Photonics North
International Year of Light
2015

June 9-11, 2015
Ottawa, Shaw Centre
Ottawa, Canada

www.photonicsnorth.com
# Table of Contents

SHAW Centre ........................................................................................................................................... 4

General Information ................................................................................................................................. 5

Social Events ........................................................................................................................................... 6

General Information about Ottawa .......................................................................................................... 8

Organizing Committee ............................................................................................................................ 9

Oral Presentations .................................................................................................................................. 11

Poster Presentations ............................................................................................................................... 21

Exhibition ................................................................................................................................................ 27

Index ...................................................................................................................................................... 36
OTTAwA SHAw CENTRE
55 Colonel By Drive, Ottawa, Ontario K1N 9J2, Canada

GENERAL INFORMATION

Ottawa Shaw Centre
55 Colonel By Drive
Ottawa, Ontario
K1N 9J2

The conference and showcase will be held at the Ottawa Shaw Centre, in downtown Ottawa and close to the Parliament, cultural attractions as well as many hotels and restaurants.

Parking

Ottawa Shaw Centre parking is a 2-storey underground facility providing 748 spaces.

It is a fully-staffed facility with two entrances located on Daly Avenue and Nicholas Street South. There are four handicap spaces per level located on the north wall near the Rideau Centre entrances.

Registration and Information Hours

The registration desk will be opened according to the following schedule:

<table>
<thead>
<tr>
<th>Day</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuesday, June 9th</td>
<td>7:00 am to 5:00 pm</td>
</tr>
<tr>
<td>Wednesday, June 10th</td>
<td>7:30 am to 5:00 pm</td>
</tr>
<tr>
<td>Thursday, June 11th</td>
<td>8:00 am to 2:00 pm</td>
</tr>
</tbody>
</table>

Exhibition Dates and Hours

Ottawa Shaw Centre, Gatineau Salon

<table>
<thead>
<tr>
<th>Day</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wednesday, June 10th</td>
<td>10:00 am to 6:30 pm</td>
</tr>
<tr>
<td>Thursday, June 11th</td>
<td>10:00 am to 2:00 pm</td>
</tr>
</tbody>
</table>

Posters

Poster Session Reception, Exhibition Hall

Wednesday, June 10th
5:00 pm to 6:30

The poster area opens for set up on June 10th at 10:00 am. Your poster must be displayed from 5:00 pm to 6:30 on June 10th, and can be displayed up to 2:00 pm on June 11th. If your poster is not removed at the end of the exhibition it won’t be returned to you.

The poster presenters have to be near their poster boards during the poster session to answer questions from attendees.
PHOTONICS NORTH 2015

SOCIAL EVENTS

Monday June 8, 2015

Labs visit at the Advanced Research Complex (ARC)
Schedule: 2:00 pm to 5:00 pm
This centre is at the forefront of photonics research in Canada and aims to become one of the top research centres of its kind in the world. Building on the University’s strengths in physics, chemistry, electrical engineering and medicine, this multidisciplinary centre is developing the next generation of applications in photonics. Laboratories of Paul Corkum and Robert Boyd in the new ARC building will be open for visitors.

Tuesday June 9, 2015

Industry Student Lunch, Shaw Centre - Room #102
Schedule: 12pm - 1pm
A special program for students! Luncheon that gives you the opportunity to make valuable connections with industry professionals and peers. Don’t miss this opportunity to put your networking skills to good use.

Opening Reception and Public Session, University of Ottawa - Marion Hall
Schedule: 6pm - 7:30pm
To celebrate the year of the light, the opening reception will take place at The Marion Hall of the University of Ottawa and will be open at large to the general public. For this opening session, the Plenary speaker will be Klaus Löffler, Head of Sales for Laser Technology at the TRUMPF Group. He previously has worked at VolksWagen and he will do a presentation “Photonics for the Car of the future”.

Welcome Cocktail, University of Ottawa - Desmarais Building - room 4101
Schedule: 7:30pm - 9pm
A Welcome Cocktail will be held at Desmarais Building of the Ottawa University for our participants! Food, beverages and a perfect time for networking!

Wednesday June 10, 2015

Poster Cocktail, Shaw Centre - Exhibition Hall
Schedule: 5pm - 6:30pm
A special time to visit our exhibitors and network with the presenters about their posters.

OZ Optics Social Evening & BBQ
Schedule: 7pm - 10pm (Gates open at 6pm)
Join us at the OZ Optics campus for an evening of sports, fun, eating BBQ, drinking and socializing. Play soccer, tennis, beach volleyball and basketball in the OZ Dome, enjoy the indoor pool and many other activities! Transportation included.

Université d’Ottawa | University of Ottawa

PHOTONICS NORTH 2015

Public Presentation on June 9, 2015, from 6:30 p.m. to 7:30 p.m., in Marion Hall (uOttawa campus)
Klaus Loeffler
Director, International Sales
TRUMPF

“Photonics for the Car of the Future”
Cette présentation aura lieu en anglais seulement

Public Presentation on June 9, 2015, de 18 h 30 à 19 h 30, pavillon Marion (campus uOttawa)
Klaus Loeffler
Directeur, Ventes internationales
TRUMPF Laser

« La photonique et l’automobile de l’avenir »

Exposé public le 9 juin 2015, de 18 h 30 à 19 h 30, pavillon Marion (campus uOttawa)

Klaus Loeffler
Directeur, Ventes internationales
TRUMPF Laser

Notice biographique
Son expertise dans les lasers ne se limite pas à la conception de résonateurs, aux procédés d’excitation, au guidage de faisceaux et aux systèmes de détection, mais porte aussi sur le traitement et la turbine de matériel laser. Il a exercé plusieurs responsabilités chez Volkswagen et chez TRUMPF Laser et Systèmelectronique. Aujourd’hui, il est membre du conseil d’administration de TRUMPF Laser pour le secteur de la technologie laser et de l’électronique. Depuis 2007, il exerce différentes responsabilités au Laser Institute of America et, depuis 2013, il en assure la présidence.

Le stationnement payant est offert devant le pavillon Marion et sur le campus. Le pavillon Marion est situé au 38, rue Marie-Curie, Ottawa.
Veuillez adresser vos questions sur cet événement à Kristelle Brovkovich au 613-562-5800 poste 6446 ou par courriel à kbrovkov@uOttawa.ca

Résumé
Le secteur automobile est l’un des principaux utilisateurs de lasers dans la fabrication des véhicules automobiles. Pour respecter les réglementations plus rigoureuses régissant les émissions et la sécurité, les concepteurs doivent opter pour les pièces légères et les matières perfectionnées. Le laser joue un rôle déterminant dans l’atteinte de ces objectifs. Dès le début, le laser a été intégré aux automobiles et non seulement sous forme de diode laser de faible puissance dans les lecteurs CD. À l’heure actuelle, le laser est utilisé pour la conduite autonome, les nouveaux systèmes d’éclairage et l’élaboration des composants de cuivre. L’avenir est tout proche et les systèmes de propulsion non traditionnels, les nouvelles matières et possibilités, telles que la fabrication additive, montrent de nouvelles applications de la photonique dans l’automobile.

Abstract
The automotive industry is one of the major users of lasers for the production of car. The combination of more strict emission regulations and enhanced safety regulations drives the developers towards lightweight design and the use of further enhanced materials. The laser plays an initial role in achieving this goal. Since year one the laser also made it into the car, not only as a low power laser diode as part of the CD player. Now the laser is used for autonomous driving, new lighting systems and to eliminate copper in the car.

The future is almost around the corner: alternative propulsion systems, new materials and new possibilities like additive manufacturing show new ways for photonics in the car of the future.

Biography
Klaus Loeffler’s expertise in lasers extends from resonator design, excitation methods, beam delivery, sensor systems to laser material processing and sales. He has served in different responsibilities at Volkswagen and TRUMPF Laser and Systemtechnology. Today he is part of the management board of the TRUMPF business unit Laser technology/Electronic.
Starting in 2007 he served in different responsibilities at the Laser Institute of America and in 2013 as the President of USA.

Public parking is available in front of Marion Hall, and around campus. Marion Hall is located at 30 Marie-Curie, Ottawa.
If you have any questions about this event, please contact Kristelle Brovkovich at 613-562-5800 ext. 6446 or kbrovkov@uOttawa.ca
Meeting in Ottawa - Come early, stay late!

Centrally located with excellent air and transportation links, Ottawa is a premier Canadian meeting and convention destination. It is an impressive yet intimate G8 capital, home to famous landmarks, cultural attractions and celebrations, rich in natural beauty and blessed with a relaxed urban rhythm.

Adding unique Ottawa activities for delegates to your agenda is easy. And delegates themselves tend to arrive here early, stay after their event, and bring along their spouses to enjoy everything Canada’s Capital has to offer – helping your event attract more delegates in the process. And the new Ottawa Shaw Centre is located at the heart of it all – within easy walking distance of major downtown attractions, restaurants, and shopping, yet just a 20-minute shuttle ride from the Ottawa International Airport.

If you’re looking for Ottawa Attractions and things to do, you’ve come to the right place. Some of Ottawa’s best known highlights include:

- The Rideau Canal, Ontario’s first UNESCO World Heritage Site, winds its way through the city. In winter it becomes the world’s largest naturally frozen skating rink.
- Historic Parliament Hill is the seat of Canada’s national government and the setting for pomp, ceremony and celebration.
- Ottawa’s ByWard Market offers one-of-a-kind shops and boutiques, over 80 restaurants and cafés, a thriving nightlife, and Canada’s oldest continuously operating farmers’ market.

Ottawa, a place to discover!
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Room</th>
<th>Speaker(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:00</td>
<td>(THEORY-9-4-1)</td>
<td>Room 209</td>
<td>Silicon-germanium on insulator composition engineer for photonic and electronic applications</td>
</tr>
<tr>
<td>08:25</td>
<td>(THEORY-9-4-2)</td>
<td>Room 210</td>
<td>Lundeen, Jeff</td>
</tr>
<tr>
<td>08:50</td>
<td>(THEORY-9-4-3)</td>
<td>Room 211</td>
<td>(THEORY-9-4-4)</td>
</tr>
<tr>
<td>09:15</td>
<td>(THEORY-9-4-5)</td>
<td>Room 212</td>
<td>Vadikaram, Vivek</td>
</tr>
<tr>
<td>09:40</td>
<td>(THEORY-9-4-6)</td>
<td>Room 209</td>
<td>Diamond, Silicon-on-Sapphire, Lithium Niobate</td>
</tr>
<tr>
<td>10:05</td>
<td>(THEORY-9-4-7)</td>
<td>Room 210</td>
<td>(THEORY-9-4-8)</td>
</tr>
<tr>
<td>10:35</td>
<td>(THEORY-9-4-9)</td>
<td>Room 211</td>
<td>Highly nonlinear liquid-filled photonic crystal fibers</td>
</tr>
<tr>
<td>10:50</td>
<td>(THEORY-9-4-10)</td>
<td>Room 212</td>
<td>All-optical half-adder based on a hydrogenated amorphous silicon ring resonator</td>
</tr>
<tr>
<td>11:00</td>
<td>(THEORY-9-4-11)</td>
<td>Room 209</td>
<td>Observation of subluminal light carrying orbital angular momentum in vacuum</td>
</tr>
<tr>
<td>11:30</td>
<td>(THEORY-9-4-12)</td>
<td>Room 210</td>
<td>Observation of silica high-carrying initial angular momentum in vacuum</td>
</tr>
<tr>
<td>11:55</td>
<td>(THEORY-9-4-13)</td>
<td>Room 211</td>
<td>Observation of silica high-carrying initial angular momentum in vacuum</td>
</tr>
<tr>
<td>12:20</td>
<td>(THEORY-9-4-14)</td>
<td>Room 212</td>
<td>Optical packaging of silicon photonic devices using existing microelectronic assembly infrastructure</td>
</tr>
</tbody>
</table>
Optimization of laser cooling of semiconductor based detectors

Random Lasers, Lévy Statistics and Spin Glasses: what do they share in common?

Fiber laser: A new technique for the detection of trace gases

Nano-plasmonic devices for low power high speed interconnects

Novel polarization rotator design based on asymmetrical periodic loaded SOI waveguides

Improvement of nanograting formation as-
<table>
<thead>
<tr>
<th>Time</th>
<th>Room</th>
<th>Session</th>
<th>Speaker(s)</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:00</td>
<td>Room 209</td>
<td>(NONLINEAR-10-20-2)</td>
<td>Echternkamp, Katharina</td>
<td>Quantum Coherent Interaction of Electrons</td>
</tr>
<tr>
<td>11:15</td>
<td>Room 210</td>
<td>(SENSORS-10-21-2)</td>
<td>Kaviani, Hamidreza</td>
<td>All-Optical Phase Zone Plate for High Harmonic Generation</td>
</tr>
<tr>
<td>11:30</td>
<td>Room 211</td>
<td>(MANUFACTURING-10-23-2)</td>
<td>Hou, Renjie</td>
<td>Creating high-order harmonics with control</td>
</tr>
<tr>
<td>11:45</td>
<td>Room 212</td>
<td>(NONLINEAR-10-24-2)</td>
<td>Cooke, David</td>
<td>3-D Nonlinear inScripption of complex micro-patterns</td>
</tr>
<tr>
<td>13:45</td>
<td>Room 209</td>
<td>(NONLINEAR-10-25-1)</td>
<td>B. Bertrand, Julien</td>
<td>Following an Auger Decay by an Attosecond Pump-Probe Measurement</td>
</tr>
<tr>
<td>14:10</td>
<td>Room 210</td>
<td>(SENSORS-10-25-2)</td>
<td>Kallos, Themos</td>
<td>Observation of pseudospin-mediated phenomena in photonic graphene</td>
</tr>
<tr>
<td>14:35</td>
<td>Room 211</td>
<td>(MANUFACTURING-10-26-1)</td>
<td>Safari, Akbar</td>
<td>Visualization and quantification of cell morphology</td>
</tr>
<tr>
<td>14:50</td>
<td>Room 212</td>
<td>(HIGH POWER-10-27-1)</td>
<td>Chen, Zhigang</td>
<td>Phenomena of action potential</td>
</tr>
<tr>
<td>15:05</td>
<td>Room Exhibition Hall</td>
<td>(COMMERCIALIZATION-10-28.5-1)</td>
<td>De Leon, Israel</td>
<td>The scaling laws of spontaneous parametric down-conversion in As2Se3 microwires</td>
</tr>
</tbody>
</table>
## Photonic North 2015

### 33-Nonlinear Room 209

**Room 209**

**Chair:** Jeff Linden

8:00 (HIGH POWER-11-35-1)

**High Power-11-35-1**

Fritz, A. F. 

Finding the structure of the electron wave function at the tunnel exit in polyatomic molecules

8:00 (NONLINEAR-11-33-1)

**Nonlinear-11-33-1**

Boiadjiev, Marin

Nonlinearities in multi-well plasmonic sensors

8:00 (COMMERCIALIZATION-11-37-1)

**Commercialization-11-37-1**

Gurley, team

Enhancements to surface plasmon resonances for imaging

8:00 (HIGH POWER-11-35-2)

**High Power-11-35-2**

Biegel, Jens

Photodetection of molecular nitrogen using high-order harmonics of Ti:Sa and 400 nm femtosecond laser pulses

8:00 (PLASMONICS-11-36-2)

**Plasmonics-11-36-2**

Perreira, Ricardo

Long-range surface plasmon waveguides for leukemia detection

8:00 (SENSORS-11-34-1)

**Sensors-11-34-1**

Charette, Paul

Tabletop imaging of the proton migration process in the atrial cavity

8:00 (COMMERCIALIZATION-11-37-2)

**Commercialization-11-37-2**

Booij, team

Opportunity From Electronics to Electronic Optics

8:00 (COMMERCIALIZATION-11-37-3)

**Commercialization-11-37-3**

Charette, Paul

Enhancements to surface plasmon resonances for imaging

### 35-High Power Room 211

**Room 211**

**Chair:** Ravi Bhandari

8:00 (HIGH POWER-11-35-1)

**High Power-11-35-1**

Fritz, A. F. 

Finding the structure of the electron wave function at the tunnel exit in polyatomic molecules

8:00 (HIGH POWER-11-35-2)

**High Power-11-35-2**

Biegel, Jens

Photodetection of molecular nitrogen using high-order harmonics of Ti:Sa and 400 nm femtosecond laser pulses

8:00 (COMMERCIALIZATION-11-37-2)

**Commercialization-11-37-2**

Booij, team

Opportunity From Electronics to Electronic Optics

8:00 (COMMERCIALIZATION-11-37-3)

**Commercialization-11-37-3**

Charette, Paul

Enhancements to surface plasmon resonances for imaging

### 37-Commercialization Room Exhibition Hall

**Room Exhibition Hall**

**Chair:** Robert Correia

8:00 (COMMERCIALIZATION-11-37-2)

**Commercialization-11-37-2**

Booij, team

Opportunity From Electronics to Electronic Optics

8:00 (COMMERCIALIZATION-11-37-3)

**Commercialization-11-37-3**

Charette, Paul

Enhancements to surface plasmon resonances for imaging

### 38-PLENARY: Philip Russel - Room 210

**Room 210**

8:00 (COMMERCIALIZATION-11-37-2)

**Commercialization-11-37-2**

Booij, team

Opportunity From Electronics to Electronic Optics

8:00 (COMMERCIALIZATION-11-37-3)

**Commercialization-11-37-3**

Charette, Paul

Enhancements to surface plasmon resonances for imaging

---

### Schedule

- **08:00** - **08:15**
  - HIGH POWER-11-35-1: Fritz, A. F. - Finding the structure of the electron wave function at the tunnel exit in polyatomic molecules.
  - COMMERCIALIZATION-11-37-1: Gurley, team - Enhancements to surface plasmon resonances for imaging.

- **08:15** - **08:30**
  - NONLINEAR-11-33-1: Boiadjiev, Marin - Nonlinearities in multi-well plasmonic sensors.
  - COMMERCIALIZATION-11-37-2: Booij, team - Opportunity From Electronics to Electronic Optics.

- **08:30** - **08:45**
  - COMMERCIALIZATION-11-37-3: Charette, Paul - Enhancements to surface plasmon resonances for imaging.

- **08:45** - **09:00**
  - COMMERCIALIZATION-11-37-2: Booij, team - Opportunity From Electronics to Electronic Optics.

- **09:00** - **09:15**
  - COMMERCIALIZATION-11-37-3: Charette, Paul - Enhancements to surface plasmon resonances for imaging.

- **09:15** - **10:45**
  - HIGH POWER-11-35-2: Biegel, Jens - Photodetection of molecular nitrogen using high-order harmonics of Ti:Sa and 400 nm femtosecond laser pulses.
  - COMMERCIALIZATION-11-37-2: Booij, team - Opportunity From Electronics to Electronic Optics.
  - COMMERCIALIZATION-11-37-3: Charette, Paul - Enhancements to surface plasmon resonances for imaging.

- **10:45** - **11:00**
  - COMMERCIALIZATION-11-37-2: Booij, team - Opportunity From Electronics to Electronic Optics.

- **11:00** - **11:15**
  - COMMERCIALIZATION-11-37-3: Charette, Paul - Enhancements to surface plasmon resonances for imaging.

- **11:15** - **12:00**
  - COMMERCIALIZATION-11-37-2: Booij, team - Opportunity From Electronics to Electronic Optics.
  - COMMERCIALIZATION-11-37-3: Charette, Paul - Enhancements to surface plasmon resonances for imaging.

- **12:00** - **12:15**
  - COMMERCIALIZATION-11-37-2: Booij, team - Opportunity From Electronics to Electronic Optics.
  - COMMERCIALIZATION-11-37-3: Charette, Paul - Enhancements to surface plasmon resonances for imaging.

- **12:15** - **13:00**
  - COMMERCIALIZATION-11-37-2: Booij, team - Opportunity From Electronics to Electronic Optics.
  - COMMERCIALIZATION-11-37-3: Charette, Paul - Enhancements to surface plasmon resonances for imaging.

- **13:00** - **13:15**
  - COMMERCIALIZATION-11-37-2: Booij, team - Opportunity From Electronics to Electronic Optics.
  - COMMERCIALIZATION-11-37-3: Charette, Paul - Enhancements to surface plasmon resonances for imaging.

- **13:15** - **14:00**
  - COMMERCIALIZATION-11-37-2: Booij, team - Opportunity From Electronics to Electronic Optics.
  - COMMERCIALIZATION-11-37-3: Charette, Paul - Enhancements to surface plasmon resonances for imaging.

- **14:00** - **14:45**
  - COMMERCIALIZATION-11-37-2: Booij, team - Opportunity From Electronics to Electronic Optics.
  - COMMERCIALIZATION-11-37-3: Charette, Paul - Enhancements to surface plasmon resonances for imaging.

- **14:45** - **15:30**
  - COMMERCIALIZATION-11-37-2: Booij, team - Opportunity From Electronics to Electronic Optics.
  - COMMERCIALIZATION-11-37-3: Charette, Paul - Enhancements to surface plasmon resonances for imaging.

- **15:30** - **16:15**
  - COMMERCIALIZATION-11-37-2: Booij, team - Opportunity From Electronics to Electronic Optics.
  - COMMERCIALIZATION-11-37-3: Charette, Paul - Enhancements to surface plasmon resonances for imaging.

- **16:15** - **17:00**
  - COMMERCIALIZATION-11-37-2: Booij, team - Opportunity From Electronics to Electronic Optics.
  - COMMERCIALIZATION-11-37-3: Charette, Paul - Enhancements to surface plasmon resonances for imaging.

---

**Programme Content**

- **33-Nonlinear Room 209**
  - **Chair:** Jeff Linden
  - **HIGH POWER-11-35-1**
    - Fritz, A. F. - Finding the structure of the electron wave function at the tunnel exit in polyatomic molecules.
  - **COMMERCIALIZATION-11-37-1**
    - Gurley, team - Enhancements to surface plasmon resonances for imaging.

- **35-High Power Room 211**
  - **Chair:** Ravi Bhandari
  - **HIGH POWER-11-35-1**
    - Fritz, A. F. - Finding the structure of the electron wave function at the tunnel exit in polyatomic molecules.
  - **HIGH POWER-11-35-2**
    - Biegel, Jens - Photodetection of molecular nitrogen using high-order harmonics of Ti:Sa and 400 nm femtosecond laser pulses.
  - **COMMERCIALIZATION-11-37-2**
    - Booij, team - Opportunity From Electronics to Electronic Optics.
  - **COMMERCIALIZATION-11-37-3**
    - Charette, Paul - Enhancements to surface plasmon resonances for imaging.

- **37-Commercialization Room Exhibition Hall**
  - **Chair:** Robert Correia
  - **COMMERCIALIZATION-11-37-2**
    - Booij, team - Opportunity From Electronics to Electronic Optics.
  - **COMMERCIALIZATION-11-37-3**
    - Charette, Paul - Enhancements to surface plasmon resonances for imaging.
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>15:25</td>
<td>GREEN</td>
<td>Lateral-grown silicon wires for efficiency enhancement of single-crystalline silicon solar cells</td>
<td>Ye, Winnie N.</td>
</tr>
<tr>
<td>15:25</td>
<td>SENSORS</td>
<td>Development of Compact Fiber-Optics Based Multiphoton Imaging System</td>
<td>Tang, Shuo</td>
</tr>
<tr>
<td>15:25</td>
<td>MATERIALS</td>
<td>Perovskite materials for energy-related applications</td>
<td>Nechache, Riad</td>
</tr>
<tr>
<td>15:25</td>
<td>QUANTUM</td>
<td>Application of Four-Wave Mixing for Quantum Information</td>
<td>Farsi, Alessandro</td>
</tr>
<tr>
<td>15:50</td>
<td>GREEN</td>
<td>Anti-reflection coatings based on cellulose paper</td>
<td>Munday, Jeremy</td>
</tr>
<tr>
<td>15:50</td>
<td>SENSORS</td>
<td>Surface Plasmonic Array Sensors (SpAS): Modular Sensing from Colorimetric to SERS</td>
<td>Saini, Simarjeet Singh</td>
</tr>
<tr>
<td>15:50</td>
<td>MATERIALS</td>
<td>Synthesis and Photoluminescence Studies of Quantum Dots for Photonic Applications</td>
<td>Gondal, Mohammed a</td>
</tr>
<tr>
<td>15:50</td>
<td>QUANTUM</td>
<td>Thz-bandwidth molecular memories for light</td>
<td>Bustard, Phillip</td>
</tr>
<tr>
<td>16:15</td>
<td>GREEN</td>
<td>Antireflection coatings with embedded silver nanoparticles for silicon solar cells</td>
<td>Cala' Lesina, Antonino</td>
</tr>
<tr>
<td>16:15</td>
<td>SENSORS</td>
<td>Photonic nanojet effect of surface nanostructured dielectric microcylinders</td>
<td>Chen, Ran</td>
</tr>
<tr>
<td>16:15</td>
<td>MATERIALS</td>
<td>Fast and continuous supercritical synthesis of gallium nitride quantum dots</td>
<td>Giroire, Baptiste</td>
</tr>
<tr>
<td>16:15</td>
<td>QUANTUM</td>
<td>Thz-bandwidth molecular memories for light</td>
<td>Bustard, Phillip</td>
</tr>
<tr>
<td>16:30</td>
<td>GREEN</td>
<td>Bit Rate Matching for Energy Efficient Optical Networks</td>
<td>Lourdiane, Mounia</td>
</tr>
<tr>
<td>16:30</td>
<td>SENSORS</td>
<td>Multi-channel fiber-optic fluorescence sensor</td>
<td>Chiniforooshan, Yasser</td>
</tr>
<tr>
<td>16:30</td>
<td>MATERIALS</td>
<td>Quantum-Confinement Effects on Oscillator Strength in ZnO Quantum Dots</td>
<td>Tit, Nacir</td>
</tr>
<tr>
<td>16:30</td>
<td>QUANTUM</td>
<td>Thz-bandwidth molecular memories for light</td>
<td>Bustard, Philip</td>
</tr>
<tr>
<td>16:45</td>
<td>SENSORS</td>
<td>Fiber-Mirror Integrated Compliant Mechanical System for Measuring Force and Displacement</td>
<td>Marzban, Mostapha</td>
</tr>
<tr>
<td>16:45</td>
<td>MATERIALS</td>
<td>Tunable and Bimodal Luminescent Close-Packed Quantum Dot-AlPO4 Glass Films</td>
<td>Wang, Yan</td>
</tr>
<tr>
<td>17:00</td>
<td>SENSORS</td>
<td>Compact Vector Bending Sensor Based on Dual Diode</td>
<td>Feng, Dingyi</td>
</tr>
<tr>
<td>17:00</td>
<td>MATERIALS</td>
<td>Layered and Nanotubular Vanadium Pentoxide Thin Films for Electrochromic Applications</td>
<td>Truong, Vo-Van</td>
</tr>
</tbody>
</table>
POSTER PRESENTATIONS
Wednesday June 10, 2015

HIGH POWER LASER TECHNOLOGY, ULTRAFAST OPTICS AND APPLICATIONS

(HIGH POWER-10-P-1) GROWTH OF LASER-INDUCED PERIODIC SURFACE STRUCTURES UNDER COMPETING ABLATION AND PHOTO-EXPANSION MECHANISMS
Déziel, Jean-Luc, Université Laval, Canada

(HIGH POWER-10-P-2) TRACKING OBJECTS HIDDEN AROUND CORNERS
Gariepy, Genevieve, Heriot-Watt University, UK

(HIGH POWER-10-P-3) COMPARISON OF 2.7 MICRON FLUORESCENT SPECTRA OF ER-ZBLAN WITH 980 NM AND 790 NM PUMPING
Berge, Cameron, McGill University, Canada

(HIGH POWER-10-P-4) SEQUENTIAL AND CONCERTED BREAKUP OF (CO)2
Ding, Xiaoyan, JASLAB, University of Ottawa and National Research Council Canada, Canada

(HIGH POWER-10-P-5) SPATIAL PROPERTIES OF HIGH-HARMONICS
Brown, Graham, University of Ottawa, Canada

(HIGH POWER-10-P-6) A MASS SPECTROMETER ADAPTED FOR IONIZATION AND ABLATION OF SAMPLES WITH FEMTOSECOND LASER PULSES
Chiasson, Martin, University of Ottawa, Canada

(HIGH POWER-10-P-7) FULL CHARACTERIZATION OF AN ATTOSECOND PULSE GENERATED USING AN INFRARED DRIVER
Zhang, Chunmei, Joint Attosecond Science Lab, NRC and University of Ottawa, Canada

(HIGH POWER-10-P-8) ELECTROMAGNETIC FIELDS OF AN ULTRASHORT TIGHTLY FOCUSED LASER PULSE
Salamin, Yousef, American University of Sharjah, United Arab Emirates

NONLINEAR OPTICS, NANO PHOTONICS AND QUANTUM OPTICS

(NONLINEAR-10-P-9) DIODE PUMPED S32 NM SINGLE-FREQUENCY Nd:YVO4 LASER WITH ETALONS AT ROOM TEMPERATURE
Liang, Wanguo, Fujian Institute of Research on the Structure of Matter, Chinese Academy of Sciences, China

(NONLINEAR-10-P-10) OPTICAL FREQUENCY COMB GENERATION VIA CASCaded BRILLouIN SCATTERING IN A NONLINEAR MEDIA
Kayses, Me Imrul, McGill University, Canada

(NONLINEAR-10-P-11) MID-INFRARED RAMAN FIBER LASER IN CHALCOGENIDE MICROWIRE
Abdukerim, Nurmemet, McGill University, Canada

(NONLINEAR-10-P-12) THE ROLE OF ENERGETIC ELECTRONS IN AIR LASING
Britton, Mathew, uOttawa/NRC, Canada

(NONLINEAR-10-P-13) NONLINEAR ULTRAFAST CARRIER DYNAMICS IN GATED GRAPHENE REVEALED BY TIME-RESOLVED TERAHertz SPECTROSCOPY
Hafez, Hassan, INRS-EMT, Canada

OPTICAL AND QUANTUM COMMUNICATIONS

(OP-QUANTUM-10-P-14) INVESTIGATING THE EFFECT OF MUX BANDWIDTH ON HYBRID COMMUNICATION SYSTEMS PERFORMANCE
Atieh, Ahmad, Université Laval, Canada

(OP-QUANTUM-10-P-15) OPTOCHMICALLY ORGANIZED FILAMENTS OF LIGHT: FROM WAVEGUIDE ENCODED INTERSECTING (WIDEI) POLYMER LATTICES TO SPONTANEOUS, ALL-OPTICAL TRANSFER OF SIGNALS
Saravanamutti, Kalichakhi, McMaster University, Canada

(OP-QUANTUM-10-P-16) A NEW ARCHITECTURE OF ALL OPTICAL NETWORK BASED ON TUNABLE OPTICAL BUFFER AND WAVELENGTH CONVERSION USING WIDE BAND SEMICONDUCTORS OPTICAL AMPLIFIER
Fayed, Heba, AASTMT, Egypt

(OP-QUANTUM-10-P-17) DEMULTIPLEXING BY INDEPENDENT COMPONENT ANALYSIS IN COHERENT OPTICAL TRANSMISSION: THE POLARIZATION CHANNEL ALIGNMENT PROBLEM
Nabavi, Neda, JASLAB, University of Ottawa, Canada

(OP-QUANTUM-10-P-18) INFLUENCE OF TOD, IRS AND SS ON SOLITON INTERACTION
Mani, Bhupeshwaran, SSN College of Engineering, Anna University, India

OPTOELECTRONICS AND INTEGRATED OPTICS

(OPTO-10-P-19) SPONTANEOUS EMISSION AND REFLECTIVITY MEASUREMENTS FOR THE CHARACTERIZATION OF FACET-COATINGS OF SEMICONDUCTOR LASERS
Chang, Shoude, National Research Council Canada, Canada

(OPTO-10-P-20) HOMOGENIZATION OF NANOSTRUCTURE WAVEGUIDES IN THE NON-RESONANT AND RESONANT REGIMES
Samadian, Parya, University of Ottawa, Canada

(OPTO-10-P-21) DESIGN AND FABRICATION OF HIGH-REFLECTANCE COATINGS ON ETCHED-FACET DEVICES
Poitras, Daniel, National Research Council of Canada, Canada

(OPTO-10-P-22) MEASUREMENT OF OPTICAL LOSSES IN SILICON PHOTONIC CONTRA-DIRECTIONAL COUPLERS
Caverley, Michael, University of British Columbia, Canada

(OPTO-10-P-23) VISIBLE LIGHT COMMUNICATION UNDERWATER
Salamah, Maram, Arab Academy for Science, Technology and Maritime Transport, Egypt

(OPTO-10-P-24) TERAHertz REFLECTION TIME-DOMAIN SPECTROSCOPY FOR BANDGAP MEASUREMENT OF PERIODIC STRUCTURES
Novoa Lopez, José Antonio, Carleton University/ Universidade de Vigo, Canada

(OPTO-10-P-25) USING A TRAVELING WAVE MODEL FOR OPTICAL CIRCUIT SIMULATION OF SEMICONDUCTOR OPTICAL AMPLIFIERS
Smy, Tom, Carleton University, Canada
PHOTONIC MATERIALS

(MATERIALS-10-P-26) POLARIZED LASER EMISSION FROM A (YBX:Y1-X)3AL5O12 CERAMIC LASER USING ANISOTROPIC BRAGG MIRROR FABRICATED WITH GLANCING ANGLE DEPOSITION.
Doucet, Alexandre, Université de Montréal, Canada

(MATERIALS-10-P-27) ANNEALING TEMPERATURES AND HYDROGEN EVOLUTION IN SILICON QUANTUM DOTS IN HYDROGENATED SILICON NITRIDE
Cadogan, Carolyn, The University of Western Ontario, Canada

(MATERIALS-10-P-28) OPTICAL PROPERTIES OF CHOLESTERIC FILM FABRICATED BY A REACTIVE MESOGEN
Jhun, Chul Gyu, Hoseo University

(MATERIALS-10-P-30) CBSTHIN FILM MATERIALS FOR ELECTRO-OPTIC DEVICE APPLICATIONS
Hossain, Nadir, INRS-EMT, Canada

PHOTONIC SENSORS AND BIOMEDICAL OPTICS

(SENSORS-10-P-31) EFFECTS OF ALLOYING ON OSCILLATOR STRENGTH IN INGaN/GAN QUANTUM WELLS
Tit, Nacir, UAE University, United Arab Emirates

(SENSORS-10-P-32) CAVITY-ENHANCED PHOTOACOUSTIC DETECTION USING ACOUSTIC AND OPTICAL-FIBER RESONATORS
Loock, Hans-Peter, Queen’s University, Canada

(SENSORS-10-P-33) ISOTHERMAL ANNEALING OF HIGH TEMPERATURE STABLE HYDROGEN LOADED FIBER BRAGG GRATINGS
Alqarni, Sondos, Carleton University, Canada

(SENSORS-10-P-34) INVESTIGATING THE IMPACT OF LASER PULSE SHAPE ON MICROCAVITATION-INDUCED RPE CELL INJURY.
Deladurantaye, Pascal, INO, Canada

(SENSORS-10-P-35) BIOMCOMPATIBILITY OF POLYMER MATERIALS FOR OPTO MICROFLUIDIC APPLICATIONS
Fanous, Michael, Concordia University, Canada

(SENSORS-10-P-36) TOTAL JAUNDICE MANAGEMENT USING LASER DIODES, LEDs AND OLEDS FOR NEWBORN INFANTS
Hamza, Mostafa, Faculty of Engineering, Mansoura University, Mansoura, Egypt

(SENSORS-10-P-37) TEMPERATURE-SENSITIVE OPTICAL MEMS ACCELEROMETER
Vellaluru, Neeraj, BITS Pilani, Hyderabad Campus, India

(SENSORS-10-P-38) TUNABLE FBGS FOR WAVELENGTH SCANNING
Thomas, Saju, O/E Land Inc., Canada

(SENSORS-10-P-39) SURFACE PLASMONIC EFFECT FROM TAPERED OPTICAL FIBER COATED WITH NANOPARTICLES
Men, Liqiu, Memorial University of Newfoundland, Canada

(SENSORS-10-P-40) DIFFRACTIVE GRATING BASED OPTO-MICROFLUIDIC SENSOR FOR REFRACTIVE INDEX SENSING
Zhang, Daiying, Memorial University of Newfoundland, Canada

PHOTONIC THEORY DESIGN AND SIMULATIONS

(THEORY-10-P-48) NUMERICAL RESEARCH ON A DUAL-MODE SAMPLED-GRATING QUANTUM-DOT BASED INP/INGAASP DFB LASER FOR W-BAND RoF APPLICATION
Li, Ran, University of Ottawa, Canada

(THEORY-10-P-49) A NOVEL FDTD ALGORITHM FOR SUPERCONTINUUM GENERATION STUDIES IN PHOTONIC CRYSTAL FIBERS
Salski, Bartlomiej, Warsaw University of Technology, Poland

(THEORY-10-P-50) A COMPACT AND BROADBAND SILICON-ON-INSULATOR POLARIZATION SPLITTER AND ROTATOR
Rumaldo, Yesica, Unicamp, Brazil

(THEORY-10-P-51) TOWARD THE OPTICAL FLYING CARPET: REDUCING THE DIVERGENCE OF A LIGHT SHEET BELOW DIFFRACTION LIMIT
Golub, Ilya, Algorkin University, Canada

(THEORY-10-P-52) SEPARATING THE SIAMESE TWINS: DECOUPLING CIRCULAR AND LINEAR BIREFRINGENCIES USING A PI-SHIFTED SAGNAC INTERFEROMETER
Golub, Ilya, Algorkin College, Canada

(THEORY-10-P-53) AN FSK-FREE SILICON RESONATOR REFLECTOR USING A CONTRA-DIRECTIONAL COUPLER AND A BRAGG REFLECTOR
Boeck, Robert, University of British Columbia, Canada

PHOTONICS IN MANUFACTURING

(MANUFACTURING-10-P-55) FEMTOSSECOND LASER PULSE TRAIN MICROMACHINING OF SILICON
Alemida, Gustavo, University of São Paulo, Brasil

(MANUFACTURING-10-P-57) 3D PRINTED KIT FOR BLOOD PLASMA SEPARATION AND FLUORESCENT DETECTION OF PROTEINS
Jagadeesh, Shreeshan, University of Toronto, Canada

PHOTONICS NORTH 2015

PHOTONIC MATERIALS

(MATERIALS-10-P-26) POLARIZED LASER EMISSION FROM A (YBX:Y1-X)3AL5O12 CERAMIC LASER USING ANISOTROPIC BRAGG MIRROR FABRICATED WITH GLANCING ANGLE DEPOSITION.
Doucet, Alexandre, Université de Montréal, Canada

(MATERIALS-10-P-27) ANNEALING TEMPERATURES AND HYDROGEN EVOLUTION IN SILICON QUANTUM DOTS IN HYDROGENATED SILICON NITRIDE
Cadogan, Carolyn, The University of Western Ontario, Canada

(MATERIALS-10-P-28) OPTICAL PROPERTIES OF CHOLESTERIC FILM FABRICATED BY A REACTIVE MESOGEN
Jhun, Chul Gyu, Hoseo University

(MATERIALS-10-P-30) CBSTHIN FILM MATERIALS FOR ELECTRO-OPTIC DEVICE APPLICATIONS
Hossain, Nadir, INRS-EMT, Canada

PHOTONIC SENSORS AND BIOMEDICAL OPTICS

(SENSORS-10-P-31) EFFECTS OF ALLOYING ON OSCILLATOR STRENGTH IN INGaN/GAN QUANTUM WELLS
Tit, Nacir, UAE University, United Arab Emirates

(SENSORS-10-P-32) CAVITY-ENHANCED PHOTOACOUSTIC DETECTION USING ACOUSTIC AND OPTICAL-FIBER RESONATORS
Loock, Hans-Peter, Queen’s University, Canada

(SENSORS-10-P-33) ISOTHERMAL ANNEALING OF HIGH TEMPERATURE STABLE HYDROGEN LOADED FIBER BRAGG GRATINGS
Alqarni, Sondos, Carleton University, Canada

(SENSORS-10-P-34) INVESTIGATING THE IMPACT OF LASER PULSE SHAPE ON MICROCAVITATION-INDUCED RPE CELL INJURY.
Deladurantaye, Pascal, INO, Canada

(SENSORS-10-P-35) BIOMCOMPATIBILITY OF POLYMER MATERIALS FOR OPTO MICROFLUIDIC APPLICATIONS
Fanous, Michael, Concordia University, Canada

(SENSORS-10-P-36) TOTAL JAUNDICE MANAGEMENT USING LASER DIODES, LEDs AND OLEDS FOR NEWBORN INFANTS
Hamza, Mostafa, Faculty of Engineering, Mansoura University, Mansoura, Egypt

(SENSORS-10-P-37) TEMPERATURE-SENSITIVE OPTICAL MEMS ACCELEROMETER
Vellaluru, Neeraj, BITS Pilani, Hyderabad Campus, India

(SENSORS-10-P-38) TUNABLE FBGS FOR WAVELENGTH SCANNING
Thomas, Saju, O/E Land Inc., Canada

(SENSORS-10-P-39) SURFACE PLASMONIC EFFECT FROM TAPERED OPTICAL FIBER COATED WITH NANOPARTICLES
Men, Liqiu, Memorial University of Newfoundland, Canada

(SENSORS-10-P-40) DIFFRACTIVE GRATING BASED OPTO-MICROFLUIDIC SENSOR FOR REFRACTIVE INDEX SENSING
Zhang, Daiying, Memorial University of Newfoundland, Canada

PHOTONIC THEORY DESIGN AND SIMULATIONS

(THEORY-10-P-48) NUMERICAL RESEARCH ON A DUAL-MODE SAMPLED-GRATING QUANTUM-DOT BASED INP/INGAASP DFB LASER FOR W-BAND RoF APPLICATION
Li, Ran, University of Ottawa, Canada

(THEORY-10-P-49) A NOVEL FDTD ALGORITHM FOR SUPERCONTINUUM GENERATION STUDIES IN PHOTONIC CRYSTAL FIBERS
Salski, Bartlomiej, Warsaw University of Technology, Poland

(THEORY-10-P-50) A COMPACT AND BROADBAND SILICON-ON-INSULATOR POLARIZATION SPLITTER AND ROTATOR
Rumaldo, Yesica, Unicamp, Brazil

(THEORY-10-P-51) TOWARD THE OPTICAL FLYING CARPET: REDUCING THE DIVERGENCE OF A LIGHT SHEET BELOW DIFFRACTION LIMIT
Golub, Ilya, Algorkin University, Canada

(THEORY-10-P-52) SEPARATING THE SIAMESE TWINS: DECOUPLING CIRCULAR AND LINEAR BIREFRINGENCIES USING A PI-SHIFTED SAGNAC INTERFEROMETER
Golub, Ilya, Algorkin College, Canada

(THEORY-10-P-53) AN FSK-FREE SILICON RESONATOR REFLECTOR USING A CONTRA-DIRECTIONAL COUPLER AND A BRAGG REFLECTOR
Boeck, Robert, University of British Columbia, Canada

PHOTONICS IN MANUFACTURING

(MANUFACTURING-10-P-55) FEMTOSSECOND LASER PULSE TRAIN MICROMACHINING OF SILICON
Alemida, Gustavo, University of São Paulo, Brasil

(MANUFACTURING-10-P-57) 3D PRINTED KIT FOR BLOOD PLASMA SEPARATION AND FLUORESCENT DETECTION OF PROTEINS
Jagadeesh, Shreeshan, University of Toronto, Canada
## PLASMONICS AND METAMATERIALS

(PLASMONICS-10-P-58)
**AN ULTRA-COMPACT NANOPLASMONIC HIGH-PASS WAVELENGTH FILTER AT TELECOMMUNICATION WAVELENGTHS BASED ON A MIM WAVEGUIDE**

Ebadi, Seyed Morteza, Kermanshah Science and Research Branch, Islamic Azad University, Iran

(PLASMONICS-10-P-59)
**ANGULAR MOMENTUM DENSITY OF SURFACE PLASMON ENHANCED ELECTROMAGNETIC FIELDS EXCITED BY TIGHTLY FOCUSED STATISTICAL BEAMS**

Cheng, Hao, Dalhousie University, Canada

(PLASMONICS-10-P-60)
**LONG-RANGE SURFACE PLASMON MULTIPLE OUTPUT MACH-ZEHNDER INTERFEROMETERS**

Fan, Hui, University of Ottawa, Canada

(PLASMONICS-10-P-61)
**CHARACTERIZATION OF LONG-RANGE SURFACE PLASMON BRAGG GRATINGS WITH MICROFLUIDIC CHANNELS**

Khodami, Maryam, University of Ottawa, Canada

(PLASMONICS-10-P-62)
**HIGH SPEED SURFACE PLASMON NANOANTENNA-BASED PHOTODETECTORS**

Siadat Mousavi, Saba, University of Ottawa, Canada

(PLASMONICS-10-P-63)
**A TUNABLE NANOPLASMONIC HIGH PASS WAVELENGTH FILTER EMBEDDED IN A MIM WAVEGUIDE**

Ebadi, Seyed Morteza, Science and Research Branch, Islamic Azad University, IRAN

(PLASMONICS-10-P-64)
**A NOVEL PLASMONIC HIGH PASS WAVELENGTH FILTER BASED ON TRIANGULAR ARRAYS IN A MIM WAVEGUIDE**

Ebadi, Seyed Morteza, Science and Research Branch, Islamic Azad University, IRAN

(PLASMONICS-10-P-65)
**A DUAL BANDPASS PLASMONIC FILTER BASED ON MIM STEPPED IMPEDANCE RESONATOR**

Ebadi, Seyed Morteza, Science and Research Branch, Islamic Azad University, IRAN

(PLASMONICS-10-P-66)
**GRATING ASSISTED SEMICONDUCTOR PLASMONIC WAVEGUIDES**

Chochol, Jan, Dalhousie University

(PLASMONICS-10-P-67)
**A NEW PLASMONIC LONG WAVELENGTH CUTOFF FILTER BASED ON TRIANGULAR ARRAYS IN A MIM WAVEGUIDE**

Ebadi, Seyed Morteza, Science and Research Branch, Islamic Azad University, IRAN

(PLASMONICS-10-P-68)
**A TUNABLE WAVELENGTH BAND PASS PLASMONIC FILTER BASED ON TRIANGULAR ARRAYS IN A MIM WAVEGUIDE**

Ebadi, Seyed Morteza, Science and Research Branch, Islamic Azad University, IRAN

(PLASMONICS-10-P-69)
**A DUAL BAND-PASS PLASMONIC FILTER BASED ON STUB STRUCTURE IN A MIM WAVEGUIDE AT OPTICAL CHANNELS**

Ebadi, Seyed Morteza, Science and Research Branch, Islamic Azad University, IRAN

(PLASMONICS-10-P-70)
**ANALYTICAL STUDY FOR HYBRID GUIDED MODES IN A 7-LAYER PLASMONIC WAVEGUIDE**

Aldawsari, Sarah, Waterloo University, Canada
IEEE Canada

The largest technical professional association in Canada with more than 18,000 members in 21 sections across the country

IEEE Canada Conferences

CCECE
The Canadian Conference on Electrical and Computer Engineering

EPEC
The Canadian Electrical Power and Energy Conference

IHTC
The International Humanitarian Technology Conference

IEEE Canada Publications

IEEE Canada Foundation

Advance the IEEE core purpose to foster technological innovation and excellence for the benefit of humanity

Provide scholarships and endowment funds to support student initiatives

Come and visit us at

ieee.ca

EXHIBITORS

100 Laserand Inc.
102 TBA
104 TBA
106 TBA
108 Optiwave Systems Inc.
199 B-Con Engineering Inc.
200-299 OZ Optics Limited
201 INO
202 Logitech LTD.
203 Nûvû Caméras
204 Quebec Photonic Network
205 Flir System Ltd.
206 Optech
207 Keysight Technologies
208 BMV Optical Technologies Inc.
301 Vision Components GmbH
305 Invest Ottawa
307 Teraxion
T1 Photon Design
T2 Fiber Optic Center, Inc.
T3 COPL
T8 Electro-Meters
T9 SPIE
T10 Photon Canada
T11 Aerotech Inc.
T12 JGR Optics Inc.
T13 Phytron, Inc.

ieee.ca
Aerotech manufactures motion control and positioning systems and components including direct-drive and piezo nanopositioners; planar and rotary air-bearing stages; high-speed gantries; mechanical-bearing linear, rotary, and lift stages; brushless linear and rotary servomotors and drives; stand-alone and software-based motion controllers; goniometers; galvanometers; and gimbal optical mounts. Custom, vacuum prepped, and clearance cut-ready positioning systems and components are available. Aerotech’s precision motion control products provide the critical performance for demanding applications in markets including photonics, medical device/life sciences, semiconductor and flat panel, automotive, data storage, laser processing, military/aerospace, electronic manufacturing and test, assembly, R&D, and others requiring high precision, high throughput motion solutions.

Established in 1988 as a contract optical system design and prototype fabrication service provider, B-Con continues to meet the critical needs of the high-tech sector for optical engineering and optical component fabrication. In 1997 B-Con set out to establish itself as a world leader in optical component and optical system manufacturing by providing turnkey optical engineering, prototyping and production services. B-Con is the ultimate partner for optical component fabrication and optical component outsourcing.

Today, B-Con holds numerous patents in the diamond turning and metrology fields. These patents demonstrate how B-Con is on the leading edge of optical engineering, taking optical component fabrication to another level.

BMV is a manufacturer of custom to medium volume precision optical components and systems. A complete service provider, our services include optical, thin film and mechanical design as well as a complete in house machine shop. Products include spherical and cylindrical lenses, lens systems, precision flats, laser windows, wedges, etalons, beam-splitters, sapphire optics, metal optics, complex machined optics, GRMs, etc. BMV provides design and application of UV, VIS and IR thin film coatings, such as anti-reflection, beam splitting, beam combining, dielectric and metal films. BMV is ISO 9001:2008 certified and registered with the Controlled Goods Program of Canada. No. 21199

The Center for Optics, Photonics and Lasers (COPL) is a strategic cluster of optics/photonics researchers from Université Laval, École Polytechnique de Montréal, McGill, INRS, École de technologie supérieure, Université de Sherbrooke and Université du Québec à Montréal who share the following objectives:

- To train graduate students and post-docs who will form the next generation of optics/photonics scientists
- To perform fundamental and applied research
- To contribute to socio-economic development by supporting industry.
Keysight Technologies (formerly Agilent’s Electronic Measurement Group) offers a wide-range of innovative test and measurement solutions to accelerate the progress of next-generation intelligent optical networks. Keysight’s mission in the optical market is to shorten time-to-market and reduce cost-of-test for customers in R&D and manufacturing, as well as enable new technologies which include innovative optical components, network elements & systems, and all-optical fiber networks.

Laserand Inc. is a Montreal based company working in the fields of photonics, robotics and industrial manufacturing & automation. Being a supplier of photonics components, scientific & industrial equipment for customers in Canada and the US we offer optical components & systems, DPSS lasers, laser diodes (stacks and fiber coupled), motion control solutions, nanopositioning piezo stages & controllers as well as THz cameras, detectors and IMPATT diodes.

Our team of engineers, marketing and technical support specialists with more than 15 years of experience in serving photonics customers is ready to assist you in choosing the right product for your application.

Logitech are recognised as world leaders in many aspects of materials processing, shaping and surface finishing technology. This position has been reached through many years expertise in materials processing and in the design and manufacturing of precision equipment Application areas where we can provide solutions and advance processing technologies include:

- Semiconductor materials processing
- Opto-electronics surface finishing
- Optical materials processing
- Geological science thin section preparation
- Test & measurement of materials
- Materials processing consumables

Nüvü Camēras offers EMCCD cameras with the highest SNR for extreme low light imaging. Based on reinvented electronics, Nüvü Camēras technology provides significant background signal reduction (below 0.001 ē/pixel/sec) and optimal image quality (no pixel leaking). Worldwide support is available to optimize the efficiency of imaging systems involving short exposure periods, low lighting, high acquisition speeds or a combination thereof. In addition, during the Photonics North 2013 event, a paper will be presented that will showcase the advantages of EMCCDs for future space applications.

Optech is an optical science applied-research centre specialized in technology transfer toward the private enterprise. We provide state of the art expertise, equipments and laboratories for industrial projects in various sectors including aerospace, biomedical, civil engineering, telecommunication and architecture. Our team can assist you in different steps of a project: from the feasibility study to the reliability tests as well as optical design, prototyping and characterization. Our main expertise domains cover illumination and imaging optics, optical sensors, optical-fiber based systems, optical metrology, laser micro-machining and opto-mechanical assembly.

Optiwave Systems is an R&D company specializing in development and commercialization of scientific and engineering software for numerical simulation of integrated and fiber optic devices and systems.

The company also renders contract services in scientific software development and design of photonic devices.


Photon Design was started in 1992 and supplies a wide range of innovative photonics CAD tools to most of the World’s leading photonics companies, universities and government research labs, with customers in 35 countries around the world. Our CAD products include tools for both passive and active (semiconductor) optical components and optical circuit modelling.

The company has a team of the brightest people in photonics modelling, developing original and innovative solutions for tomorrow’s photonics design projects, saving designers significant time and money.

#206 - Optech
1111, Lapierre Street, Montreal, QC, H8N 2Z4
Phone: 514-364-3325 - Fax: 514-364-7130
ctt-optech.ca

#108 - Optiwave
7 Capella Court, Ottawa ON K2E 7X1
Phone: 613-224-4700
optiwave.com

#200-299 - OZ Optics Limited
219 Westbrook Rd, Ottawa, ON K0A 1L0
Phone: 613-831-0981 - Fax: 613-836-5089
ozoptics.com

#T1 - Photon Design
34 Leopold Street, Oxford, UK, OX1 1TW
Phone: +44 1865 324950
photond.com

#202 - Logitech
Erskine Ferry Road, Old Kilpatrick, Glasgow G60 5EU
Phone: 0845 875 444
logitech.uk.com

#203 - Nüvü Camēras
5155 avenue Decelles, Montreal, QC, H3T 2B1
Phone: 514-733-8666 - Fax: 514-394-9452
nuvcameras.com

#100 - Laserand Inc.
302-2725 Rue Notre Dame, Montreal QC H3S 2H3
Phone: 514 452-4693
laserand.com

#207 - Keysight Technologies
6535 Millcreek Drive, Unit #41, Mississauga, ON
Phone: 1 877 894-4414 - Fax: 1 800 746-4866
www.keysight.com
SPIE is an international society advancing an interdisciplinary approach to the science and application of light. The SPIE Digital Library houses over 290,000 technical papers from the Society’s conference proceedings and journals in cutting-edge technologies such as biophotonics, nanotechnology, sensors, lasers, electro-optics, imaging, solar energy and communications. Founded in 1955, the Society has 97 Student Chapters around the world, and more than 17,000 individual, 3,600 student, and 437 corporate Members in 87 countries. Visit SPIE.org

The Quebec Photonic Network is a non-profit organization whose mission is to accelerate the economic development of the optics – photonics industry in Quebec. Its mandates are:
- To establish a network for the exchange of ideas, of information and expertises between members, and with other national and international networks;
- To increase the visibility and promotion of the optics-photonics sector;
- To support commercialization and access to markets information;
- To support the innovation and the competitiveness of the whole industries of Quebec by introducing optics-photonics technologies.

SPIE is an international society advancing an interdisciplinary approach to the science and application of light. The SPIE Digital Library houses over 290,000 technical papers from the Society’s conference proceedings and journals in cutting-edge technologies such as biophotonics, nanotechnology, sensors, lasers, electro-optics, imaging, solar energy and communications. Founded in 1955, the Society has 97 Student Chapters around the world, and more than 17,000 individual, 3,600 student, and 437 corporate Members in 87 countries. Visit SPIE.org.

TeraXion designs, manufactures and markets best-in-class photonic products to selected emerging markets including high-speed fiber-optic transmission networks, fiber lasers and optical sensing applications.

Over the years, TeraXion’s abilities to transform complex optical technologies into manufacturable products have been applied to Silicon Photonics (SiP) and Indium Phosphide (InP) for next-generation 100 Gb/s and above modulators and receivers.

For more information, please visit www.teraxion.com

Logitech understand the need for accurate processing in Optic and Photonic applications...

Our adaptable high precision cutting, lapping and polishing systems are extremely effective on the most fragile of materials used in optics and photonic processes. Applications our equipment are currently in use:

- Fibre Optics
- Opto-electronics
- Laser materials
- Fabry Perot Etalons
- Micro Lenses & Micro Optics

Our highly automated lapping and polishing system, the Akribis-Air...

- Automated wafer thickness control
- Used with Si, III-V, II-VI, Sapphire, SiC, GaN and more
- Faster removal rates due to load and plate speed
- Improved TTV
- Reduced surface roughness, increased flatness
- Automated abrasive feed and autowash features

www.logitech.uk.com
enquiries@logitech.uk.com
Be there until the end to win an IPAD MINI:

There will be very good sessions presented on Thursday. So plan on being there until the end. You might be the winner of an iPad Mini to be awarded at the closing ceremony during the afternoon break.

You can also win a 100$ APPLE Gift card:

Follow us on twitter, facebook or LinkedIn to get the chance to win the gift card.

The prizes will be drawn amongst all researchers and students registered for the 3 days of the meeting.

You must be in the attendance to win! Good Luck!
Thank you to our partners!

Photonics North
Join us in Québec City
May 24-26, 2016
Québec City Convention Centre

www.photonicsnorth.com

Follow us on social media
@Photonicsnorth