

## Silicon Photonics: from Fundamental Research to Manufacturing

Monday - Thursday 23 - 26 April 2018

### Conference Sessions At A Glance

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Hot Topics I  
**1:** Optical Transceivers and Manufacturing  
**2:** Emerging Concepts and Technologies I  
**3:** Emerging Concepts and Technologies II  
 Posters-Monday  
**4:** Lasers and Amplifiers  
 Hot Topics II  
**5:** III-V on Si Photonic Devices and Circuits  
**6:** Mid-IR Photonics  
**7:** Mode Diversity and Light Coupling  
**8:** Wavelength Diversity Devices and Systems  
 Hot Topics III  
**9:** Quantum Photonics  
**10:** Reconfigurable and Tunable Photonic Devices

### Important Dates

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Abstract Due:  
25 October 2017

Author Notification:  
26 January 2018

Manuscript Due Date:  
26 March 2018

### Conference Committee

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#### Conference Chairs

[Roel G. Baets](#), Univ. Gent (Belgium)  
 Peter O'Brien, Tyndall National Institute (Ireland)  
[Laurent Vivien](#), Ctr. de Nanosciences et de Nanotechnologies (France)

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[Zhiping Zhou](#), Peking Univ. (China)

#### MONDAY 23 APRIL

[Show All Abstracts](#)

### Hot Topics I

Monday 23 April 2018  
 9:00 AM - 11:00 AM  
 Location: Schweitzer Auditorium

#### Photonics Europe 2018: Hot Topics Session I

**From Einstein doubts to quantum bits: a second quantum revolution**  
**Alain Aspect**, Lab. Charles Fabry, Institut d'Optique, France

**Pico-Photonics: watching and sensing single molecules by confining light to the atom scale**  
**Jeremy J. Baumberg**, NanoPhotonics Ctr., Univ. of Cambridge, United Kingdom

For additional details please visit <http://spie.org/x12297.xml>.

#### Coffee Break 11:00 AM - 11:25 AM

### Opening Remarks

Monday 23 April 2018  
 11:25 AM - 11:30 AM  
 Location: Salon 1

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## Session 1: Optical Transceivers and Manufacturing

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Monday 23 April 2018  
11:30 AM - 1:00 PM  
Location: Salon 1

Session Chair: [Roel G. Baets](#), Photonics Research Group (Belgium)

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### Advanced optical transceivers based on III-V-on-silicon PICs (Conference Presentation) (Invited Paper)

Paper 10686-1  
Time: 11:30 AM - 12:00 PM  
Author(s): Günther Roelkens, Univ. Gent (Belgium)

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### Path for the silicon photonic transceiver to sit on the host-ASIC-substrate: III-V and 3D integration (Invited Paper)

Paper 10686-2  
Time: 12:00 PM - 12:30 PM  
Author(s): Sylvie Menezo, CEA-LETI (France)

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### Silicon photonics in 300mm: recent results and new applications (Invited Paper)

Paper 10686-3  
Time: 12:30 PM - 1:00 PM  
Author(s): Antonio Fincato, Marco Piazza, P. Orlandi, STMicroelectronics (Italy); Angelica Simbula, Univ. degli Studi di Pavia (Italy); Enrico Temporiti, STMicroelectronics SRL (Italy); Frédéric Boeuf, Charles Baudot, Sébastien Crémer, STMicroelectronics S.A. (France)

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## Lunch Break 1:00 PM - 2:10 PM

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## Session 2: Emerging Concepts and Technologies I

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Monday 23 April 2018  
2:10 PM - 3:30 PM  
Location: Salon 1

Session Chair: Peter O'Brien, Tyndall National Institute (Ireland)

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### Single atom electronics and photonics (Conference Presentation) (Invited Paper)

Paper 10686-4  
Time: 2:10 PM - 2:40 PM  
Author(s): Juerg Leuthold, Alexandros Emoras, Bojun Cheng, Mathieu Luisier, Samuel Andermatt, Fabian Ducry, ETH Zurich (Switzerland); Thomas Schimmel, Karlsruhe Institut für Technologie (Germany)

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### Reconfigurable photonics enabled by optical phase change materials (Conference Presentation) (Invited Paper)

Paper 10686-5  
Time: 2:40 PM - 3:10 PM  
Author(s): Yifei Zhang, Massachusetts Institute of Technology (United States); Jeffrey B. Chou, MIT Lincoln Lab. (United States); Qihang Zhang, Junying Li, Massachusetts Institute of Technology (United States); Huashan Li, Sun Yat-Sen Univ. (China); Qingyang Du, Massachusetts Institute of Technology (United States); Anupama Yadav, Myungkoo Kang, Cesar Blanco, Univ. of Central Florida (United States); Huikai Zhong, Mikhail Y. Shalaginov, Jeffrey C. Grossman, Massachusetts Institute of Technology (United States); Richard Soref, Univ. of Massachusetts Boston (United States); Vladimir Liberman, MIT Lincoln Lab. (United States); Kathleen Richardson, Univ. of Central Florida (United States); Juejun Hu, Tian Gu, Massachusetts Institute of Technology (United States)

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### High-speed characteristics of strain-induced pockels effect in silicon (Conference Presentation)

Paper 10686-6  
Time: 3:10 PM - 3:30 PM  
Author(s): Mathias Berciano, Guillaume Marcaud, Xavier Le Roux, Paul Crozat, Carlos Alonso-Ramos, Daniel Benedikovic, Delphine Marris-Morini, Eric Cassan, Ctr. de Nanosciences et de Nanotechnologies (France); Pedro Damas, Ctr. de Nanosciences et de Nanotechnologies (France), Caliopa (Belgium); Laurent Vivien, Ctr. de Nanosciences et de Nanotechnologies (France)

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## Coffee Break 3:30 PM - 4:00 PM

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## Session 3: Emerging Concepts and Technologies II

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Monday 23 April 2018

4:00 PM - 5:10 PM

Location: Salon 1


Session Chair: Peter O'Brien, Tyndall National Institute (Ireland)

**Photonic wirebonding and 3D nanoprinting in optical packaging: from research to manufacturing (Invited Paper)**

Paper 10686-7

Time: 4:00 PM - 4:30 PM


Author(s): Christian Koos, Wolfgang Freude, Sebastian Randel, Muhammad R. Billah, Matthias Blaicher, Philipp-Immanuel Dietrich, Tobias Hoose, Andreas Hofmann, Karlsruher Institut für Technologie (Germany)

[Add To My Schedule](#) **Coherent absorption with plasmonics nanoantennas on SOI racetrack resonator**

Paper 10686-8

Time: 4:30 PM - 4:50 PM


Author(s): Bigeng Chen, Roman Bruck, Univ. of Southampton (United Kingdom); Nicholas J. Dinsdale, Optoelectronics Research Ctr., Univ. of Southampton (United Kingdom); David J. Thomson, Goran Z. Mashanovich, Graham T. Reed, Otto L. Muskens, Univ. of Southampton (United Kingdom)

[Add To My Schedule](#) **Demonstration of photonic digital-to-analog conversion (DAC) utilizing a single silicon Mach-Zehnder modulator (Conference Presentation)**

Paper 10686-9

Time: 4:50 PM - 5:10 PM

Author(s): Guangwei Cong, National Institute of Advanced Industrial Science and Technology (Japan); Shota Kita, Kengo Nozaki, NTT Nanophotonics Ctr. (Japan), NTT Basic Research Labs. (Japan); Takashi Inoue, National Institute of Advanced Industrial Science and Technology (Japan); Akihiko Shinya, NTT Nanophotonics Ctr. (Japan), NTT Basic Research Labs. (Japan); Makoto Okano, Yuriko Maegami, Noritsugu Yamamoto, Morifumi Ohno, National Institute of Advanced Industrial Science and Technology (Japan); Masaya Notomi, NTT Nanophotonics Ctr. (Japan), NTT Basic Research Labs. (Japan); Koji Yamada, National Institute of Advanced Industrial Science and Technology (Japan)

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## Session PSMon: Posters-Monday

Monday 23 April 2018

5:30 PM - 7:00 PM

Location: Hall Rhin


Conference attendees are invited to attend the Photonics Europe poster session on Monday 17.30 to 19.00. Posters will be on display after 10.00 Monday morning in the Hall Rhin. Come view the posters, enjoy light refreshments, ask questions, and network with colleagues in your field. Authors of poster papers will be present to answer questions concerning their papers. Attendees are required to wear their conference registration badges to the poster sessions. Poster authors, view poster presentation guidelines and set-up instructions at <http://spie.org/x34963.xml>.

**Sub-nanometer narrow bandwidth gratings using deeply etched SOI rib waveguides**

Paper 10686-34

Time: 5:30 PM - 7:00 PM


Author(s): Shafeek Abdul Samad, Badarinarayana Tarimala, Gopal Hegde, Srinivas Talabattula, Indian Institute of Science (India)

[Add To My Schedule](#) **Novel ultra low power optical memory using liquid crystal**

Paper 10686-43

Time: 5:30 PM - 7:00 PM


Author(s): Mahmoud A. Elrabiaey, Zewail City of Science and Technology (Egypt), Alexandria Univ. (Egypt); Hossam M. H. Shalaby, El-Sayed A. Youssef, Alexandria Univ. (Egypt); Salah S. A. Obayya, Zewail City of Science and Technology (Egypt)

[Add To My Schedule](#) **Plasmonic dipole nanoantennas on a SiO<sub>2</sub>/Si substrate and their characterization undefined**

Paper 10686-44

Time: 5:30 PM - 7:00 PM


Author(s): Toni Haugwitz, TU Dresden (Germany); Jens-Wolfram Erben, Fraunhofer-Institut für Elektronische Nanosysteme (Germany); Niels Neumann, TU Dresden (Germany); Danny Reuter, Fraunhofer-Institut für Elektronische Nanosysteme (Germany); Dirk Plettemeier, TU Dresden (Germany)

[Add To My Schedule](#) **Silicon-on-insulator-based slab to slot waveguide mode coupler**

Paper 10686-45

Time: 5:30 PM - 7:00 PM

Author(s): Bhaswati Singha Deo, Nishit Malviya, Vishnu Priye, Indian Institute of Technology (Indian School of Mines), Dhanbad (India)

[Add To My Schedule](#) **Optimizing band-edge slow light in silicon-on-insulator grating waveguides**

Paper 10686-46

Time: 5:30 PM - 7:00 PM

Author(s): Marco Passoni, Dario Gerace, Lucio Claudio Andreani, University of Pavia (Italy); Liam O'Faolain, Center for Advanced Photonics and Process Analysis (Ireland)

[Add To My Schedule](#) 

**Visible light emitting waveguide on Si chip**

Paper 10686-47

Time: 5:30 PM - 7:00 PM

Author(s): Iago Rodríguez Díez, Isaac J. Luxmoore, Geoffrey Nash, Anna Baldycheva, Univ of Exeter (United Kingdom)

[Add To My Schedule](#) **TUESDAY 24 APRIL**[Show All Abstracts](#)**Session 4:  
Lasers and Amplifiers**

Tuesday 24 April 2018

1:30 PM - 4:00 PM


Location: Salon 2

Session Chair: [Roel G. Baets](#), Photonics Research Group (Belgium)**Advances on GeSn alloys lasers on Si (Invited Paper)**

Paper 10686-10

Time: 1:30 PM - 2:00 PM


Author(s): Vincent Reboud, Mathieu Bertrand, CEA-LETI (France); Quang Minh Thai, CEA-INAC (France); Jérémie Chrétien, CEA-LETI (France); Nicolas Pauc, CEA-INAC (France); Rami Khazaka, Andrea Quintero, Philippe Rodriguez, CEA-LETI (France); Francesco Taro Armand, Hans Sigg, Paul Scherrer Institut (Switzerland); Alexei Chelnokov, Jean-Michel Hartmann, CEA-LETI (France); Vincent Calvo, CEA-INAC (France)

[Add To My Schedule](#) **SiGeSn material for integrated optical devices (Invited Paper)**

Paper 10686-11

Time: 2:00 PM - 2:30 PM


Author(s): Michael Oehme, D. Schwarz, Caterina J. Clausen, Inga A. Fischer, Jörg Schulze, Univ. Stuttgart (Germany)

[Add To My Schedule](#) **Excitation wavelength dependency of photoluminescence spectra of highly strained direct bandgap Germanium microbridge cavities**

Paper 10686-12

Time: 2:30 PM - 2:50 PM


Author(s): Francesco Taro Armand Pilon, Thomas Zabel, Paul Scherrer Institut (Switzerland); Christopher Bonzon, ETH Zurich (Switzerland); Alban Gassenq, Nicolas Pauc, CEA-INAC (France), Univ. Grenoble Alpes (France); Julie Widiez, Vincent Reboud, CEA-LETI (France), Univ. Grenoble Alpes (France); Vincent Calvo, CEA-INAC (France), Univ. Grenoble Alpes (France); Jean-Michel Hartmann, Alexei Chelnokov, CEA-LETI (France), Univ. Grenoble Alpes (France); Jérôme Faist, ETH Zurich (Switzerland); Hans Sigg, Paul Scherrer Institut (Switzerland)

[Add To My Schedule](#) **Tensile-strained germanium microdisks on metallic pedestals**

Paper 10686-13

Time: 2:50 PM - 3:10 PM


Author(s): Anas Elbaz, Ctr. de Nanosciences et de Nanotechnologies (France), STMicroelectronics S.A. (France); Moustafa El Kurdi, Abdelhanin Aassime, Ctr. de Nanosciences et de Nanotechnologies (France); Sébastien Sauvage, Ctr. de Nanosciences et de Nanotechnologies (France); Xavier Checoury, Ctr. de Nanosciences et de Nanotechnologies (France); Isabelle Sagnes, Ctr. de Nanosciences et de Nanotechnologies (France); Cédric Villebasse, Ctr. de Nanosciences et de Nanotechnologies (France); Etienne Herth, Ctr. de Nanosciences et de Nanotechnologies (France); Charles Baudot, Frédéric Boeuf, STMicroelectronics S.A. (France); Philippe Boucaud, Ctr. de Nanosciences et de Nanotechnologies (France)

[Add To My Schedule](#) **Integrated rare-Earth doped mode-locked lasers on a CMOS platform (Invited Paper)**

Paper 10686-14

Time: 3:10 PM - 3:40 PM


Author(s): Franz X. Kärtner, Deutsches Elektronen-Synchrotron (Germany); Patrick Callahan, Katia Shtyrkova, Massachusetts Institute of Technology (United States); Nanxi Li, Massachusetts Institute of Technology (United States), Harvard University (United States); Neetesh Singh, Ming Xin, Koustuban Rav, Jelena Notaros, Sahli Magden, Dietrik Vermeulen, Erich P. Ippen, Michael Watts, Massachusetts Institute of Technology (United States)

[Add To My Schedule](#) **On-chip optical amplification at C-band in silicon nitride slot waveguides**

Paper 10686-15

Time: 3:40 PM - 4:00 PM

Author(s): John Rönn, Aalto Univ. (Finland); Weiwei Zhang, Univ. Paris-Sud 11 (France); Anton Autere, Aalto Univ. (Finland); Xavier Le Roux, Elena Durán-Valdeiglesias, Univ. Paris-Sud 11 (France); Lasse Pakarinen, Aalto Univ. (Finland); Charles Baudot, Sylvain Guerber, Frédéric Boeuf, STMicroelectronics S.A. (France); Carlos Alonso-Ramos, Univ. Paris-Sud 11 (France); Antti Säynätjoki, Aalto Univ. (Finland), Univ. of Eastern Finland (Finland); Laurent Vivien, Eric Cassan, Univ. Paris-Sud 11 (France); Zhipei Sun, Aalto Univ. (Finland)

[Add To My Schedule](#) **Coffee Break 4:00 PM - 4:30 PM****Hot Topics II**

Tuesday 24 April 2018

4:30 PM - 6:05 PM

Location: Schweitzer Auditorium

### Photonics Europe 2018: Hot Topics Session II

#### Coherent combination of fiber amplified ultrafast laser pulses

Jens Limpert, Institute of Applied Physics, Friedrich Schiller Univ. Jena, Germany

#### 2D materials and their heterostructures: fundamentals, applications and prototypes

Frank Koppens, ICFO-The Institute of Photonic Sciences, Spain

For additional details, please visit <http://spie.org/x12297.xml>

WEDNESDAY 25 APRIL

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## Session 5: III-V on Si Photonic Devices and Circuits

Wednesday 25 April 2018

8:30 AM - 10:40 AM

Location: Salon 2


Session Chair: [Laurent Vivien](#), Ctr. de Nanosciences et de Nanotechnologies (France)

#### Hybrid indium phosphide-on-silicon nanolaser diode *(Invited Paper)*

Paper 10686-16

Time: 8:30 AM - 9:00 AM

Author(s): Fabrice Raineri, Lab. de Photonique et de Nanostructures (France)


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#### Monolithic integration of lasers on silicon *(Invited Paper)*

Paper 10686-17

Time: 9:00 AM - 9:30 AM

Author(s): Huiyun Liu, Univ. College London (United Kingdom)


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#### Repeaterless data transmission at 1310 nm using silicon photonic integrated circuit

Paper 10686-18

Time: 9:30 AM - 9:50 AM

Author(s): Robert Sheehan, Tyndall National Institute (Ireland); Antonin Gallet, Ines Ghorbel, III-V Lab. (France); Cormac Eason, Lee Carroll, Peter O'Brien, Tyndall National Institute (Ireland); Alexandre Shen, Guang-Hua Duan, III-V Lab. (France); Fatima Gunning, Tyndall National Institute (Ireland)


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#### Ultrahigh efficiency III-V on Si MOS capacitor optical modulator *(Invited Paper)*

Paper 10686-19

Time: 9:50 AM - 10:20 AM

Author(s): Tatsuuro Hiraki, Takuma Aihara, Koichi Hasebe, Takuro Fujii, Koji Takeda, Tai Tsuchizawa, Takaaki Kakitsuka, Hiroshi Fukuda, Shinji Matsuo, NTT Device Technology Labs. (Japan)


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#### Toward a hybrid integration of a 4-wavelength InGaAsP laser array on the slotted silicon waveguide

Paper 10686-20

Time: 10:20 AM - 10:40 AM

Author(s): Xing Dai, Tyndall National Institute (Ireland); Hongyan Yu, Pengfei Wang, Institute of Semiconductors (China); Weixi Chen, Peking University (China); Jiao-Qing Pan, Institute of Semiconductors, Chinese Academy of Sciences (China)

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Coffee Break 10:40 AM - 11:05 AM

## Session 6: Mid-IR Photonics

Wednesday 25 April 2018

11:05 AM - 12:25 PM

Location: Salon 2


Session Chair: Gunther Roelkens, Univ. Gent (Belgium)

#### Ge/SiGe photonic devices for the long mid-infrared

Paper 10686-21

Time: 11:05 AM - 11:25 AM

Author(s): Jean-Marc Fédéli, Pierre Labeye, Adrien Marchant, Olivier Lartigue, Maryse Fournier, Jean-Michel Hartmann, CEA-LETI (France)


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**Mid-IR supercontinuum in SiGe waveguide (Conference Presentation)**

Paper 10686-22

Time: 11:25 AM - 11:45 AM


Author(s): Milan Sinobad, Institut des Nanotechnologies de Lyon (France); Christelle Monat, Institut des Nanotechnologies de Lyon (France); Pan Ma, Barry Luther-Davies, Stephen Madden, The Australian National Univ. (Australia); David J. Moss, Swinburne Univ. of Technology (Australia); Aman Mitchell, RMIT Univ. (Australia); Alberto Della Torre, Régis Orobitchouk, Institut des Nanotechnologies de Lyon (France); Salim Boutami, Jean-Michel Hartmann, Jean-Marc Fédéli, CEA-LETI (France); Christian Grillet, Institut des Nanotechnologies de Lyon (France)

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**7.5- $\mu$ m wavelength fiber-chip grating couplers for Ge-rich SiGe photonics integrated circuits**

Paper 10686-23

Time: 11:45 AM - 12:05 PM


Author(s): Qiankun Liu, Joan Manel Ramirez, Vladyslav Vakarin, Daniel Benedikovic, Carlos Alonso-Ramos, Ctr. de Nanosciences et de Nanotechnologies (France); Jacopo Frigerio, Andrea Ballabio, Giovanni Isella, Politecnico di Milano (Italy); Laurent Vivien, Delphine Marris-Morini, Ctr. de Nanosciences et de Nanotechnologies (France)

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**Ge-rich SiGe waveguides for supercontinuum generation in the mid-IR**

Paper 10686-24

Time: 12:05 PM - 12:25 PM

Author(s): Joan Manel Ramirez, Samuel Serna, Vladyslav Vakarin, Qiankun Liu, Ctr. de Nanosciences et de Nanotechnologies (France); Jacopo Frigerio, Andrea Ballabio, Politecnico di Milano (Italy); Xavier Le Roux, Laurent Vivien, Eric Cassan, Ctr. de Nanosciences et de Nanotechnologies (France); Giovanni Isella, Politecnico di Milano (Italy); Nicolas Dubreuil, Institut d'Optique Graduate School (France); Delphine Marris-Morini, Ctr. de Nanosciences et de Nanotechnologies (France)

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**Lunch/Exhibition Break 12:25 PM - 1:30 PM**

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**Session 7:  
Mode Diversity and Light Coupling**

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Wednesday 25 April 2018

1:30 PM - 3:10 PM

Location: Salon 2


Session Chair: Peter O'Brien, Tyndall National Institute (Ireland)

**Mode selecting switch using multimode interference for on-chip optical interconnects (Invited Paper)**

Paper 10686-25

Time: 1:30 PM - 2:00 PM

Author(s): Rubana Priti, Odile Liboiron-Ladouceur, McGill Univ. (Canada)

[Add To My Schedule](#) 
**Mode converters based on periodically perturbed waveguides for mode division multiplexing**

Paper 10686-26

Time: 2:00 PM - 2:20 PM


Author(s): Diego Pérez-Galacho, Carlos Alonso-Ramos, Delphine Marris-Morini, Vladyslav Vakarin, Xavier Le Roux, Laurent Vivien, Ctr. de Nanosciences et de Nanotechnologies (France)

[Add To My Schedule](#) 
**Vertically bent silicon waveguide for high-efficiency optical fiber coupling (Invited Paper)**

Paper 10686-27

Time: 2:20 PM - 2:50 PM


Author(s): Youichi Sakakibara, Yuki Atsumi, Emiko Omoda, Tomoya Yoshida, National Institute of Advanced Industrial Science and Technology (Japan)

[Add To My Schedule](#) 
**Low-loss grating-coupled optical interfaces for large-volume fabrication with deep-ultraviolet optical lithography**

Paper 10686-28

Time: 2:50 PM - 3:10 PM

Author(s): Daniel Benedikovic, Ctr. de Nanosciences et de Nanotechnologies (France); Carlos Alonso-Ramos, Univ. Paris-Sud 11 (France); Sylvain Guerber, STMicroelectronics S.A. (France); Diego Pérez-Galacho, Vladyslav Vakarin, Guillaume Marcaud, Xavier Le Roux, Eric Cassan, Delphine Marris-Morini, Univ. Paris-Sud 11 (France); Pavel Cheben, National Research Council Canada (Canada); Frédéric Boeuf, Charles Baudot, STMicroelectronics S.A. (France); Laurent Vivien, Univ. Paris-Sud 11 (France)

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**Coffee Break 3:10 PM - 3:40 PM**

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**Session 8:  
Wavelength Diversity Devices and Systems**

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Wednesday 25 April 2018

3:40 PM - 5:30 PM

Location: Salon 2

Session Chair: [Andrea I. Melloni](#), Politecnico di Milano (Italy)


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**Silicon nitride photonic circuits for phase array antennas** (*Invited Paper*)

Paper 10686-29

Time: 3:40 PM - 4:10 PM

Author(s): Chris G. H. Roeloffzen, Univ. Twente (Netherlands)


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**Low crosstalk silicon arrayed waveguide gratings for on-chip optical multiplexing**

Paper 10686-30

Time: 4:10 PM - 4:30 PM

Author(s): Claudio Castellani, Stefano Tondini, Mattia Mancinelli, Univ. degli Studi di Trento (Italy); Christophe Kopp, CEA-LETI (France); Lorenzo Pavesi, Univ. degli Studi di Trento (Italy)


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**Integrated SiN on SOI dual photonic devices for advanced datacom solutions**

Paper 10686-31

Time: 4:30 PM - 4:50 PM

Author(s): Sylvain Guerber, STMicroelectronics S.A. (France); Carlos Alonso-Ramos, Daniel Benedikovic, Diego Pérez-Galacho, Xavier Le Roux, Ctr. de Nanosciences et de Nanotechnologies (France); Nathalie Vulliet, Sébastien Crémer, Laurène Babaud, Jonathan Planhot, Daniel Benoit, Paul Chantaine, Francois Leverd, Delia Ristoiu, STMicroelectronics S.A. (France); Philippe Grosse, MINATEC (France); Delphine Marris-Morini, Laurent Vivien, Ctr. de Nanosciences et de Nanotechnologies (France); Charles Baudot, Frédéric Boeuf, STMicroelectronics S.A. (France)


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**Enhanced hybrid Si-SiN photonic platform and performances of passive components for CWDM applications (Conference Presentation)**

Paper 10686-32

Time: 4:50 PM - 5:10 PM

Author(s): Quentin Wilmart, Daivid Fowler, Corrado Sciancalepore, Karim Hassan, Laetitia Adelmini, Stéphanie Garcia, Daniel Robin-Brosse, Stéphane Malhouitre, Ségolène Olivier, CEA-LETI (France)


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**Silicon photonic micro-ring resonator dedicated to an optoelectronic oscillator loop**

Paper 10686-33

Time: 5:10 PM - 5:30 PM

Author(s): Do Thi Phuong, Ecole normale supérieure Paris-Saclay (France); Carlos Alonso-Ramos, Xavier Le Roux, Diego Pérez-Galacho, Laurent Vivien, Ctr. de Nanosciences et de Nanotechnologies (France); Isabelle Ledoux-Rak, Bernard Jourmet, Ecole normale supérieure Paris-Saclay (France); Eric Cassan, Ctr. de Nanosciences et de Nanotechnologies (France)

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**THURSDAY 26 APRIL**

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## Hot Topics III

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Thursday 26 April 2018

9:00 AM - 10:35 AM

Location: Schweitzer Auditorium

**Photonics Europe 2018: Hot Topics Session III**

**From extreme nonlinear optics to ultrafast atomic physics**

**Anne L'Huillier**, Lund Univ., Sweden

**Quantum computations and quantum simulations with trapped ions**

**Rainer Blatt**, Institute for Experimental Physics, Univ. of Innsbruck, Austria

For additional details, please visit <http://spie.org/x12297.xml>

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**Coffee Break 10:35 AM - 11:00 AM**

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## Session 9: Quantum Photonics

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Thursday 26 April 2018

11:00 AM - 12:20 PM

Location: Salon 2

Session Chair: [Laurent Vivien](#), Ctr. de Nanosciences et de Nanotechnologies (France)


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**Hybrid quantum photonics at the single photon level** (*Invited Paper*)

Paper 10686-36

Time: 11:30 AM - 12:00 PM


Author(s): Valery Zwiller, KTH Royal Institute of Technology (Sweden)

[Add To My Schedule](#) **High-performance sub-wavelength engineered silicon Bragg-rejection filters (Conference Presentation)**

Paper 10686-37

Time: 12:00 PM - 12:20 PM

Author(s): Dorian Oser, Diego Pérez-Galacho, Carlos Ramos, Xavier Le Roux, Laurent Vivien, Ctr. de Nanosciences et de Nanotechnologies (France); Florent Mazeas, Sébastien Tanzilli, Lab. de Physique de la Matière Condensée (France); Laurent Labonté, Lab. de Physique de la Matière Condensée (France); Eric Cassan, Ctr. de Nanosciences et de Nanotechnologies (France)

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**Lunch Break 12:20 PM - 1:30 PM**

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**Session 10:  
Reconfigurable and Tunable Photonic Devices**

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Thursday 26 April 2018

1:30 PM - 3:20 PM

Location: Salon 2

Session Chair: Fabrice Raineri, Lab. de Photonique et de Nanostructures (France)

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**Harnessing photonic integrated circuits (Invited Paper)**

Paper 10686-38

Time: 1:30 PM - 2:00 PM


Author(s): Andrea I. Melloni, Politecnico di Milano (Italy)

[Add To My Schedule](#) **Automatic alignment of photonic components of massive optical switch to ITU channels (Conference Presentation)**

Paper 10686-39

Time: 2:00 PM - 2:20 PM


Author(s): Astghik Chalyan, Univ. degli Studi di Trento (Italy), Russian-Armenian (Slavonic) Univ. (Armenia); Stefano Tordini, Giorgio Fontana, Lorenzo Pavesi, Univ. degli Studi di Trento (Italy); Nikola Zecevic, Michael Hofbauer, Bernhard Goll, Horst Zimmermann, Technische Univ. Wien (Austria); Francesco Testa, Stefano Stracca, Alberto Bianchi, Ericsson R&amp;D (Italy); Costanza Manganeli, Philippe Velha, Scuola Superiore Sant'Anna (Italy), Consorzio Nazionale Interuniversitario per le Telecomunicazioni (Italy); Paolo Pintus, Scuola Superiore Sant'Anna (Italy), Consorzio Nazionale Interuniversitario per le Telecomunicazioni (Italy); Claudio Oton, Scuola Superiore Sant'Anna (Italy), Consorzio Nazionale Interuniversitario per le Telecomunicazioni (Italy); Christophe Kopp, Laetitia Adelmini, Olivier Lemonnier, Gabriel Pares, Commissariat à l'Énergie Atomique (France); Guido Chiaretti, STMicroelectronics S.A. (Italy); Aina Serrano, Jose Ángel Ayucar, Giovanni Battista Preve, Univ. Politècnica de València (Spain); Jong Moo Lee, Electronics and Telecommunications Research Institute (Korea, Republic of); Claudio Castellan, Univ. degli Studi di Trento (Italy)

[Add To My Schedule](#) **Automatic hitless reconfiguration of silicon photonics microring filters (Conference Presentation)**

Paper 10686-40

Time: 2:20 PM - 2:40 PM

Author(s): Douglas Aguiar, Mazyar Milanizadeh, Emanuele Guglielmi, Francesco Zanetto, Marco Sampietro, Francesco Morichetti, Andrea Melloni, Politecnico di Milano (Italy)

[Add To My Schedule](#) **Beam steering with optomechanical antennas on a silicon chip****(Canceled)**

Paper 10686-41

Time: 2:40 PM - 3:00 PM

Author(s):

**Silicon photonic crystal beam steering and frequency splitting at telecom wavelengths based on the manipulation of surface states (Conference Presentation)**

Paper 10686-42

Time: 3:00 PM - 3:20 PM

Author(s): Anna C. Tasolamprou, Foundation for Research and Technology-Hellas (Greece); Thomas Koschny, Ames Lab., Iowa State Univ. of Science and Technology (United States); Maria Kafesaki, Foundation for Research and Technology-Hellas (Greece); Costas Soukoulis, Ames Lab., Iowa State Univ. of Science and Technology (United States), Foundation for Research and Technology-Hellas (Greece)

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