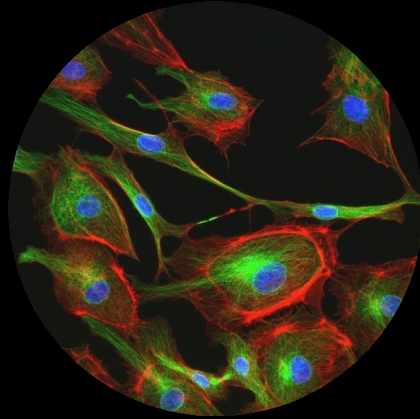


## FEATURED WORKSHOPS

**MAY 13, 2019**  
NANO-FABRICATION  
*TNFC Staff*

**MAY 14, 2019**  
FREE SPACE OPTICS  
*Professor E. Istrate (Victoria College)*

**MAY 15, 2019**  
BIO-PHOTONICS  
*Professor O. Levi (IBBME)*



### NANO-FABRICATION Workshop (TNFC Staff)

[Registration in GB304 @ 9:15; Lunch in GB304 @ 12; Lab in PT473 @ 1]

This workshop will cover an overview of micro / nano fabrication technology with a focus on its applications in making planar photonic devices on wafer. We will review typical steps such as microlithography, thermal oxidation, CVD, PVD, wet etching and RIE. After the lecture, we will perform hands-on procedures in the TNFC cleanroom facility.

### FREE SPACE OPTICS Workshop (Professor E. Istrate)

[GRP1 in MP335 @ 9 & GRP2 in GB304 @ 10:30; Lunch in GB304 @ 12:30; Rotate @ 1:30]

This workshop will cover typical operations in a laser lab. We will learn how to build a telescope and a spatial filter. As well, we will look at typical stability requirements on an optical table and will build a Michelson interferometer to visualize any disturbances. To close, we will record and develop a hologram. In between, we will learn to maintain optical elements.

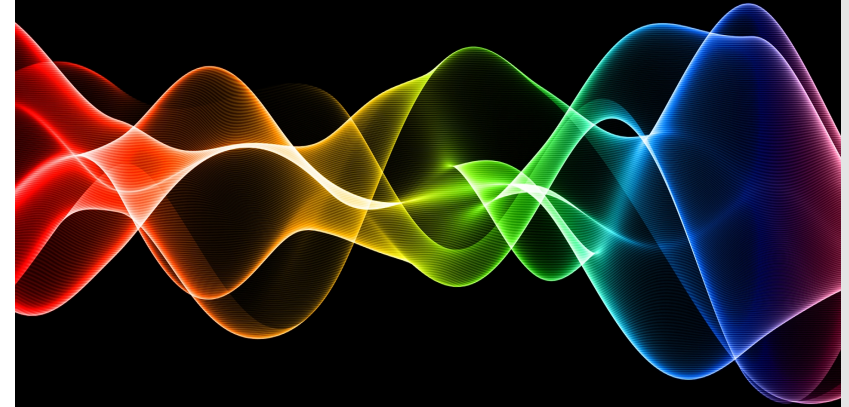
### BIO-PHOTONICS Workshop (Professor O. Levi)

[Registration in GB304 @ 9:15; Lunch in GB304 @ 12:30; Lab in MB325 @ 1:30]

This workshop will cover a brief theory of quantitative fluorescent microscopy and its various applications. Fluorescence microscopy is integral to many areas of biological research including biomedical engineering, cell biology, and molecular biology. We will gain hands-on experience working with living samples in the IBBME lab.

Please send a blank email to '[Photonics-L-subscribe-request@LISTSERV.UTORONTO.CA](mailto:Photonics-L-subscribe-request@LISTSERV.UTORONTO.CA)' to subscribe to our listserv.

Photonics Innovation Centre Presents:



# OptoFest

May 13 – May 17, 2019

Galbraith Building, Room 304 / 303  
35 St. George Street, University of Toronto

[uoft.me/OptoFest](http://uoft.me/OptoFest)

# May 16, 2019

## Opening Remarks

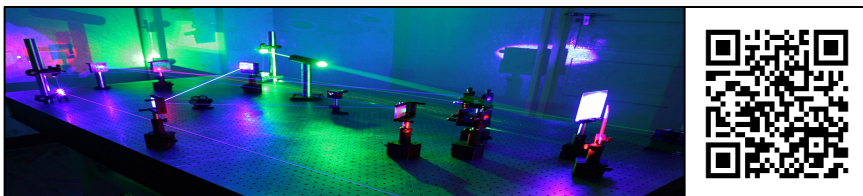
[09:30 – 10:00] 304  
Professor Christopher Yip  
(Incoming) Dean, Faculty of Engineering

## Talk Schedule

|               |     |   |
|---------------|-----|---|
| 10:00 – 10:30 | 304 | "Science to Society: The Global Lighting Project"<br><i>Dr. M. Cynthia Goh, Academic Director (U of T Entrepreneurship)</i>   |
| 10:30 – 11:00 | 304 | "How to Transform a Thesis Into a Socially Viable Business"<br><i>Professor Stewart Aitchison (ECE &amp; ChipCare)</i>  |
| 11:00 – 12:00 | 304 | "The Max Planck Society and the Max Planck Institute of Microstructure Physics"<br><i>Professor Joyce Poon (U of T &amp; Max Planck Institute)</i><br><i>Dr. Dirk Sander (Max Planck Institute)</i> |
| 12:00 – 12:30 | 304 | "Mitacs Research Funds for Collaborative Innovation"<br><i>Daniel Giovannini, PhD (Mitacs)</i>  |
| 12:30 – 01:30 | 303 | LUNCH   |
| 01:30 – 02:00 | 304 | POSTER SESSION  |
| 02:00 – 02:30 | 303 | "Fun with Structured Light"<br><i>Professor Mo Mojahedi (ECE)</i>   |
| 02:30 – 03:00 | 303 | "Optoelectronic Tweezers – A Useful Toolbox"<br><i>Dr. Shuailong Zhang (Wheeler Microfluidics Laboratory &amp; IBBME)</i>   |
| 03:00 – 03:30 | 303 | "Imaging Fluids in Sub-10nm Channels"<br><i>Junjie Zhong, PhD (Sinton Lab - Fluidics &amp; Energy)</i>  |
| 03:30 – 04:00 | 304 | BREAK (POSTERS)   |

## Seminar

[04:00 – 05:00] 303  
"Coherent Ising Machine: a Photonic Computer Using a Network of Degenerate Optical Parametric Oscillators"  
Dr. Hiroki Takesue  
Senior Distinguished Scientist, NTT Basic Research Laboratories



# May 17, 2019

## Talk Schedule

|               |     |  |
|---------------|-----|--|
| 09:30 – 10:00 | 304 | "Mitacs: Partnering for Innovation"<br><i>Daniel Giovannini, PhD (Mitacs)</i>  |
| 10:00 – 10:30 | 304 | "Solution-Processed Photovoltaics"<br><i>Dr. Armin Fischer (QDSolar)</i>   |
| 10:30 – 11:00 | 304 | "Recent Progress on Silicon Photonics for Switching Applications"<br><i>Dritan Celo, PhD (Huawei Canada Research Centre)</i>                                   |
| 11:00 – 11:30 | 304 | "Optogenetic Dissection of Fear Memory Circuits in the Amygdala"<br><i>Asim Rashid, PhD (Sick Kids, The Hospital for Sick Children)</i>                        |
| 11:30 – 12:00 | 304 | "Interrogation of Brain Circuits using Optogenetics and Whole-Brain Mapping"<br><i>Cesar Coelho, PhD (Sick Kids, The Hospital for Sick Children)</i>           |
| 12:00 – 01:15 | 303 | WORKSHOP - "Inverse Design Workshop with Lumerical"<br><i>Dr. Roberto Armenta (Lumerical Inc.)</i>   |
| 12:30 – 01:30 | 304 | LUNCH  |
| 01:30 – 02:00 | 303 | "Photonic Technologies Enabling 800G and Beyond"<br><i>Alex MacKay (Ciena)</i>   |
| 02:00 – 02:30 | 303 | "Building an Integrated Photonic Quantum Computer"<br><i>Luke Helt, PhD (Xanadu)</i>   |
| 02:30 – 03:00 | 303 | "Launch your Tech Startup Company"<br><i>Reem Abughazaleh (UofT Entrepreneurship Hatchery)</i>   |
| 03:00 – 03:30 | 304 | BREAK (POSTERS)  |
| 03:30 – 04:00 | 303 | "Fiber Optic Sensors: Fiber Bragg Gratings for Industrial Applications"<br><i>Michael Bakaic, MES (FIBOS)</i>  |
| 04:00 – 04:30 | 303 | "Functional Imaging of the Central Nervous System in the Level of Neuronal Circuits"<br><i>Yasaman Soudagar, PhD (Neurescence Inc.)</i>                        |
| 04:30 – 05:00 | 303 | "The Creative Destruction Lab and the Market for Judgment for Deep Tech Startups"<br><i>Khalid Kurji, MBA (Creative Destruction Lab – Quantum Stream Lead)</i> |

## Closing Remarks & Research Expansion Grant Award

[05:00 – 05:30] 303  
Professor Li Qian  
Electrical and Computer Engineering;  
Director, Photonics Innovation Centre

photonics@utoronto.ca  
www.photonics.utoronto.ca

