

Venue

10.08–16.08 16.08	Mansion “Burevestnik”, Luga, Saint Petersburg Region 13:30 Transfer to St Petersburg
17.08–22.08	Academic University, Saint Petersburg, Russia

DETAILED PROGRAM

Sunday, August 10

Mansion “Burevestnik”, Luga

- 17:00–19:00 **Registration and Reception**
19:00–22:00 **Welcome Party** (Banquet Hall and Outdoor Terrace)

Monday, August 11

Conference Hall Mansion “Burevestnik”, Luga

- 08:15–08:45 **Registration**
08:45–09:00 **Opening Welcome Remarks**
Vladimir Dubrovskii, St Petersburg Academic University and Ioffe Institute
- 09:00–10:30 **Session MoA1 Quantum optics** (Chair: David Sampson)
09:00–09:45 Large scale switching and polarization control in InP photonic integrated circuits — new degrees of freedom in integrated photonics
Yoshiaki Nakano, University of Tokyo
- 09:45–10:30 Quantum dot-based memories
Tobias Nowozin, TU Berlin
- 10:30–11:00 **Tea & Coffee Break**
- 11:00–12:30 **Session MoA2 Growth of Nanostructures** (Chair: Yoshiaki Nakano)
11:00–11:45 Elastic relaxation and plastic deformation in optical III–V nanostructures grown on Si
Vladimir Dubrovskii, St Petersburg Academic University and Ioffe Institute
- 11:45–12:30 Nanoscale effects in nanowire formation
Frank Glas, CNRS–Laboratoire de Photonique et de Nanostructures
- 12:30–14:00 **Lunch**
- 14:00–15:30 **Session MoA3 Modeling of Semiconductor Lasers** (Chair: C.C. Yang)
14:00–14:45 Quantum dot laser time-scales
Evgeniy Viktorov, ITMO University, St Petersburg
- 14:45–15:30 Dynamics of optical fields in semiconductor lasers
Uwe Bandelow, WIAS Berlin
- 15:30 **Group Photo**
- 16:00–16:30 **Tea & Coffee Break**
- 16:30–18:00 **Session MoA4 Widegap Materials and Devices** (Chair: Uwe Bandelow)
16:30–17:15 Strain engineering in nitride semiconductor nanostructures and optoelectronic applications
Pei-Cheng Ku, University of Michigan
- 17:15–18:00 Nitride nanowire photodetectors and light emitting diodes
MariaTchernycheva, University Paris Sud
- 19:00–22:00 **Welcome Outdoor Party with Barbeque at the Lake**

Tuesday, August 12

Conference Hall Mansion “Burevestnik”, Luga

- 08:30–09:00 **Registration**
- 09:00–10:30 **Session TuA1 Microcavities and Photonic Crystals** (Chair: Frank Glas)
- 09:00–9:45 Accelerated radiative emission of Er atoms in metallic nanocavity
Yon-Hee Lee, KAIST
- 09:45–10:30 Topological states in resonant photonic crystals
Eugene Ivchenko, Ioffe Institute
- 10:30–11:00 **Tea & Coffee Break**
- 11:00–12:30 **Session TuA2 Devices and Systems** (Chair: Tobias Nowozin)
- 11:00–11:45 Key technologies for elastic optical Networks
Zhangyuan Chen, Beijing University
- 11:45–12:30 Recent progress of efficiency droop improvement for high brightness GaN-based light-emitting diodes
Hao-Chung Kuo, National Chiao-Tung University (will be delivered by Pei-Cheng Ku, University of Michigan)
- 12:30–14:00 **Lunch**
- 14:00–15:30 **Session TuA3 Nanostructure Technologies** (Chair: Vladimir Dubrovskii)
- 14:00–14:45 Hydride VPE: the unexpected process for the fast growth of III–V nanowires with record aspect ratio and polytypism-free crystalline structure
Evelyne Gil, Clermont University
- 14:45–15:30 Integration of carbon nanotubes
Dagou Zeze, Durham University
- 15:30–16:00 **Tea & Coffee Break**
- 16:00–19:00 **Poster Session I** (Chair: Yong-Hee Lee)
- 16:00–17:00 **Poster Introduction** (3 min each)
- 17:00–19:00 **Poster viewing**
- 19:00–20:30 **Dinner**

Wednesday, August 13

Luga, Pskov

- 08:40 Meeting in front of the main gate of the mansion “Burevestnik”
- 09:00–18:30 **Excursion to Pskov**
- 19:00–20:30 **Dinner**

Thursday, August 14

Conference Hall Mansion “Burevestnik”, Luga

- 08:30–09:00 **Registration**
- 09:00–10:30 **Session ThA1 Applications of Photonics** (Chair: Andrew Gallant)
- 09:00–09:45 Using photonics to probe tissue biomechanics in biology and medicine
David D. Sampson, University of Western Australia
- 09:45–10:30 Integrated photonic devices for fiber communications and microwave photonics
Changzheng Sun, Tsinghua University
- 10:30–11:00 **Tea & Coffee Break**
- 11:00–12:30 **Session ThA2 Nanophotonics** (Chair: Alexei Zhukov)
- 11:00–11:45 Novel concepts for deterministic quantum light sources and on-chip quantum optics
Stephan Reitzenstein, TU Berlin
- 11:45–12:30 *Free time*
- 12:30–14:00 **Lunch**
- 14:00–15:30 **Session ThA3 Quantum Dots and Quantum Wires** (Chair: Maria Tchernycheva)
- 14:00–14:45 Quantum dot and quantum wires systems for nanophotonics
Eli Kapon, Swiss Federal Institute of Technology Lausanne
- 14:45–15:30 Quantum dot microring lasers
Alexey Zhukov, St Petersburg Academic University
- 15:30–16:00 **Tea & Coffee Break**
- 16:00–18:00 **Rump Session 1 Integration of Optoelectronics with Silicon**
(Eli Kapon, David Sampson, Yong-Hee Lee)

18:00–20:00 *Free time*
20:00–22:30 **Outdoor Party with Barbeque at the Lake**

Friday, August 15

Conference Hall Mansion “Burevestnik”, Luga

08:30–09:00 **Registration**
09:00–10:30 **Session FrA1 Optoelectronic Devices** (Chair: Eli Kapon)
09:00–09:45 High speed modulation and new functions of transverse coupled cavity VCSELs
Fumio Koyama, Tokyo Institute of Technology
09:45–10:30 Highly efficient organic devices
Karl Leo, TU Berlin
10:30–11:00 **Tea & Coffee Break**
11:00–12:30 **Session FrA2 IR and Terahertz** (Chair: Fumio Koyama)
11:00–11:45 Interband cascade lasers for the 3 to 5 μm range
Alfred Forchel, University of Würzburg
11:45–12:30 Terahertz generation and detection: what is the state-of-the art?
Andrew Gallant, Durham University
12:30–14:00 **Lunch**
14:00–16:00 **Local attractions:** Collecting mushrooms in the forest or visiting local zoo or boating
16:00–16:30 **Tea & Coffee Break**
16:30–19:30 **Poster Session II** (Chair: Fumio Koyama)
16:30–17:30 **Poster Introduction** (3 min each)
17:30–19:30 **Poster viewing**
19:30–21:00 **Dinner**

Saturday, August 16

Mansion “Burevestnik”, Luga

Transfer to St Petersburg
09:00–12:00 Hotel check out and Free time
12:00–13:30 **Lunch**
13:30–17:00 Bus transfer to St Petersburg and hotel registration
Free evening in St Petersburg

Sunday, August 17

St Petersburg, Tsarskoye selo (Pushkin)

Sightseeing in St Petersburg and Tsarskoye selo
10:15 Meeting outside the St Petersburg Academic University in front of the main gate
10:30 Buses leave from the St Petersburg Academic University for the Hotel “St Petersburg”
10:45 Meeting in the main lobby of the Hotel “St Petersburg”
11:00 Buses leave from the Hotel “St Petersburg”
11:00–14:00 **Bus city tour and transfer to Tsarskoye selo**
14:00–15:30 **Lunch in Pushkin**
15:30–17:00 **Excursion to the Catherine park**
17:00–17:20 Free time to take pictures
17:20 Meeting in front of the Catherine palace
17:30–19:00 **Excursion to the Catherine palace**
19:00–20:15 Transfer to the Hotel “St Petersburg” and St Petersburg Academic University
Free evening in St Petersburg

Monday, August 18

Conference Hall, St Petersburg Academic University

08:15–08:45 **Registration**
08:45–09:00 **Opening Ceremony** (Connie Chang-Hasnain, Vladimir Dubrovskii)
09:00–10:30 **Session MoB1 Quantum Dots** (Chair: Connie Chang-Hasnain)

- 09:00–10:30 **Plenary talk:** Quantum dots: genesis, the excitonic zoo, and nano-photonics
Dieter Bimberg, TU Berlin
- 10:30–11:00 **Tea & Coffee Break**
- 11:00–12:30 **Session MoB2 Photonics on Silicon** (Chair: Vladimir Dubrovskii)
- 11:00–12:30 **Plenary talk:** Nanophotonics on silicon
Connie Chang-Hasnain, University of California, Berkeley
- 12:30–14:00 **Lunch**
- 14:00–15:30 **Session MoB3 Nanophotonics** (Chair: Dieter Bimberg)
- 14:00–14:45 Recent advances in quantum dot lasers: Silicon photonics application, commercialization, and single dot lasers
Yasuhiko Arakawa, University of Tokyo
- 14:45–15:30 Advanced VCSEL structure
Werner Hofmann, TU Berlin
- 15:30–16:00 **Group Photo**
- 16:00–16:30 **Tea & Coffee Break**
- 16:30–18:00 **Session MoB4 Nanographites and Nanoantennas** (Chair: Yasuhiko Arakawa)
- 16:30–17:15 Superdirective all-dielectric nanoantennas: theory and experiment
Pavel A. Belov, ITMO University, St Petersburg
- 17:15–18:00 Raman characterization of nanographites
Alexander V. Baranov, ITMO University, St Petersburg
- 18:30–21:00 **Welcome Reception** (St Petersburg Academic University)

Tuesday, August 19

Conference Hall, St Petersburg Academic University

- 08:30–09:00 **Registration**
- 09:00–10:30 **Session TuB1 Nanowires** (Chair: Evelyne Gil)
- 09:00–09:45 Polytypism in III–V nanowires and its implications for optical properties
Jonas Johansson, Lund University
- 09:45–10:30 Novel experimental schemes to study the impact of excited electrons on devices and nanomaterials
Bruno Grandidier, IEMN, Département ISEN
- 10:30–11:00 **Tea & Coffee Break**
- 11:00–12:30 **Session TuB2 Applications and Systems** (Chair: Werner Hofmann)
- 11:00–11:45 Advances in optical orbital-angular-momentum multiplexing
Alan Willner, University of Southern California
- 11:45–12:30 II–VI semiconductor solar cells — nanowires and extended defects
Ken Durose, University of Liverpool
- 12:30–14:00 **Lunch**
- 14:00–16:00 **Rump session II Semiconductor Nanowires: How we make them and what are they useful for**
(ITN Nanoembrace Consortium)
- 16:00–16:30 **Tea & Coffee Break**
- 16:30–18:30 **Rump session III Perspectives and Challenges of Solid State Lighting**
(Dieter Bimberg, James Harris, Alan Willner, Connie Chang-Hasnain, Nicolas Grandjean)
- 18:30–22:00 **Free Evening**

Wednesday, August 20

Conference Hall, St Petersburg Academic University

- 08:30–09:00 **Registration**
- 09:00–10:30 **Session WeB1 Epitaxy and Heterojunctions** (Chair: Nicolas Grandjean)
- 09:00–10:30 **Plenary Talk:** Heterojunctions and epitaxy: the foundations of photonics
James Harris, Stanford University
- 10:30–11:00 **Tea & Coffee Break**
- 11:00–12:30 **Session WeB2 Widegap Materials and Devices** (Chair: James Harris)
- 11:00–11:45 GaN based nanostructures: from physics to applications
Nicolas Grandjean, Institute of Condensed Matter Physics, Lausanne
- 11:45–12:30 Development of nitride nanorod light-emitting diode array
Chih-Chung Yang, National Taiwan University
- 12:30–14:00 **Lunch**

- 14:00–15:30 **Session WeB3 Plasmons and Polaritons** (Chair: Nicolas Grandjean)
 14:00–14:45 Solid state polariton lasers
Pallab Bhattacharya, University of Michigan
 14:45–15:30 Experimental demonstration of Tamm plasmon based vertical microcavity with virtually non-absorbing metallic layers
Michael Kaliteevski, SPb Academic University
 15:00–15:30 **Tea & Coffee Break**
 16:00–19:00 **Poster Session III** (Chair: Dieter Bimberg)
 16:00–17:00 **Poster Introduction** (3 min each)
 17:00–19:00 **Poster viewing**
 19:00–20:30 **Dinner** (St Petersburg Academic University)

Thursday, August 21

Conference Hall, St Petersburg Academic University

- 08:30–09:00 **Registration**
 09:00–10:30 **Session ThB1 Nanophotonics** (Chair: Pallab Bhattacharya)
 09:00–09:45 InP-based mid- to far-infrared LEDs and semiconductor lasers
Markus Amann, TU Munich
 09:45–10:30 Multi-functional MOS diodes based on metal nanoparticles and high-k dielectrics
Gadi Eisenstein, RBNI
 10:30–11:00 **Tea & Coffee Break**
 11:00–12:30 **Session ThB2 High Speed Devices** (Chair: Markus Amman)
 11:00–11:45 Quantum dot based mode locked lasers and applications
Abderrahim Ramdane, CNRS–Laboratoire de Photonique et de Nanostructures
 11:45–12:30 Title to be announced
Guillaume Huyet, Tyndall National Institute
 12:30–14:00 **Lunch**
 14:00–15:30 **Session ThB3 General Aspects of Nanophotonics** (Chair: Gadi Eisenstein)
 14:00–14:45 Chaotic propagation of light in perfectly periodic structures
Emmanuel Rousseau, University Montpellier 2
 14:45–15:30 Chiral quantum dot based materials
Yurii K. Gun'ko, Trinity College Dublin and ITMO University, St Petersburg
 15:30–16:00 **Tea & Coffee Break**
 16:00–17:30 **Session ThB4 Quantum Optics** (Chair: Emmanuel Rousseau)
 16:00–16:45 Optomechanical cavity based on nanostructure
Yidong Huang, Tsinghua University
 16:45–17:30 3D freeform optical surface construction: the enabling technology for solid state lighting
Yi Luo, Tsinghua University (will be delivered by Changzheng Sun, Tsinghua University)
 18:30–20:00 **Dinner** (St Petersburg Academic University)

Friday, August 22

St Petersburg

Sightseeing in St Petersburg and Award Banquet

- 09:15 Meeting outside the St Petersburg Academic University in front of the main gate
 09:30 Buses leave from the St Petersburg Academic University for the Hotel “St Petersburg”
 09:45 Meeting in the main lobby of the Hotel “St Petersburg”
 10:00 Buses leave from the Hotel “St Petersburg”
 10:00–11:00 Bus transfer from the Hotel “St Petersburg” to the Hermitage
 11:00–13:30 **Excursion to the Hermitage**
 13:30–14:00 Transfer to the restaurant
 14:00–15:30 **Lunch**
 15:30–17:00 **Visiting Peter and Paul Fortress**
 17:00–18:00 Transfer to the boat
 18:00–21.30 **Boat Trip and Award Banquet**