czaban <i>Department of Engineering Physics, Centre for Emerging Device Technologies, McMaster University, Hamilton, Ontario</i></p>

<b>11:00 11:20</b>	<b>Coherent Raman spectroscopy as a cancer diagnostic tool (BIO-24-1-2)</b> Steve Bégin, Daniel Côté, Erik Bélanger <i>Centre de Recherche Université Laval Robert Giffard (CRULRG)</i>	-	(11:00 11:30) <b>Invited Speaker Towards faster, secure and more energy efficient optical networks (PDS-24-1-2)</b> Ivan Glesk and Ivan Andonovic <i>Department of Electronic and Electrical Engineering, University of Strathclyde Glasgow, Scotland</i>
<b>May 24th</b>	<b>BIO</b>	<b>OSD</b>	<b>PDS</b>
<b>11:20 11:40</b>	<b>Development of a flexible non linear fiber probe for dynamic-functional imaging of neurophysiology: From modeling to design (BIO-24-1-3)</b> Luc Langevin, Ozzy Mermut, Jean-Pierre Bouchard, Michel Fortin, Marcia Vernon, Michel Piché, Daniel Côté, Jean-François Cormier	-	(11:30 11:50) <b>Modeling Scattering and Diffraction Elements in a SPICE-based Optoelectronic Framework (PDS-24-1-3)</b> Tom Smy <sup>1</sup> , Pavan Gunupudi <sup>1</sup> , Jackson Klein <sup>2</sup> , Jan Jakubczyk <sup>2</sup> <i>1)Carleton University, 2)Optiwave Systems Inc.</i>
<b>11:40 12:00</b>	<b>The application of floating reference in the non-invasive blood glucose sensing by near-infrared spectroscopy (BIO-24-1-4)</b> Kexin Xu, Xiaotang Hu, Rong Liu, Wenliang Chen <i>State key laboratory of precision measuring technology and instruments, Tianjin University, Tianjin 300072, P. R. China</i>	-	-



<b>11:00 11:20</b>	<b>Room Temperature Emission Characteristics of InGaAs/GaAs Quantum Dot Micro-tube Ring Resonators (NOM-NANO-24-1-2)</b>  F. Li, S. Vicknesh, and Z. Mi <i>Department of Electrical and Computer Engineering, McGill University, Montreal, Canada</i>	<b>Parametric Study of Laser Wakefield Acceleration (ULTRA-24-1-2)</b>  N. Vafaei-Najadabadi, A. Ali, J. A. Chakera, R. Fedosejevs, Y. Y. Tsui <i>University of Alberta, Edmonton, Canada</i>	<b>Development of fusion SiO<sub>2</sub> optical coupler switch by using voltage breakdown (OPTO-24-1-2)</b>  Saktioto <sup>1</sup> , Nor Faridah Hanim Mat Junit <sup>2</sup> , Jalil Ali <sup>2</sup> , Ho Sze Phing <sup>2</sup> , M. Fadhal <sup>2</sup> <i>1)Physics Dept., Math and Natural Sciences Faculty, University of Riau, Pekanbaru, Indonesia. 2)Institute of Advanced Photonics Sciences, Faculty of Science, Universiti Teknologi Malaysia (UTM), Johor, Malaysia</i>
<b>May 24th</b>	<b>NOM-NANO</b>	<b>ULTRA</b>	<b>OPTO</b>
<b>11:20 11:40</b>	<b>A monolithic L-band InAs/InP quantum dot mode-locked laser (NOM-NANO-24-1-3)</b>  Z.G. Lu, J.R. Liu, P. Poole, S. Raymond, P. Barrios, D. Poirier, G. Pakulski and P. Grant <i>Institute for Microstructural Sciences, National Research Council, Ottawa, Canada</i>	<b>Third harmonic generation at an air/glass interface during filamentation (ULTRA-24-1-3)</b>  Feng Liang, Quan Sun, Réal Vallée, and See Leang Chin <i>Centre d'Optique, Photonique et Laser (COPL) et le Département de Physique, de Génie Physique et d'Optique, Université Laval, Québec, Canada</i>	<b>Correlation Study Between Contamination and Signal Degradation in Singlemode APC Connectors (OPTO-24-1-3)</b>  S. Lytle, M. Brown, T. Berdinskikh, D. H. Wilson, D. Fisher, M. Hughes, T. Mitcheltree, B. J. Roche, S.Y. Huang
<b>11:40 12:00</b>	<b>Er doped Si nanoclusters waveguides longitudinally pumped by broad area lasers for optical amplification (NOM-NANO-24-1-4)</b>  V. Donzella <sup>1</sup> , V. Toccafondo <sup>1</sup> , S. Faralli <sup>1</sup> , F. Di Pasquale <sup>1</sup> , A. Pitanti <sup>2</sup> , N. Daldosso <sup>2</sup> , L. Pavese <sup>2</sup> , F. Gourbilleau <sup>3</sup> , R. Rizk <sup>3</sup> <i>1)Scuola Superiore Sant'Anna, piazza Martiri della Libertà, Pisa, Italy. 2)Nanoscience Laboratory, Department Of Physics, Università di Trento, Trento, Italy. 3) CIMAP, UMR CNRS-CEA, ENSICAEN, CAEN Cedex 4, France</i>	<b>Surface ablation in fused silica and corneal tissue with near single cycle pulses (ULTRA-24-1-4)</b>  P.Lassonde <sup>1</sup> , F.Légaré <sup>1</sup> , F.Vidal <sup>1</sup> , J.-C.Kieffer <sup>1</sup> , O.Utéza <sup>2</sup> , N.Sanner <sup>2</sup> , M.Sentis <sup>2</sup> , L.Hoffart <sup>3</sup> , I. Brunette <sup>4</sup> <i>1)INRS ,Énergie Matériaux et Télécommunications, Varennes, Canada. 2)Laboratoire LP3, CNRS-Université de la Méditerranée, Campus de Luminy, Marseille, France. 3)Ophthalmology Department, Aix-Marseille 2 University, Marseille, France. 4)Department of Ophthalmology, University of Montreal and Maisonneuve-Rosemont Hospital Research Center, Montreal, Canada</i>	<b>Automatic Multirate All-Optical Routed Network Based on Optical Code Division Multiplexing Solution (OPTO-24-1-4)</b>  Houssem Brahmi <sup>1,2</sup> , Mourad Menif <sup>1</sup> and Didier Erasme <sup>2</sup> <i>1)CIRTACOM, Ecole Supérieure des Communications de Tunis, El Ghazala, Tunisie; 2)Departement COMELEC, TELECOM ParisTech, Paris, France</i>

Sunday PM May 24th	BIO Room 2104 A	OSD Room 2104 A	NOM-NANO Room 2104 A
<b>CHAIR:</b>			
<b>13:30 14:00</b>	<p>Invited Speaker  <b>Evaluation of diseases in vivo with coherent anti-Stokes Raman scattering microscopy</b> (BIO-24-2-1)</p> <p>E. Bélanger<sup>1,2</sup>, S. Laffray<sup>1</sup>, S. Bégin<sup>1,2</sup>, R. Vallée<sup>1,2</sup> and D. Côté<sup>1,2</sup></p> <p>1)Centre de Recherche Université Laval Robert-Giffard  2)Centre d'Optique, Photonoïque et Lasers. Université Laval, Québec, QC, Canada.</p>	-	<p>Invited Speaker  <b>Spectroscopy of Nanomaterials: Pushing the Limit of Raman Microscopy</b> (NOM-NANO-24-2-1)</p> <p>D.Talaga<sup>1</sup>, François Lagugné-Labarthet<sup>2</sup></p> <p>1)Institut des Sciences Moléculaires, Université Bordeaux, Talence cedex, France.  2)The University of Western Ontario, Department of Chemistry, London, Canada</p>
<b>14:00 14:20</b>	<p><b>Polarization properties of the fundus of the eye: effects of age and implications to the diagnosis of eye disease</b> (BIO-24-2-2)</p> <p>Melanie C. W. Campbell<sup>1,2,3</sup>, Juan M. Bueno<sup>4</sup>, Christopher J. Cookson<sup>1</sup>, Jennifer J. Hunter<sup>5</sup>, and Marsha L.Kisilak<sup>1,2</sup></p> <p>1)Dept. of Physics and Astronomy, University of Waterloo, Waterloo, Canada, N2L 3G1.  2)School of Optometry, University of Waterloo, Waterloo, Canada, N2L 3G1. 3)Guelph-Waterloo Physics Institute, Waterloo, Canada, N2L 3G1.  4)Laboratorio de Óptica, Centro de Investigación en Óptica y Nanofísica (CiOyN), Universidad de Murcia, Campus de Espinardo, 30071 Murcia, Spain. 5)Center for Visual Science, University of Rochester, Rochester, NY</p>	-	<p><b>Cooperativity in the organization of molecules under light</b> (NOM-NANO-24-2-2)</p> <p>Régis Barille<sup>1</sup>, Jean-Michel Nunzi<sup>2</sup></p> <p>1)Laboratoire Propriétés Optiques des Matériaux et Applications, UMR CNRS, Université d'Angers, Angers, France. 2)Physics Department and Chemistry Department, Queen's University, Kingston, Canada</p>



Sunday PM May 24th	PDS Room 2104 A	ULTRA Room 2104 A	OPTO Room 2104 A
CHAIR:	Ivan Glesk	Michel Piché	Ray LaPierre
13:30 14:00	<p>Invited Speaker  <b>High Performance Multi-modal CARS Microscopy Using a Single Femtosecond Source</b>  (PDS-4-2-1)  Albert Stolow  <i>NRC, Canada</i></p>	<p><b>Recent progress on closing the THz gap with pulsed THz photonics</b>  (ULTRA-24-2-1)  X.-C. Zhang  <i>Center for Terahertz Research  Rensselaer Polytechnic Institute, Troy, NY, USA</i></p>	<p>Invited Speaker  <b>Nonlinear superlattice waveguides</b> (OPTO-24-2-1)  J. Stewart Aitchison</p>
14:00 14:20	<p>(14:00 14:30) Invited Speaker  <b>Supercontinuum generation from intense partially coherent laser beams in optical fibers</b> (PDS-24-2-2)  Pedro Corredora<sup>1</sup>, Sonia Martin-López<sup>1</sup> &amp; Miguel González-Herraez<sup>2</sup>  1)Instituto de Física Aplicada, CSIC, Madrid, Spain  2)Departamento de Electrónica, UAH, Alcalá de Henares, Spain</p>	<p>(14:00 14:30) Towards CEP stabilized infrared few-optical-cycle laser pulses  (ULTRA-24-2-2)  François Légaré<sup>1</sup>, Mathieu Giguère<sup>1</sup>, Bruno Schmidt<sup>1</sup>, Andrew D. Shiner<sup>2</sup>, David M. Villeneuve<sup>2</sup>, and Jean-Claude Kieffer<sup>1</sup>  1)Institut National de la Recherche Scientifique, Centre Énergie Matériaux et Télécommunications, Varennes, Canada. 2)National Research Council of Canada, Ottawa, Canada</p>	<p><b>Suppressed Carrier Techniques for Multi-octave High Dynamic Range Microwave Photonic Links</b>  (OPTO-24-2-2)  Charles Middleton and Richard DeSalvo  <i>Harris Corporation, Government Communications Systems Division, Melbourne, Florida, USA</i></p>



May 24th	BIO	OSD	NOM-NANO
14:20 14:40	<b>Inhibition of Oncogenic functionality of STAT3 Protein by Membrane Anchoring</b> (BIO-24-2-3) Baoxu Liu, Steven Fletcher, Patrick Gunning, Claudiu Gradinaru <i>University of Toronto Mississauga</i>	-	<b>Compositional and Optical Comparison of ICP-CVD SiCx, SiCxNy, and SiNx Thin Films</b> (NOM-NANO-24-2-3) K. Dunn, E. Chelomentsev, P. R. J. Wilson, V. Donzella <sup>1</sup> , T. Roschuk, J. Wojcek, and P. Mascher <i>Department of Engineering Physics and Centre for Emerging Device Technologies, McMaster University, Hamilton, Ontario, Canada</i> 1)Sant'Anna School of Advanced Studies, National Excellence Center in Photonic Networks (CEIIC), Pisa, Italy
14:40 15:00	<b>Excimer ablation of Calcified lesion modeling for Excimer laser ablation</b> (BIO-24-2-4) Holly Scott; Andrew Archuleta; Robert Splinter, PhD <i>Spectranetics Corporation, Colorado Springs, CO</i>	-	<b>High Quality InN Nanowires Grown Directly on Si(111) Substrates</b> (NOM-NANO-24-2-4) Y.-L. Chang, F. Li, A. Fatehi, and Z. Mi <i>Department of Electrical and Computer Engineering, McGill University, Montreal, Canada</i>
	<b>(15:00 15:20) Rapidly phase-shaped broadband pulses for in vivo selective two-photon microscopy</b> (BIO-24-2-5) Manuel Joffre <sup>1</sup> , Nicolas Olivier <sup>1</sup> , Emmanuel Beaurepaire <sup>1</sup> , Israel Veilleux <sup>1</sup> , Guillaume Labroille <sup>1</sup> , Rajesh Pillai <sup>1</sup> , Caroline Boudoux <sup>2</sup> <i>1)Laboratoire d'Optique et Biosciences, École Polytechnique, Paris. 2)École Polytechnique Montreal, Canada</i>	-	-
15:00 15:30	<b>COFFEE BREAK</b>		



May 24th	PDS	ULTRA	OPTO
14:20 14:40	(14:30 14:50) All Optical Switching in Silicon on Insulator Waveguides Using Plasma Dispersion Effect (PDS-24-2-3) Mohammadreza Khorasaninejad and Simarjeet Singh Saini <i>Department of Electrical and Computer Engineering, University of Waterloo, 200 University Avenue West, Waterloo, Canada</i>	(14:30 14:50) Time-frequency characteristics of single-cycle pulses (ULTRA-24-2-3) Qiang Lin, Jian Zheng <i>Institute of Optics, Department of Physics, Zhejiang University, Hangzhou, China</i>	Closed-loop Control of Magnetic Fluid Deformable Mirrors (OPTO-24-2-3) Azhar Iqbal, Zhizheng Wu, Foued Ben Amara <i>University of Toronto, Department of Mechanical and Industrial Engineering</i>
14:40 15:00	-	-	Design of Experiment Optimization of Erbium-Doped Fiber To Single Mode Fiber Splices (OPTO-24-2-4) Rutsuda Thongdaeng <i>Celestica</i>
15:00 15:30	COFFEE BREAK		



May 24th	BIO	OSD	NOM-NANO
CHAIR:		Yanina Shevchenko	
<b>15:30 16:00</b>	<p><b>Invited Speaker</b>  <b>Surface Enhanced Raman Scattering Detection of Amino acids and Peptides in Microfluidic Device</b>  (BIO-24-3-1) Archana Kandakkathara, Ilya Utkin, Robert Fedosejevs  <i>Electrical &amp; Computer Engineering, Universit y of Alberta</i></p>	<p><b>Invited Speaker</b>  <b>Merging photonic crystal waveguides and plasmonics - enabling technology for compact, while highly sensitive sensors from visible to terahertz</b> (OSD-24-1-1)  Maksim Skorobogatiy  <i>École Polytechnique de Montréal, Canada</i></p>	<p><b>Invited Speaker</b>  <b>Designing New Photoactive Polymers and Liquid Crystals</b> (NOM-NANO-24-3-1)  Yue Zhao  <i>Polymers and Liquid Crystals Laboratory, Chemistry Department, University of Sherbrooke</i></p>
<b>16:00 16:20</b>	<p><b>Microchip-based flow cytometry for Effective Detection and Count</b> (BIO-24-3-2)  Canjun Mu<sup>1</sup>, Zhiyi Zhang<sup>2</sup>, Min Lin<sup>3</sup>, Xudong Cao<sup>1</sup>  1)Department of Chemical Engineering, University of Ottawa, Ottawa, Ontario, Canada.  2)Institute for Microstructural Science, National Research Council Canada, Ottawa, Ontario, Canada. 3)Canadian Food Inspection Agency, Ottawa, Ontario, Canada</p>	<p><b>Brillouin spectrum narrowing in high extinction ratio nanosecond pulse from phase locked DFB lasers</b> (OSD-24-1-2)  Yun Li, Xiaoyi Bao, Jeffrey Snoddy, Liang Chen  <i>Fiber Optics Group, Center for Photonic Research, University of Ottawa, Ontario, Canada</i></p>	<p><b>Electro-optical properties of silicon nanocrystals</b> (NOM-NANO-24-3-2)  A. Lacombe, F. Beaudoin, F. Martin, G. G. Ross  <i>INRS-EMT (Institut National de la Recherche Scientifique - Énergie, Matériaux et Télécom)</i></p>
<b>16:20 16:40</b>	<p><b>Label-free Light Scattering Characterization of Single Biological Cells in a Microfluidic Cytometer</b> (BIO-24-3-3)  X. T. Su<sup>1</sup>, S. E. Kirkwood<sup>1</sup>, H. Gul<sup>3</sup>, K. Singh<sup>1</sup>, M. Z. Islam<sup>1</sup>, A. Janowska-Wieczorek<sup>3</sup>, W. Rozmus<sup>2</sup>, and Y. Y. Tsui<sup>1</sup>  1)Department of Electrical and Computer Engineering, University of Alberta. 2)Department of Physics, University of Alberta. 3)Department of Medicine, University of Alberta &amp; Canadian Blood Services</p>	<p><b>Achromatic sensor based on Berry's phase amplification by a ring resonator</b> (OSD-24-1-3)  Lutse Imobekhai, Timothy Audet, and Ilya Golub,  <i>School of Advanced Technology, Algonquin College, Ottawa, Ontario</i></p>	<p><b>Switching in Nonlinear Chalcogenide Directional Couplers</b> (NOM-NANO-24-3-3)  Chams Baker and Martin Rochett  <i>Mcgill University, Canada</i></p>



May 24th	PDS	ULTRA	OPTO
CHAIR:	Hugo Hernandez-Figueroa	Michel Piché	
15:30 16:00	Invited Speaker <b>Design and simulation of ultra-long Raman laser links for optical signal transmission</b> (PDS-24-3-1) Juan Diego Ania-Castañón <i>Instituto de Óptica, CSIC, Madrid, Spain</i>	All-fiber, high power, rugged ultrashort-pulse laser source at 1550 nm (ULTRA-24-3-1) Louis Desbiens, Vincent Roy and Yves Taillon <i>INO, Québec, Canada</i>	-
16:00 16:20	(16:00 16:30) Invited Speaker <b>Design of silicon and polymer photonic waveguide structures for sensing applications</b> (PDS-24-3-2) Rainer Hainberger <sup>1</sup> , Roman Bruck <sup>1</sup> , Paul Muellner <sup>1</sup> , Kriemhilt Roppert <sup>1</sup> , Winfried Boxleitner <sup>2</sup> , Christoph Pacher <sup>2</sup> , Norman Finger <sup>3</sup> <sup>1</sup> Austrian Research Centers GmbH – ARC, Nano-System-Technologies. <sup>2</sup> Austrian Research Centers GmbH – ARC, Smart Systems Vienna, Austria <sup>3</sup> formerly <sup>2</sup> now affiliated with Dr. Schenk GmbH, Planegg, Germany	Optimizing waveguide array mode-locking for high-power ber lasers (ULTRA-24-3-2) Brandon G. Bale <sup>1</sup> , J. Nathan Kutz <sup>2</sup> , and Björn Sandstede <sup>3</sup> <sup>1</sup> <i>Photonics Research Group, Aston University, Birmingham UK.</i> <sup>2</sup> <i>Department of Applied Mathematics, University of Washington, Seattle, WA.</i> <sup>3</sup> <i>Division of Applied Mathematics, Brown University, Providence, RI</i>	-
16:20 16:40	(16:30 16:50) <b>Mathematical approximations for the amplitude of the fundamental mode field (LP01) of a dispersion shifted fiber at six wavelengths</b> (PDS-24-3-3) Louis Lamarche <i>Hydro-Québec – IREQ, Canada</i>	Fiber Bragg Grating Inscription with DUV Femtosecond Exposure and Two Beam Interference (ULTRA-24-3-3) Martin Becker <sup>1</sup> , Sven Brückner <sup>1</sup> , Eric Lindner <sup>1</sup> , Manfred Rothhardt <sup>1</sup> , Hartmut Bartelt <sup>1</sup> , Luis A. Fernandes <sup>2</sup> <sup>1</sup> <i>Institute of Photonic Technology; Jena; Germany.</i> <sup>2</sup> <i>INESC Porto; Faculdade de Ciências; Porto, Portugal</i>	-



May 24th	BIO	OSD	NOM-NANO
16:40 17:00	<b>Development of a fiber-coupled microfluidic cytometer for the sorting of stem cells from blood samples</b> (BIO-24-3-4) M. Z. Islam <sup>1</sup> , X. T. Su <sup>1</sup> , S. E. Kirkwood <sup>1</sup> , K. Singh <sup>1</sup> , J. N. McMullin <sup>1</sup> , W. Rozmus <sup>2</sup> , A. Janowska-Wieczorek <sup>3</sup> , and Y. Y. Tsui <sup>1</sup> <i>1)Department of Electrical and Computer Engineering, University of Alberta.</i> <i>2)Department of Physics, University of Alberta.</i> <i>3)Department of Medicine, University of Alberta &amp; Canadian Blood Services</i>	-	-
17:00 17:20	<b>Integrated biophotonic μTAS for flow cytometry and particle detection</b> (BIO-24-3-5) Arvind Chandrasekaran, Muthukumaran Packirisamy <i>Optical-Bio Microsystems Laboratory, Department Of Mechanical and Industrial Engineering, Concordia University, Canada</i>	-	-



May 24th	PDS	ULTRA	OPTO
16:40 17:00	-	<p><b>Fiber Bragg gratings with enhanced temperature stability by residual stress relaxation (ULTRA-24-3-4)</b></p> <p>Yuhua Li<sup>1,3</sup>, D. N. Wang<sup>1</sup>, Min-wei Yang<sup>1</sup>, Jian Lu<sup>2</sup></p> <p><i>1)Department of Electrical Engineering, the Hong Kong Polytechnic University, Hong Kong. 2)Department of Mechanical Engineering, the Hong Kong Polytechnic University, Hong Kong. 3)Wuhan National Laboratory for Optoelectronics, Huazhong University of Science and Technology, Wuhan, China</i></p>	-
17:00 17:20	-	-	-

Monday AM, May 25th			
08:15 08:55	Morning PLENARY 1 (PLEN-25-1) <b>Ultrafast laser oscillators in the thin disk geometry</b> Ursula Keller, <i>ETH Zurich, Physics Department, Switzerland - Room 2000A</i>		
08:55 09:35	Morning PLENARY 2 (PLEN-25-2) <b>Quantum Networks : towards quantum repeaters</b> Nicolas Gisin, <i>University of Geneva, Switzerland - Room 2000A</i>		
09:35 10:05	Morning PLENARY 3 (PLEN-25-3) <b>Future Perspectives in Fiber-Optic Communications</b> René-Jean Essiambre, <i>Bell Labs, Alcatel-Lucent, Holmdel, NJ, USA - Room 2000A</i>		
10:05 10:30	<b>COFFEE BREAK</b>		
SESSION:	BIO: Room 2101	OSD: Room 2102 B	PDS: Room 2103
CHAIR:		Peter Krug	Pavel Cheben
10:30 11:00	Invited Speaker <b>Swept-source full-field optical coherence microscopy</b> (BIO-25-4-1) Shoude Chang, Sherif Sherif Youxin Mao, Costel Flueraru <i>Imaging Devices Group, Institute for Microstructural Sciences, National Research Council Canada, Ottawa</i>	Invited Speaker <b>Strategies for sensitivity enhancement and miniaturization of surface plasmon resonance biosensors</b> (OSD-25-2-1) M. Meunier, S. Patkovsky, S. Besner, A-P. Blanchard-Dionne, M. Maisonneuve, I-H. Song and A.V. Kabashin <i>Laser Processing Laboratory, Department of Engineering Physics, École Polytechnique de Montréal, Montréal, Canada</i>	Invited Speaker <b>Silicon Plasmonic Waveguides for Infrared and Terahertz Applications</b> (PDS-25-4-1) Richard Soref <sup>1</sup> , Sang-Yeon Cho <sup>2</sup> , Walter Buchwald <sup>1</sup> and Robert Peale <sup>3</sup> 1)Air Force Research Laboratory, Sensors Directorate, Hanscom AFB, MA 01731 2)New Mexico State University, ECE Dept., Las Cruces, NM 88003 3)University of Central Florida, Physics Dept., Orlando, FL
11:00 11:20	<b>Characterization of microfluidic systems with Doppler Optical Coherence Tomography</b> (BIO-25-4-2) L. Carrion, E. Hamel, C. Boudoux, O. Guenat and R. Maciejko <i>Laboratoire d'Optoélectronique, Département de Génie Physique, École Polytechnique de Montréal, Canada</i>	<b>Chemical Sensing by Cavity Ring-down Spectroscopy of Microsphere Resonators</b> (OSD-25-2-2) J. Barnes <sup>1</sup> , B. Carver <sup>1</sup> , J. Fraser <sup>2</sup> , G. Gagliardi <sup>3</sup> , H.-P. Loock <sup>1</sup> , Z. Tian <sup>2</sup> , M. Wilson <sup>2</sup> , S. Yam <sup>4</sup> 1)Department of Chemistry, Queen's University, Kingston, Canada. 2)Department of Physics, Queen's University, Kingston, Canada. 3)Consiglio Nazionale delle Ricerche - Istituto Nazionale di Ottica Applicata (INO), Pozzuoli (Naples), Italy. 4)Department of Electrical and Computer Engineering, Queen's University, Canada	(11:00 11:30) Invited Speaker <b>Simulation, design and implementation of silicon photonics WDM devices for on-chip optical interconnects</b> (PDS-25-4-2) Folkert Horst <sup>1</sup> , William M.J. Green <sup>2</sup> , Bert Jan Offrein <sup>1</sup> and Yurii A. Vlasov <sup>2</sup> 1)IBM Research GmbH, Zurich Research Laboratory, Rüschlikon, Switzerland 2)IBM T.J. Watson Research Center, Yorktown Heights, NY, USA



Monday AM, May 25th				
SESSION:	OPTO: Room	ULTRA: Room 2105	N-GEN: Room 2104 A	N-NANO: Room 2104B
CHAIR:	Henry Schriemer	Michel Piché		
08:15 08:55	Morning Plenary 1			
08:55 09:35	Morning Plenary 2			
09:35 10:05	Morning Plenary 3			
10:05 10:30	COFFEE BREAK			
10:30 11:00	<p>Invited Speaker  <b>Optical Transceiver PICs and their Building Blocks</b> (OPTO-25-3-1)</p> <p>Valery I. Tolstikhin  <i>OneChip Photonics Inc., Ottawa, Ontario, Canada</i></p>	<p>Invited Speaker  <b>Ultrashort pulse lasers based on external-cavity semiconductor oscillators and ytterbium-doped fibre amplifiers</b> (ULTRA-25-4-1)</p> <p>Harold K. Haugen  <i>Departments of Engineering Physics and Physics and Astronomy, McMaster University, Hamilton, Ontario</i></p>	-	<p>Invited Speaker  <b>Silicon-based High Efficiency Multijunction Solar cells</b> (NOM-NANO-25-4-1)</p> <p>Rafael Kleiman  <i>McMaster University, Canada</i></p>
11:00 11:20	<p><b>Investigating Pluggable Transceivers' Laser Linewidth, Chirp, and Stimulated Brillouin Scattering Effects on Data Transmission in Different Kinds of Optical Fibers</b> (OPTO-25-3-2)</p> <p>Ahmad Atieh<sup>1</sup>, Serge Terekov<sup>2</sup>, Rathy Shankar<sup>1</sup>, Wahab Almuhtadi<sup>2</sup>  <sup>1</sup><i>BTI Systems Inc., Ottawa, Canada</i>  <sup>2</sup><i>Algonquin College, School of Advanced Technology, Ottawa, Canada</i></p>	<p><b>Dual-wavelength passively mode-locked semiconductor quantum-dot Lasers</b> (ULTRA-25-4-2)</p> <p>Jiaren Liu, Zhenguo Lu, P.J. Poole, S. Raymond, P.J. Barrios, D. Poitras, and G. Pakulski  <i>Institute for Microstructural Sciences, National Research Council, Ottawa, Ontario</i></p>	<p>(11:10 11:35) <b>Advanced fibers for next generation optical networks</b> (NEXT-GEN-25-1-1)</p> <p>Sergey Ten  <i>Corning Optical Fiber, USA</i></p>	<p>(11:00 11:30) <b>Advanced Silicon-based Photovoltaics Using Nanostructures</b> (NOM-NANO-25-4-2)</p> <p>Siva Sivoththaman  <i>Electrical and Computer Engineering, Centre for Advanced Photovoltaic Devices and Systems, University of Waterloo</i></p>



May 25th	BIO	OSD	PDS
11:20 11:40	<p><b>Optical modeling of a line-scan optical coherence tomography system for high speed three-dimensional endoscopic imaging</b> (BIO-25-4-3)</p> <p>Mohammad Kamal, Narayanswamy Sivakumar and Muthukumaran Packirisamy  <i>Department of Mechanical Engineering, Concordia University, Montreal, Canada</i></p>	<p><b>Waveguide Evanescent Field Fluorescence Microscopy: waveguide mode scattering by non-uniform gratings and defects in the wave guiding film</b> (OSD-25-2-3)</p> <p>Hassanzadeh, Abdollah, Mittler, Silvia, Wong, Kenneth Kar Ho  <i>University of Western Ontario, Canada</i></p>	<p>(11:30 11:50) <b>Sub-wavelength grating crossing for photonic wire waveguides</b> (PDS-25-4-3)</p> <p>Przemek J. Bock<sup>1,2</sup>, Pavel Cheben<sup>1</sup>, Jens H. Schmid<sup>1</sup>, Dan-Xia Xu<sup>1</sup>, Siegfried Janz<sup>1</sup>, Trevor J. Hall<sup>2</sup></p> <p><sup>1</sup><i>Institute for Microstructural Sciences, National Research Council of Canada, Ottawa, Canada.</i> <sup>2</sup><i>Centre for Research in Photonics, University of Ottawa, Ottawa, Canada</i></p>
11:40 12:00	<p><b>Laser-assisted protein adsorption by photobleaching</b> (BIO-25-4-4)</p> <p>Jonathan M. Bélisle<sup>1,2</sup>, James P. Correia<sup>3</sup>, Timothy E. Kennedy<sup>3</sup> and Santiago Costantino<sup>1,2,4</sup></p> <p><i>1) Maisonneuve-Rosemont Hospital, University of Montreal, Canada. 2) Institute of Biomedical Engineering, University of Montreal, Canada. 3) Montreal Neurological Institute, Department of Neurology and Neurosurgery, McGill University, Canada. 4) Department of Ophthalmology, University of Montreal, Canada</i></p>	<p><b>Biosensing in solution and on solid substrates by using anisotropic gold nanoparticles</b> (OSD-25-2-4)</p> <p>S. Stoenescu, S. Badilescu, M. Packirisamy, Vo-Van Truong  <i>Mechanical Engineering Department, Concordia University, 1515 St. Catherine W., Montréal (Québec), Canada</i></p>	<p>(11:50 12:10) <b>Dual-wavelength distributed feedback laser for the generation of terahertz radiation</b> (PDS-25-4-4)</p> <p>Antti Laakso, Mihail Dumitrescu and Markus Pessa  <i>Optoelectronics Research Centre, Tampere University of Technology, Tampere, Finland</i></p>
12:00 13:30	<b>LUNCH</b>		



May 25th	OPTO	ULTRA	NEXT-GEN	NOM-NANO
<b>11:20 11:40</b>	<b>High Speed Semiconductor Optical Amplifiers and Their Performance in Pseudo-random Bit-Stream Generation (OPTO-25-3-3)</b> N. K. Dutta, S. Ma, Z. Chen <i>Department of Physics, University of Connecticut, Storrs, CT</i>	-	(11:35 12:00) <b>Key enabling components for future high-speed optical networks</b> (NEXT-GEN-25-1-2) Martin Guy <i>Teraxion, Canada</i>	(11:30 11:50) <b>Radiation trapping in chalcogenide glasses heavily doped with Er<sup>3+</sup></b> (NOM-NANO-25-4-3) Safa Kasap and Kirill (Cyril) Koughia <i>Department of Electrical and Computer Engineering, University of Saskatchewan, Canada</i>
<b>11:40 12:00</b>	-	-	(12:00 13:00) <b>LUNCH Next-GEN</b>	-
<b>12:00 13:30</b>	<b>LUNCH</b>			

<b>Monday PM May 25th</b>	<b>BIO Room 2104 A</b>	<b>OSD Room 2104 A</b>	<b>PDS Room 2104 A</b>
<b>CHAIR:</b>		<b>Peter Krug</b>	<b>Richard Soref</b>
<b>13:00 13:30</b>	-	-	-
<b>13:30 14:00</b>	<p>Invited Speaker  <b>Logarithmic axicons generating non-diffracting beams with constant on-axis intensity</b> (BIO-25-5-1)</p> <p>Orlando Fornaguera<sup>1</sup>, Pavel Breygin<sup>1</sup>, Dariusz Nowacki<sup>1</sup>, Ilya Golub<sup>1</sup>, Wahab Almuhtadi<sup>1</sup> and Brahim Chebbi<sup>2</sup></p> <p><i>1)School of Advanced Technology, Algonquin College, Ottawa, Canada. 2)School of Engineering, Laurentian University, Sudbury, Canada</i></p>	<p><b>Photochromic sensors: modern trends</b> (OSD-25-3-1)</p> <p>V.Barachevsky, O. Kobeleva and T.Valova</p> <p><i>Photochemistry Center of the Russian Academy of Sciences, Moscow, Russia</i></p>	<p>Invited Speaker  <b>Functional control from broad waveguides, photonic crystal and “Littrow mode” approaches</b> (PDS-25-5-1)</p> <p>H. Benisty (invited)</p> <p>O. Khayam, C. Cambournac</p> <p><i>Laboratoire Charles Fabry, Institut d’Optique Graduate School, CNRS, Campus Polytechnique, France</i></p>
<b>14:00 14:20</b>	<p><b>Imaging with different axicons</b> (BIO-25-5-2)</p> <p>Dariusz Nowacki<sup>1</sup>, Ilya Golub<sup>1</sup> and Brahim Chebbi<sup>2</sup></p> <p><i>1)School of Advanced Technology, Algonquin College, Ottawa, Ontario, Canada. 2)School of Engineering, Laurentian University, Sudbury, Canada</i></p>	<p><b>Digital TAcy – Proof of concept</b> (OSD-25-3-2)</p> <p>François Martin<sup>1</sup>, Annie Bubel<sup>1</sup> and Jean-Francois Sylvain<sup>2</sup></p> <p><i>1)INO, 2)Atokas</i></p>	<p>(14:00 14:30) Invited Speaker  <b>The optical forces of vortex arrays in two-dimensional photonic crystals and slabs</b> (PDS-25-5-2)</p> <p>Jeffrey Wheeldon and Henry Schriemer</p> <p><i>Centre for Research in Photonics, University of Ottawa, Ontario</i></p>



Monday PM May 25th	OPTO Room	FLD Room 2104 A	NEXT-GEN Room 2104 A	CIPI Room 2104 A
CHAIR:	Henry Schriemer	Réal Vallée		
13:00 13:30	-	-	Invited Speaker <b>Ultra-High Bit Rate Agile Photonics Networks</b> (NEXT-GEN-25-2-1) David Plant	(13:40 17:00) <b>Applied Photonics Session</b>
13:30 14:00	<b>Disorder-Induced Coherent Scattering and Slow-Light in Photonic Crystal Waveguides</b> (OPTO-25-4-1) M. Patterson <sup>1</sup> , S. Combrié <sup>2</sup> , N.-V. Quynh Tran <sup>2</sup> , A. De Rossi <sup>2</sup> , R. Gabet <sup>3</sup> , Y. Jaouin <sup>3</sup> , and S. Hughes <sup>1</sup> . <i>1)Department of Physics, Queen's University, Kingston, ON, Canada. 2)Thales Research and Technology, Palaiseau Cedex, France. 3)Telecom ParisTech, Paris, France</i>	Invited Speaker <b>140 μJ, narrow linewidth, robustly single-transverse mode nanosecond infrared fiber laser platform with fine pulse tailoring capability</b> (FLD-25-1-1) Pascal Deladurantaye, Mathieu Drolet, Louis Desbiens, Yves Taillon, Bruno Labranche, Vincent Roy and Pierre Laperle <i>INO, Quebec City, Canada</i>	(13:30 13:55) <b>Next-Generation DWDM Testing</b> (NEXT-GEN-25-2-2) Gwenn Amice <i>EXFO, Québec, Canada</i>	(13:40 14:00) <b>Microstructuring of photosensitive glass with an ArF excimer laser projection patterning technique</b> Jan Dubowsky <i>U. Sherbrooke and Thermoptic</i>
14:00 14:20	<b>Direct acousto-optical analysis of ultra-high frequency radio-signals based on the collinear wave heterodyning in a medium with dispersive losses</b> (OPTO-25-4-2) Alexandre S. Shcherbakov, Abraham Luna Castellanos, and Daniel Sánchez Lucero <i>National Institute for Astrophysics, Optics, and Electronics. Puebla, Mexico</i>	<b>Compact Laser System with a ~1-mJ, 1-ns Output at a Multi-kHz Repetition Rate</b> (FLD-25-1-2) A.V. Kir'yanov <sup>1,2</sup> , S.M. Klimentov <sup>1,3</sup> , I.V. Mel'nikov <sup>4</sup> , A.V. Shestakov <sup>5</sup> , and A. Knigavko <sup>4,6</sup> <i>1)Optolink Ltd, Proez, Zelenograd, Moscow, Russian Federation. 2)Centro de Investigaciones en Óptica, León, Guanajuato, México. 3)A.M. Prokhorov General Physics Institute RAS, Moscow, Russian Federation. 4)High Q Laboratories Inc., Hamilton, Ontario, Canada. 5)ELS-94, Moscow, Russian Federation. 6)Physics Department, Brock University, St. Catharines, Ontario, Canada</i>	(13:55 14:20) <b>Fiber Characterization for high-speed WDM networks</b> (NEXT-GEN-25-2-3) Christine Tremblay <i>École de Technologie Supérieure, Montréal, Canada</i>	<b>Inometrix: Technology &amp; History in Brief</b> Michael Galle <i>Innotmetrix and U. of Toronto</i>

May 25th	BIO	OSD	PDS
14:20 14:40	<b>Spatio-temporal focussing: Towards an optically-sectionned widefield and ultra-rapid imaging technique for the analysis of calcium and electric activity (BIO-25-5-3)</b>  Olivier Dupont-Therrien, Stéphane Pagès, Paul DeKoninck, Daniel Côté <i>Centre de recherche de l'université Laval à Robert-Giffard</i>	<b>Integrate multiple spectro-metric techniques to continuously detect chemical and biological contaminants at low concentrations in drinking water system (OSD-25-3-3)</b>  Dongxin Hu, Abhijit Sinha and George A. Lampropoulos <i>A.U.G. Signals Ltd., Toronto, Ontario</i>	(14:30 14:50) <b>Emission Enhancement and Redistribution via Bloch Surface Waves (PDS-25-5-3)</b> M. Shi <sup>1</sup> , M. Galli <sup>2</sup> , D. Bajoni <sup>3</sup> , M. Patrini <sup>2</sup> , G. Dacarro <sup>2</sup> , M. Liscidini <sup>1,2</sup> , and J. Sipe <sup>1</sup> <sup>1</sup> <i>Dept. of Phys., Univ. of Toronto, Ontario, Canada.</i> <sup>2</sup> <i>Dept. of Phys. "A. Volta", Univ. of Pavia, Italy.</i> <sup>3</sup> <i>Dept. of Electronic Eng., University of Pavia, Italy</i>
14:40 15:00	<b>Optimization of geometrical configuration and increased power density of optical excitation in a microchip-based flow cytometer (microcytometer) (BIO-25-5-4)</b>  Chang-Qing Xu <i>McMaster University</i>	<b>Single image detector or eye with depth perception (OSD-25-3-4)</b>  Dawit Negussey <sup>1</sup> , James Flattery <sup>2</sup> James Mandel <sup>3</sup> , Bart Farrell <sup>4</sup> and Philipp Kornreich <sup>2</sup> . <sup>1</sup> <i>Civil Engineering Department, Syracuse University, Syracuse, N. Y.</i> <sup>2</sup> <i>EECS Department, Syracuse University Syracuse, N. Y.</i> <sup>3</sup> <i>Civil Engineering Department, (Retired) Syracuse University Syracuse, N. Y.</i> <sup>4</sup> <i>Institute for Sensory Research (ISR), Syracuse University, Syracuse, N. Y.</i>	(14:50 15:10) <b>Advances in dynamic holography applications by using the reversible photoinduced anisotropy in bacteriorhodopsin films (PDS-25-5-4)</b> E. Korchemskaya <sup>1,2</sup> , D. Stepanchikov <sup>3</sup> , T. Dyukova <sup>4</sup> , N. Burykin <sup>2</sup> <sup>1</sup> <i>Institute of Physics, 46 Prospect Nauki, Kiev 03028 Ukraine, elkorch@iop.kiev.ua;</i> <sup>2</sup> <i>Institute of Applied Optics, Kiev, Ukraine;</i> <sup>3</sup> <i>Zhytomir State University, Zhytomir, Ukraine;</i> <sup>4</sup> <i>Institute of Theoretical and Experimental Biophysics, Pushchino, Russia</i>
15:00 15:30	<b>COFFEE BREAK</b>		



May 25th	OPTO	FLD	NEXT-GEN	CIPI
14:20 14:40	<b>Characterization of the beam shaper and Fourier transform system in a prototype of the acousto-optical spectrometer for Mexican Large Millimeter Telescope (OPTO-25-4-3)</b> Alexandre S. Shcherbakov, Abraham Luna Castellanos, and Daniel Sanchez Lucero <i>National Institute for Astrophysics, Optics and Electronics (INAOE). Puebla, Mexico</i>	<b>Spectral filtering highly-chirped pulses in all-normal dispersion fiber lasers (FLD-25-1-3)</b> Brandon G. Bale <sup>1</sup> and J. Nathan Kutz <sup>2</sup> <i>1)Photonics Research Group, Aston University, Birmingham UK. 2)Department of Applied Mathematics, University of Washington, Seattle, WA</i>	(14:20 14:45) <b>Next Generation High Capacity Access Networks (NEXT-GEN-25-2-4)</b> Michel Bélanger <i>Nortel Networks</i>	<b>Optical Sensing for Defence and Security Applications Using Nano-hole Arrays</b> Alexandre Guimaraes-Brolo <i>U. Victoria and DRDC-Suffield</i>
14:40 15:00	-	<b>Code generator using distributed phase shifts applied on a chirped fiber Bragg grating in a semiconductor fiber ring laser (FLD-25-1-4)</b> Alexandre D. Simard and Sophie LaRochelle <i>Centre d'optique, photonique et laser (COPL), Université Laval, Québec, Canada</i>	(14:45 15:10) <b>TBD</b>	<b>Mid-Infrared Monolithic Fibre Laser</b> Réal Vallée <i>U. Laval and ExOptx</i>
15:00 15:30			<b>COFFEE BREAK</b>	

May 25th	BIO	OSD	PDS
CHAIR:		Peter Krug	
15:30 16:00	<p>Invited Speaker</p> <p><b>Biomarkers in Diffuse Optical Tomography and Spectroscopy – Moving from Qualitative to Quantitative and Cross-Correlated Interpretation</b> (BIO-25-6-1)</p> <p>Niculae Mincu, Salim Djeziri, Guobin Ma, Mario Khayat <i>ART Advanced Research Technologies Inc., Canada</i></p>	<p>Invited Speaker</p> <p><b>Temperature and Strain Characterization of Bragg Gratings Impressed with Femtosecond Laser Radiation in Suspended-Silica-Core Fibers</b> (OSD-25-4-1)</p> <p>L. A. Fernandes<sup>1,3</sup>, M. Becker<sup>2</sup>, O. Frazão<sup>1,3</sup>, M. Rothhardt<sup>2</sup>, S. Brückner<sup>2</sup>, K. Schuster<sup>2</sup>, J. Kobelke<sup>2</sup>, J. L. Santos<sup>1,3</sup>, P. V. S. Marques<sup>1,3</sup></p> <p><i>1) INESC Porto, Portugal 2) Institute of Photonic Technology, Jena, Germany 3) Dep. de Física, Faculdade de Ciências da Universidade do Porto, Porto, Portugal</i></p>	-
16:00 16:20	<p><b>Spatial localization of discrete fluorescent inclusions with early photons: An analysis on the stability with respect to variations of optical properties</b> (BIO-25-6-2)</p> <p>Geoffroy Bodi and Yves Bérubé-Lauzière <i>Laboratoire TomOptUS, Département de génie électrique et de génie informatique, Université de Sherbrooke, Canada</i></p>	<p><b>Velocity measurements comparison of water and pentane travelling in capillary optical fibers coated respectively with a xerogel and a poly(dimethylsiloxane) absorbing layer</b> (OSD-25-4-2)</p> <p>S. Caron<sup>1</sup>, C. Paré<sup>1</sup>, A. Proulx<sup>1</sup>, P. Grenier<sup>1</sup>, and V. Matejec<sup>2</sup></p> <p><i>1) INO, Québec, Canada. 2) Institute of Photonics and Electronics, Prague, Czech Republic</i></p>	-



May 25th	OPTO	FLD	NEXT-GEN	CIPPI
CHAIR:	Henry Schriemer	Réal Vallée		
<b>15:30 16:00</b>	<b>Fabrication-Tolerant 1310 nm Laterally-Coupled Distributed Feedback Lasers with High Sidemode Suppression Ratios (OPTO-25-5-1)</b> Ronald Millett, Henry Schriemer, Karin Hinzer, Kais Dridi and Trevor Hall <i>Centre for Research in Photonics, University of Ottawa, Ontario, Canada</i>	Invited Speaker <b>Properties and applications of fluoride glasses (FLD-25-2-1)</b> Marcel Poulain <i>UMR, Université de Rennes1, Campus Beaulieu, Rennes</i>	(15:30 16:15) <b>Panel</b>	(15:30 15:50) <b>Live Animal Imaging Active Stabilization Unit</b> Stéphane Pages <i>U. Laval and WDI</i>
<b>16:00 16:20</b>	<b>Simultaneous multi-wavelength quantum dot lasers for coherent terahertz generation (OPTO-25-5-2)</b> Z.G. Lu <sup>1</sup> , J.R. Liu <sup>1</sup> , P. Poole <sup>1</sup> , H.C. Liu <sup>1</sup> , X.P. Zhang <sup>2</sup> , P. Barrios <sup>1</sup> , D. Poitras <sup>1</sup> , S. Raymond <sup>1</sup> , G. Pakulski <sup>1</sup> , P. Grant <sup>1</sup> , and K. Wu <sup>3</sup> <i>1)Ins. for Microstructural Sciences, National Research Council, Ottawa, Canada. 2)Dept. of Electrical &amp; Computer Eng., Concordia University, Montreal, Canada. 3)Dept. of Electrical Eng., École Polytechnique de Montréal, Montreal, Canada</i>	<b>Recent Advances in Mid-IR Optical Fibres for Chemical and Biological Sensing in the 2-15μm spectral range (FLD-25-2-2)</b> Animesh Jha, Xin Jiang and Joris Lousteau <i>The Institute for Materials Research, Houldsworth Building, University of Leeds, Clarendon Road, Leeds, UK</i>	-	(15:50 16:10) <b>Integrated Dual-Wavelength Source for Microwave Photonics</b> Abdessamad Benhsaien <i>U. Ottawa and TeraXion</i>

May 25th	BIO	OSD	PDS
16:20 16:40	<p><b>A novel method for multiple lifetime recovery in time-domain nir imaging data (BIO-25-6-3)</b>            Simon Fortier, Guobin Ma and Muriel Jean-Jacques  <i>ART Advanced Research Technologies, Inc.</i></p>	<p><b>Open path spectroscopy of methane using a battery operated vertical cavity surface-emitting laser system (OSD-25-4-3)</b>            Matthew Dzikowski<sup>1</sup>, Aleksandr Klyashitsky<sup>1</sup>, Wolfgang Jaeger<sup>2</sup>, John Tulip<sup>1</sup>  <sup>1)Department of Electrical and Computer Engineering, University of Alberta, Edmonton, Canada 2)Department of Chemistry, University of Alberta, Edmonton, Canada</sup></p>	-
16:40 17:00	<p><b>Conformational dynamics of quantum dot-oligonucleotide systems revealed by single-molecule fluorescence spectroscopy (BIO-25-6-4)</b>            Maxim B. Prigozhin<sup>1,2</sup> Baoxu Liu<sup>2</sup>, W. Russ Algar<sup>1</sup>, Ulrich J. Krull<sup>1</sup>, Claudiu Gradinaru<sup>2</sup>  <sup>1)Chemical Sensors Group, and 2)Single-Molecule Biophysics Group, Department of Chemical and Physical Sciences, University of Toronto, Mississauga, Mississauga, Canada</sup></p>	-	-
17:00 17:20	<p><b>Biosensing with Total Internal Reflection polarimetry (BIO-25-6-5)</b>            M. Maisonneuve, S. Patskovsky, I-H. Song, M. Meunier  <i>Laser processing Laboratory, Department of Engineering Physics, École Polytechnique de Montréal, Canada</i></p>	-	-
18:00 20:00	-	-	-



May 25th	OPTO	FLD	NEXT-GEN	CIPI
16:20 16:40	<b>Injection Locked Fabry-Perot Lasers with Integrated Phase Modulators</b> (OPTO-25-5-3) Sareh Taebi and Simarjeet Singh Saini <i>ECE Department, University of Waterloo, Waterloo, Ontario, Canada</i>	<b>250 mW single-longitudinal-mode single-wavelength fiber laser using a fiber Fabry-Perot filter</b> (FLD-25-2-3) Gautam Das <i>Lakehead University, Canada</i>	-	(16:10 16:30) <b>Potential Methods for Identifying and Locating Fiber Breaks in a Fiber to the Home (FTTH) Passive Optical Network (PON)</b> Christine Tremblay <sup>1</sup> and André Girard <sup>2</sup> <sup>1</sup> )ETS, <sup>2</sup> )EXFO
16:40 17:00	-	-	-	(16:30 17:00) <b>The Development and Application of Photon-Based Technologies to Bioscience and Medicine: Future Outlook for USA</b> Dennis Matthews <i>CBST</i>
17:00 17:20	-	-	-	-
18:00 20:00	-	-	-	<b>Photonics North Cocktail &amp; Poster Presentation</b>

Tuesday AM , May 26th			
SESSION:	PLASM. / OSD: Room 2101	PDS: Room 2102 B	OPTO: Room 2103
CHAIR:	Jacques Albert	Henry Benisty	Henry Schriemer
08:30 09:15	Morning PLENARY 1 (PLEN-26-1) <b>Slow Light for Fast Computing</b> Philippe M. Fauchet <i>University of Rochester, USA - Room 2000A</i>		
09:15 10:00	Morning PLENARY 2 (PLEN-26-2) <b>Business Session</b>		
10:00 10:30	<b>COFFEE BREAK</b>		
10:30 11:00	Invited Speaker <b>Phase-sensitive Surface Plasmon Resonance methods for Studies of Biomolecular Interactions</b> (PLASMON-26-1-1) Aandrei V. Kabashin <i>Laboratoire Lasers, Plasmas et Procédés Photoniques (LP3 UMR 6182 CNRS), Faculté des Sciences de Luminy, Université de Méditerranée, Marseille, France</i>	Invited Speaker <b>Numerical Modeling Challenges for Guided-Wave Photonic Device Simulations</b> (PDS-25-6-1) H. E. Hernández-Figueroa, M. S. Gonçalves, and L. P. de Oliveira <i>Universidade Estadual de Campinas (UNICAMP)</i> <i>Faculdade de Engenharia Elétrica e de Computação (FEEC), Departamento de Microonda e Óptica (DMO), SP, Brazil</i>	Invited Speaker <b>Wavefront Engineering in Integrated Planar Waveguides</b> (OPTO-26-6-1) Andrew Kirk <i>Department of Electrical and Computer Engineering, McGill University, Montreal, Canada</i>
11:00 11:20	<b>SERS Gold Nanoparticles for Cancer Cell Surface Marker Detection</b> (PLASMON-26-1-2) Collin T. Nguyen <sup>1</sup> , James Nguyen <sup>1</sup> , Steven Rutledge <sup>3</sup> , Chen Wang <sup>2</sup> , Gilbert Walker <sup>1</sup> <sup>1</sup> <i>Department of Chemistry, Faculty of Arts and Science, University of Toronto, Ontario, Canada.</i> <sup>2</sup> <i>Department of Pathology &amp; Laboratory Medicine, Faculty of Medicine, Mount Sinai Hospital, Ontario, Canada.</i> <sup>3</sup> <i>Department of Electrical and Computer Engineering, Faculty of Applied Science and Engineering, University of Toronto, Ontario, Canada</i>	(11:00 11:30) Invited Speaker: <b>Discontinuous Galerkin Time-Domain Computations of Photonic Nanostructures</b> (PDS-25-6-2) Jens Niegemann, Michael König, Kai Stannigel, Michael Pieper, and Kurt Busch <i>Institut für Theoretische Festkörperphysik, Universität Karlsruhe (TH), Germany</i>	<b>Tunable silica-on-silicon planar lightwave circuits for signal processing applications</b> (OPTO-26-6-2) Claire Callender <sup>1</sup> , Patrick Dumais <sup>1</sup> , Sarkis Jacob <sup>1</sup> , Chantal Blanchetiere <sup>1</sup> , Chris Ledderhof <sup>1</sup> , Payman Samadi <sup>2</sup> , Irina Kostko <sup>2</sup> , Bing Xia <sup>2</sup> , Lawrence Chen <sup>2</sup> <sup>1</sup> <i>Communications Research Centre.</i> <sup>2</sup> <i>McGill University</i>



Tuesday AM , May 26th			
<b>08:15 08:55</b>	Morning Plenary 1		
<b>08:55 09:35</b>	Morning Plenary 2		
COFFEE BREAK			
<b>SESSION:</b>	<b>FLD: Room 2104 A</b>	<b>N-GEN: Room 2104 B</b>	<b>CIPPI: Room 2105</b>
<b>CHAIR:</b>	<b>Marcel Poulain</b>		
<b>10:30 11:00</b>	<p>Invited Speaker  <b>Radiation-Balanced Tm3+-Doped Fiber Amplifier</b>          (FLD-26-3-1)          Galina Nemova<sup>1</sup>, and Raman Kashyap<sup>1,2</sup>  <i>Department of Engineering Physics 1 and Department of Electrical Engineering 2, École Polytechnique de Montréal, Canada</i></p>	<p><b>Gain-Clamping and Data Filling for Simultaneous Transmission of Bursty Data packets and 10 Gbit/s Stream on a 640 km Optically Amplified Link</b>          (NEXT-GEN-26-1-1)          Serge Doucet, Jeffrey Johnson, Leslie A. Rush, Sophie LaRochelle  <i>Centre d'Optique, Photonique et Laser (COPL) Université Laval</i></p>	(10:00 12:30) <b>Photonics in Aerospace</b> (organized with CRIAQ - Dominique Sauvé)
<b>11:00 11:20</b>	<p><b>Optimization of signal gain and core composition for low photodegradation in Yb-doped fiber amplifiers</b>          (FLD-26-3-2)          Pierre Laperle, Louis Desbiens, Huimin Zheng, Karine Le Foulgoc, Mathieu Drolet, Pascal Deladurantaye, Antoine Proulx, and Yves Taillon  <i>INO, Quebec City, Canada</i></p>	<p><b>Optical Code Reflection Monitoring for Improved Resilience in Next-Generation Carrier-Grade Ethernet Access-Metro Networks</b>          (NEXT-GEN-26-1-2)          Kerim Fouli<sup>1</sup>, Martin Maier<sup>1</sup>, Hussein Mouttaah<sup>2</sup>  <i>1)INRS, Canada. 2)University of Ottawa, Canada</i></p>	(10:00 12:00) <ul style="list-style-type: none"> <li>-<b>Laser manufacturing of aircraft engine parts: end-user point of view</b>, Ludwik Strach, <i>Pratt&amp;Whitney Canada</i></li> <li>-<b>Advanced Instrumentation Requirements in Support of Gas Turbine Engine Development</b>, Daniel Summers-Lépine, <i>Pratt&amp;Whitney Canada</i></li> <li>-<b>Bombardier Aerospace</b></li> <li>- <b>Fiber Optic for Systems</b>, Francis Péloquin, <i>Bombardier Aérospatial</i></li> <li>-<b>Optical technology for 3D metrology in Aeronautics</b>, Stéphane Galibois, <i>Creaform3D</i></li> <li>-<b>Sensing requirements for damage prognosis in aerospace structures</b>, Patrice Masson, <i>U. Sherbrooke</i></li> <li>-<b>To be confirmed</b></li> </ul> <p>Raman Kashyap, <i>École Polytechnique de Montréal</i></p>



May 26th	PLASMON	PDS	OPTO
11:20 11:40	<p><b>Surface Plasmon Resonance optical fiber sensor for monitoring biochemical processes at the nanoscale</b>            (PLASMON-26-1-3)</p> <p>Yanina Shevchenko<sup>1</sup>, David A. D. Blair<sup>2</sup>, Tariq Francis<sup>2</sup>, Maria DeRosa<sup>2</sup>, Nur U. Ahamad<sup>2</sup>, Graham Galway<sup>2</sup>, Anatoli Ianoul<sup>2</sup> and Jacques Albert<sup>1</sup>  <i>1)Department of Electronics, Carleton University, Ottawa, Canada. 2)Department of Chemistry, Carleton University, Ottawa, Canada</i></p>	<p>(11:30 11:50) Towards external control of the emission directionality of organic microlasers (PDS-25-6-3)</p> <p>N. Djellali<sup>1</sup>, I. Gozhyk<sup>1</sup>, M. Lebental<sup>1</sup>, J. Lautru<sup>1</sup>, D. Owens<sup>2</sup>, C. Ulysse<sup>3</sup>, B. Kippelen<sup>2</sup>, and J. Zyss<sup>1</sup></p> <p><i>1)Laboratoire de Photonique Quantique et Moléculaire, Ecole Normale Supérieure de Cachan, CNRS UMR 8537, Cachan, France. 2)Center for Organic Photonics and Electronics, School of Electrical and Computer Engineering, Georgia Institute of Technology, Atlanta, GA, USA 3)Laboratoire de Photonique et Nanostructures, CNRS UPR20, Marcoussis, France</i></p>	<p>Birefringence measurement of silica-on-silicon channel waveguides (OPTO-26-6-3)</p> <p>Asad Khan<sup>1</sup>, Wahab Al-muhtadi<sup>1</sup> and Patrick Dumais<sup>2</sup></p> <p><i>1)Algonquin College, Ottawa, Ontario. 2)Communications Research Centre Canada, Ottawa, Ontario</i></p>
11:40 12:00	<p><b>Plasmonic devices on optical fibers for ultrasensitive chemical sensing</b>            (PLASMON-26-1-4)</p> <p>Gustavo Andrade<sup>1</sup>, Juliano Hayashi<sup>2</sup>, Antonio Marcos Brito Silva<sup>1</sup>, Cristiano M. B. Cordeiro<sup>2</sup>, and Alexandre G. Brolo<sup>1</sup>  <i>1)Department of Chemistry, University of Victoria, British Columbia, Canada. 2)Departamento de Física, Universidade Estadual de Campinas, Campinas, SP, Brazil</i></p>	-	-
12:00 13:30	<b>LUNCH</b>		



May 26th	FLD	NEXT-GEN	CIPI
11:20 11:40	<b>Characterization of semiconductor cylinder fiber light amplifier</b> (FLD-26-3-3) Bansal Madhukar <sup>1</sup> , Dawit Negussey <sup>2</sup> , Ronald Drake <sup>4</sup> , Zheng-Xuan Lai <sup>1</sup> , James Flattery <sup>1</sup> James Mandel <sup>2</sup> , and Philipp Kornreich <sup>1</sup> <i>1)Department, Syracuse University Syracuse, N.Y.</i> <i>2)Civil Engineering Department, Syracuse University Syracuse, N.Y.</i> <i>3)Civil Engineering Department, (Retired) Syracuse University Syracuse, N.Y.</i> <i>4)ACROLITE Inc. Rt. 5 Elbridge N.Y.</i>	<b>Passive optical network extensions for the future Internet requirements</b> (NEXT-GEN-26-1-3) Hassan Teimoori <sup>1</sup> , Atousa Assadihaghi <sup>1</sup> , Robert Radziewicz <sup>1</sup> , Sofia A. Paredes <sup>1</sup> , Serge Bidnyk <sup>2</sup> , Karin Hinzer <sup>1</sup> , Trevor Hall <sup>1</sup> <i>1)University of Ottawa, Ottawa, Canada.</i> <i>2)Enablence Technologies Inc., Kanata, Canada</i>	(10:00 12:30) <b>Photonics in Aerospace</b>
11:40 12:00	<b>Low cost supercontinuum generation using multi-mode 975-nm pump lasers</b> (FLD-26-3-4) Zhejing Jiao <sup>1</sup> , Xiupu Zhang <sup>1</sup> , Pin Long <sup>2</sup> , Zhenguo Lu <sup>3</sup> and Jiaren Liu <sup>3</sup> <i>1)Advanced Photonic Systems Lab, Department of Electrical and Computer Engineering, Concordia University, Montreal, Canada.</i> <i>2)O/E Land Inc., St Laurent, Québec.</i> <i>3)Inst. for Microstructural Sciences, NRC, Ottawa, Ontario</i>	<b>An analytical method for performance evaluation of a DQPSK channel in presence of OOK signal</b> (NEXT-GEN-26-1-4) Vahid Tavassoli, Thomas E. Darcie <i>University of Victoria, Canada</i>	(12:00 12:30) <b>Panel with presenters on how to increase collaboration between Aerospace and photonic groups</b>  (12:30 13:30) <b>LUNCH</b>
12:00 13:30	<b>LUNCH</b>		



Tuesday PM MAY 26th	PLASMON / OSD Room 2101	PDS Room 2102 B	OPTO Room 2103
CHAIR:	Jacques Albert	Kurt Busch	
13:30 14:00	<p>Invited Speaker</p> <p><b>Development of (bio)chemical sensors based on long-range surface plasmon waveguides</b> (PLASMON-26-2-1)</p> <p>Pierre Berini <i>School of Information Technology and Engineering, and Department of Physics University of Ottawa Ottawa, Canada. and Spectalis Corporation, Kanata North RPO, Ottawa, Canada</i></p>	<p>Invited Speaker</p> <p><b>Dispersion properties of photonic waveguide structures</b> (PDS-25-7-1)</p> <p>N. Le Thomas, J. Jágerská, H. Zhang, V. Zabelin and R. Houdré <i>Institut de Photonique et d'Electronique Quantiques, École Polytechnique Fédérale de Lausanne (EPFL), CH-1015 Lausanne, Switzerland</i></p>	-
14:00 14:20	<p><b>Selective Functionalization of Gold Arms of a Surface Plasmon Polariton Mach-Zehnder Interferometer for Biosensing</b> (PLASMON-26-2-2)</p> <p>Michal Tencer<sup>1,2</sup> and Pierre Berini<sup>1,3</sup> <i>1)University of Ottawa, School of Information Technology and Engineering, Ottawa, Ontario, Canada. 2)MST Consulting, Ottawa, Ontario, Canada cSpectalis Corp., Kanata North RPO, Ottawa, Ontario, Canada</i></p>	<p>(14:00 14:30) <b>Modeling and simulation of light interaction with retinal photoreceptors: challenges and observations</b> (PDS-25-7-2)</p> <p>Milica Popović <i>Department of Electrical and Computer Engineering McGill University, Montréal, Canada</i></p>	-
14:20 14:40	<p><b>Integrated chemical sensors based on the extraordinary optical transmission (EOT)</b> (OSD-26-5-1)</p> <p>Jacqueline Ferreira<sup>1</sup>, Carlos Escobedo<sup>2</sup>, Fathema Eftekhari<sup>3</sup>, David Sinton<sup>2</sup>, Reuven Gordon<sup>3</sup>, and Alexandre G. Brolo<sup>1</sup> <i>1)Department of Chemistry, 2)Department of Mechanical Engineering, 3)Department of Electrical Engineering, University of Victoria, Victoria, British Columbia, Canada</i></p>	<p>(14:30 14:50) <b>Optical properties of conjugated system on the surface of a metallic nanoparticle</b> (PDS-25-7-3)</p> <p>Chang, Railing <i>Institute of Optoelectronic Science, National Taiwan Ocean University</i></p>	-



Tuesday PM MAY 26th	FLD Room 2104 A	NEXT-GEN Room 2104 B	CIPI Room 2105
CHAIR:	Pierre Laperle		
13:30 14:00	<p>Invited Speaker</p> <p><b>Micro-milling process improvement using an agile pulse-shaping fiber laser (FLD-26-4-1)</b></p> <p>David Gay, Alain Cournoyer, Pascal Deladurantaye, Martin Briand, Vincent Roy, Bruno Labranche, Marc Levesque and Yves Taillon <i>INO, Quebec City, Canada</i></p>	-	<p>(13:30 17:00) <b>Future of Photonics</b></p> <p>(13:30 14:00) <b>Photonics and Economics</b> Eugene Arthurs, <i>SPIE</i></p>
14:00 14:20	<p><b>A Novel Technique for Electronic Phasing of High Power Fiber Amplifier Arrays (FLD-26-4-2)</b></p> <p>Dr. Thomas Shaya, Jeff Bakerb, Craig Robina, Lt. Chris Vergiena, Clint Zeringuea, David Gallantb, Benjamin Pulforda, Anthony D. Sanchezza, Chunte Lua, and Arthur Lucerob <i>Air Force Research Laboratory, Directed Energy Directorate, Kirtland, AFB, NM.</i> <i>Boeing LTS Inc., Albuquerque, NM</i></p>	-	<p>(14:00 14:30) <b>Photonics in the UK</b> Malcom Gower, <i>Imperial College, London</i></p>
14:20 14:40	<p><b>Influence of different laser operation regimes on the specific energy required for rock removal in oil and gas well drilling applications (FLD-26-4-3)</b></p> <p>Florian Albert<sup>1</sup>, Alexander Grimm<sup>1</sup>, Michael Schmidt<sup>1</sup>, Alain Cournoyer<sup>2</sup>, Martin Briand<sup>2</sup> and Pierre Galarneau<sup>2</sup> <sup>1)BLZ - Bayerishes Laserzentrum GmbH, Erlangen, Germany.</sup> <sup>2)INO, Quebec City, Canada</sup></p>	-	<p>(14:30 15:00) <b>Photonics in France</b> Christos Flytzanis, <i>Laboratoire Pierre Aigrain, ENS</i></p>



May 26th	OSD	PDS	OPTO
<b>14:40 15:00</b>	<b>Optical properties of gold particles of near micron-size: localized and propagating surface plasmons (OSD-26-5-2)</b> Ludovic S. Live, Marie-Pier Murray-Méthot, and Jean-Francois Masson <i>Département de Chimie, Université de Montréal, QC, Canada</i>	(14:50 15:10) <b>Characterization of the time-frequency parameters inherent in the radiation of semiconductor heterolasers using the interferometric technique (PDS-25-7-4)</b> Alexandre S. Shcherbakov <sup>1</sup> , Pedro Moreno Zarate <sup>1</sup> , Joaquin Campos Acosta <sup>2</sup> <sup>1</sup> <i>National Institute for Astrophysics, Optics and Electronics, Puebla, Mexico</i> <sup>2</sup> <i>Department of Metrology, Institute for Applied Physics (CSIC), Madrid, Spain</i>	-
<b>15:00 15:30</b>	<b>COFFEE BREAK</b>		
<b>15:30 16:00</b>	-	-	-
<b>16:00 16:30</b>	-	-	-
<b>16:30 17:00</b>	-	-	-
<b>17:00 17:30</b>	-	-	-
<b>18:00 19:00</b>	-	-	-
<b>19:00 23:00</b>	-	-	-



May 26th	FLD	NEXT-GEN	CIPPI
<b>14:40 15:00</b>	<b>Atmospheric Compensation and Tracking with a Fiber Phased Array (FLD-26-4-4)</b> Benjamin Pulford <sup>1</sup> , Dr. Thomas Shay <sup>1</sup> , Jeff Baker <sup>2</sup> , Angel Flores <sup>3</sup> , Craig Robin <sup>1</sup> , Lt. Chris Vergien <sup>1</sup> , Clint Zeringue <sup>1</sup> , David Gallant <sup>2</sup> , Anthony D. Sanchez <sup>1</sup> , Chunte Lu <sup>1</sup> , and Art Lucero <sup>2</sup> <sup>1)Air Force Research Laboratory, Directed Energy Directorate, Kirtland, AFB, NM.</sup> <sup>2)Boeing LTS Inc., Albuquerque, NM. 3)University of Miami-Dept of Electrical and Computer Engineering, Coral Gables, FL</sup>	-	(14:30 15:00) <b>Photonics in France</b>
<b>15:00 15:30</b>	<b>COFFEE BREAK</b>		
<b>15:30 16:00</b>	-	-	<b>Photonics in Germany</b> Michael Schmidt, <i>Lehrstuhl für Photonische Technologien</i>
<b>16:00 16:30</b>	-	-	<b>Photonics in Japan</b> Junji Yumoto, <i>NTT Basic research laboratory</i>
<b>16:30 17:00</b>	-	-	<b>Photonics in USA</b> Martin Richardson, <i>CREOL</i>
<b>17:00 17:30</b>	-	-	<b>Making Light Work for Canada</b> , Douglas James, <i>Consultant</i>
<b>18:00 19:00</b>	-	-	<b>CIPPI Cocktail</b> at La Chapelle du Petit Séminaire, Old Quebec
<b>19:00 23:00</b>	-	-	<b>CIPPI Banquet</b> at La Chapelle du Petit Séminaire, Old Quebec



<b>Wednesday</b>	<b>CIPI</b>
<b>May 27th</b>	<b>Room 208 AB</b>
<b>CHAIR:</b>	
<b>09:00 10:00</b>	<b>Update on CIPI network</b>
<b>10:00 10:30</b>	<b>CIPI business meeting CIPI-S annual meeting</b>
<b>10:30 10:45</b>	<b>COFFEE BREAK</b>
<b>10:45 12:00</b>	<b>CIPI Research projects: Information Technology</b>
<b>12:00 13:00</b>	<b>LUNCH Students Lunch</b>
<b>13:00 15:15</b>	<b>CIPI Research projects: Biophotonics</b>
<b>15:15 15:30</b>	<b>COFFEE BREAK</b>
<b>15:30 17:15</b>	<b>CIPI Research projects: Frontier Photonics</b>
	<b>END of Annual Meeting</b>