NANOWIRE WEEK 2018

June 11-15, 2018

Hamilton, Ontario, Canada

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Welcome Message

I would like to extend a warm welcome to Hamilton and to Nanowire Week 2018. Nanowire Week 2018 will be 5 days of lively discussion on all areas of nanowire research, from growth to applications. Nanowire Week is the merger of two well-established and highly successful annual workshops: Nanowires (established in 2008) and the Nanowire Growth Workshop (established in 2006). This is the second Nanowire Week, with the first one being held in Lund, Sweden, in 2017. Nanowire Week 2018 will cover all topics of nanowire-related research, from fabrication and fundamental properties to applications.

Our aim with Nanowire Week is to create an open, dynamic atmosphere for discussing and debating the latest news and open questions in nanowire research. The presentations will therefore focus on hot topics and especially on new, unpublished results. Open questions, unexpected findings and unconventional ideas are encouraged!

The technical program of Nanowire Week 2018 includes 18 invited speakers, 41 contributed oral presentations, and over 100 poster presentations. We are pleased to welcome over 150 participants.

I would like to thank the International Steering Committee and the Local Organizing Committee for their hard work in making this meeting a success. I would also like to thank our sponsors for their support.

I hope you enjoy your stay in Hamilton, and I wish you a productive meeting.

Best Regards,

Ray LaPierre
Nanowire Week 2018 Chair

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Program Overview

Nanowire Week 2018 includes 18 invited talks, 42 contribued talks, and 3 poster sessions.

	Monday, June 11	Tuesday, June 12	Wednesday, June 13	Thursday, June 14	Friday, June 15
08:50 – 09:00	Opening Remarks				
09:00 – 09:30	Invited Talk I1 **Ning** *Semiconductor alloy nanowires with widely tunable compositions and bandgaps for photonic applications*	Invited Talk I5 **Yanagida** *Impact of flux window principle on oxide nanowires and their properties*	Invited Talk I10 **Reimer** *Nanowire-based quantum photonics*	Invited Talk I12 **Panciera** *In-situ TEM study of the crystal phase selection in III-V nanowires*	Invited Talk I17 **Dayeh** *A nanowire platform for high throughput drug screening*
09:30 – 09:50	Contributed Talk M1.1 **Friedl** *Laterally-oriented In(Ga)As nanowires grown on GaAs nanomembranes*	Contributed Talk Tu1.1 **Cahoon** *Self-catalyzed vapor-liquid-solid growth of lead halide and perovskite nanowires using a liquid lead catalyst*	Contributed Talk W1.1 **Estrada Saldaña** *Supercurrent through double quantum dots in nanowires with epitaxial superconducting contacts*	Contributed Talk Th1.1 **Anttu** *Intuitive and efficient analysis of absorption, scattering and emission of light in nanowire array solar cells, photodetectors and LEDs*	Contributed Talk F1.1 **Martelli** *Thermal rectification in telescopic nanowires*
09:50 – 10:10	Contributed Talk M1.2 **Tauchnitz** *A simple route to synchronized nucleation of self-catalyzed GaAs nanowires on Si for sub-Poissonian length distributions*	Contributed Talk Tu1.2 **Fadaly** *Realization of hexagonal Ge on GaAs*	Contributed Talk W1.2 **Kang** *Study of 0-pi phase transition in hybrid superconductor-InSb nanowire quantum dot devices*	Contributed Talk Th1.2 **Troian** *Nanobeam X-ray fluorescence investigation on in situ Zn-doped nanowires reveals gradients and background doping*	Contributed Talk F1.2 **Rossella** *Electric-double-layer transistor based on InAs nanowire gated by ionic liquid*
10:10 – 10:30	Contributed Talk M1.3 **Haffouz** *Telecom wavelength quantum dot single photon sources using position-controlled InP nanowires*	Contributed Talk Tu1.3 **Glas** *Quantitative modelling of step flow at the liquid-solid interface based on in situ TEM observation of the growth of III-V nanowires*	Contributed Talk W1.3 **Roddaro** *Field-effect control of spin-orbit coupling in suspended InAs nanowires*	Contributed Talk Th1.3 **Shan** *High-throughput contactless conductivity measurement of semiconductor nanowires with complex doping profiles*	Contributed Talk F1.3 **Sun** *Erbium chloride silicate nanowires with a giant optical gain*
10:30 – 11:00	Refreshment Break	Refreshment Break	Refreshment Break	Refreshment Break	Refreshment Break
11:00 – 11:30	Invited Talk I2 **Zhang** *InP/InAs heterostructure nanowires grown by indium-particle-catalyzed vapor-liquid-solid mode*	Invited Talk I6 **Lugstein** *Synthesis and applications of monolithic metal-semiconductor nanowire heterostructures*	Invited Talk I11 **Arakawa** *Nanowire-quantum-dots for nanolasers and single photon sources*	Invited Talk I13 **Boland** *Revealing novel optoelectronic properties of semiconductor nanowires via Terahertz spectroscopy*	Invited Talk I18 **Tian** *Silicon nanowire based biophysical tools for extracellular and intracellular modulations*

11:30 – 11:50	Contributed Talk M2.1 **Cattoni** *Advances in III-V nanowires on silicon for tandem solar cells*	Contributed Talk Tu2.1 **Namazi** *Suitable nanowire templates for realizing wurtzite antimonides*	Contributed Talk W2.1 **Baugh** *Magneto-transport of nanowire FETs in normal and superconducting regimes*	Contributed Talk Th2.1 **Herranz** *Direct correlation of luminescence and polytype for (In,Ga)As shell quantum wells in zincblende and wurtzite GaAs nanowire segments*	Contributed Talk F2.1 **Spies** *Linearity of the photoresponse in heterostructured GaN/AlN nanowires*
11:50 – 12:10	Contributed Talk M2.2 **Jaffal** *Bright single InAs quantum dots at telecom wavelengths in conical tapered InP nanowires monolithically grown on Si*	Contributed Talk Tu2.2 **Lepsa** *InAs/GaSb core-shell nanowire arrays*	Contributed Talk W2.2 **Hartke** *Microwave detection of electron-phonon interactions in a cavity-coupled InAs nanowire double quantum dot*	Contributed Talk Th2.2 **Mukherjee** *Bias-dependent scanning photocurrent microscopy on single GaAs nanowire graphene hybrid device*	Contributed Talk F2.2 **Teitsworth** *High-voltage multijunction p-i-n silicon nanowire devices for water-splitting particle suspension reactors*
12:10 – 12:30	Contributed Talk M2.3 **Jacobsson** *Relationship between seed particle composition and GaAs nanowire growth dynamics revealed by in-situ TEM*	Contributed Talk Tu2.3 **Kris Bertness** *Spectral tuning of localized surface phonon-polariton modes in selective area epitaxy GaN nanowire arrays*	Contributed Talk W2.3 **Cordoba** *Mapping the built-in potential at Si nanowire tunnel diodes*	Contributed Talk Th2.3 **Parkinson** *Non-contact measurement of p-doping for high-yield room-temperature nanowire lasing*	Contributed Talk F2.3 **Alexandra-Madalina Siladie** *Doping and electrical transport optimization of $Al_xGa_{1-x}N$ nanowire heterostructures for UV-C LEDs*
12:30 – 13:30	Lunch	Lunch	Lunch	Lunch	Closing Remarks Lunch
13:30 – 14:00	Invited Talk I3 **Bellet-Amalric** *Quantitative study of the vapor-solid-solid growth of II-VI quantum dots in nanowires*	Invited Talk I7 **Buyanova** *GaAs/GaNAs core/shell nanowires - a promising platform for nanoscale optoelectronics*	Free time / Excursion to Niagara Falls	Invited Talk I14 **Weman** *Growth and fabrication of III-V nanowire/graphene hybrid structures and devices*	Conference Ends Tour of Canadian Centre for Electron Microscopy at McMaster University (limited enrollment; sign-up sheet at the registration desk)
14:00 – 14:20	Contributed Talk M3.1 **Zannier** *Nanoparticle stability in axial InAs-InP nanowire heterostructures with atomically sharp interfaces*	Contributed Talk Tu3.1 **Zytkiewicz** *Influence of growth parameters on the incubation time preceding the self-assembled formation of GaN nanowires on a-Al_xO_y-buffered Si*		Contributed Talk Th3.1 **Kosmaca** *In-situ characterization of Bi_2Se_3 and $Ge_{1-x}Sn_x$ nanowires for their application in nanoelectromechanical switches*	
14:20 – 14:40	Contributed Talk M3.2 **Bartmann** *Strain induced band-gap modification of Ge NWs*	Contributed Talk Tu3.2 **Ishikawa** *Molecular beam epitaxial growth of GaNAs and GaInNAs nanowires*		Contributed Talk Th3.2 **McNamee** *Fabrication of a GaP nanowire betavoltaic device using Ni-63*	
14:40 – 15:10	Refreshment Break	Poster Session P2 with Refreshment Break		Poster Session P3 with Refreshment Break	
15:10 – 15:30	Contributed Talk M4.1 **Custer** *Asymmetric silicon nanowires as geometric diodes for high-frequency electron ratcheting*				

15:30 – 16:00	Invited Talk I4 **Klinovaja** *Metallization of Rashba wire by superconducting layer in the strong-proximity regime*				
16:00 – 16:20	Contributed Talk M4.2 **Sistani** *Ultra-scaled quantum ballistic Ge nanowire photodetectors*	Invited Talk I8 **Lewis** *Nanowires bending over backwards from strain partitioning in asymmetric core–shell heterostructures*		Invited Talk I15 **Prinz** *Bioapplications of nanowires*	
16:20 – 16:30	Poster Session P1 and Cocktail Reception				
16:30 – 16:50		Contributed Talk Tu4.1 **Meng** *Coherent misfit strain in core-shell Ge/$Ge_{1-x}Sn_x$ nanowire light emitters*		Contributed Talk Th4.1 **Gagliano** *Efficient green emission from wurtzite $Al_xIn_{1-x}P$ nanowires*	
16:50 – 17:10		Contributed Talk Tu4.2 **Balaghi** *Strain engineering in lattice-mismatched core/shell nanowires: extending the properties of GaAs*		Contributed Talk Th4.2 **Høiaas** *Using graphene as substrate and transparent electrode in a GaN/AlGaN nanocolumn flip-chip UV LED*	
17:10 – 17:40		Invited Talk I9 **Beidenkopf** *Imaging effects of interactions in semiconducting nanowires*		Invited Talk I16 **Jagadish** *Semiconductor nanowires for optoelectronics and neuroscience applications*	
19:00 – 23:00			Conference Dinner		

ORAL SESSIONS

Monday, June 11, 2018

8:00 – 8:50 Registration

8:50 – 9:00 Opening remarks

9:00 – 10:30	Oral Session M1 Chair: Michael Filler	
9:00 – 9:30	**Cun-Zheng Ning** Tsinghua University, China *Semiconductor alloy nanowires with widely tunable compositions and bandgaps for photonic applications*	Invited I1
9:30 – 9:50	**Martin Friedl** École Polytechnique Fédérale de Lausanne, Switzerland *Laterally-oriented In(Ga)As nanowires grown on GaAs nanomembranes*	Contributed M1.1
9:50 – 10:10	**Tina Tauchnitz** Helmholtz-Zentrum Dresden-Rossendorf, Germany *A simple route to synchronized nucleation of self-catalyzed GaAs nanowires on Si for sub-Poissonian length distributions*	Contributed M1.2
10:10 – 10:30	**Sofiane Haffouz** *Telecom wavelength quantum dot single photon sources using position-controlled InP nanowires*	Contributed M1.3

10:30 – 11:00 Refreshment break

11:00 – 12:30	Oral Session M2 Chair: Vladimir Dubrovskii	
11:00 – 11:30	**Guoqiang Zhang** NTT Basic Research Laboratories, NTT Corporation, Japan *InP/InAs heterostructure nanowires grown by indium-particle-catalyzed vapor-liquid-solid mode*	Invited I2

11:30 – 11:50	**Andrea Cattoni** Centre de Nanosciences et de Nanotechnologies (C2N) - CNRS, Université Paris-Sud, Université Paris-Saclay, France *Advances in III-V nanowires on silicon for tandem solar cells*	Contributed M2.1
11:50 – 12:10	**Ali Jaffal** Institut des Nanotechnologies des Lyon, France *Bright single InAs quantum dots at telecom wavelengths in conical tapered InP nanowires monolithically grown on Si*	Contributed M2.2
12:10 – 12:30	**Daniel Jacobsson** Lund University, Sweden *Relationship between seed particle composition and GaAs nanowire growth dynamics revealed by in-situ TEM*	Contributed M2.3

12:30 – 13:30 Lunch

13:30 – 14:00	Oral Session M3 Chair: Andrea Cattoni	
13:30 – 14:00	**Edith Bellet-Amalric** Université Grenoble Alpes, CEA, INAC, France *Quantitative study of the vapor-solid-solid growth of II-VI quantum dots in nanowires*	Invited I3
14:00 – 14:20	**Valentina Zannier** NEST, Istituto Nanoscienze – CNR and Scuola Normale Superiore, Italy *Nanoparticle stability in axial InAs-InP nanowire heterostructures with atomically sharp interfaces*	Contributed M3.1
14:20 – 14:40	**Maximilian Bartmann** Institute of Solid State Electronics, Technische Universität Wien, Austria *Strain induced band-gap modification of Ge NWs*	Contributed M3.2

14:40 – 15:10 Refreshment break

15:10 – 15:30	Oral Session M4 Chair: Anna Fontcuberta i Morral	
15:10 – 15:30	**James Custer** University of North Carolina at Chapel Hill , USA *Asymmetric silicon nanowires as geometric diodes for high-frequency electron ratcheting*	Contributed M4.1
15:30 – 16:00	**Jelena Klinovaja** University of Basel, Switzerland *Metallization of Rashba wire by superconducting layer in the strong-proximity regime*	Invited I4
16:00 – 16:20	**Masiar Sistani** Institute of Solid State Electronics, Technische Universität Wien, Austria *Ultra-scaled quantum ballistic Ge nanowire photodetectors*	Contributed M4.2

16:20 – 17:40 Poster session P1 and cocktail reception

Tuesday, June 12, 2018

9:00 – 10:30	Oral Session Tu1	Chair: Elisabetta Maria Fiordaliso	
9:00 – 9:30	**Takeshi Yanagida** Kyushu University, Japan *Impact of flux window principle on oxide nanowires and their properties*		Invited I5
9:30 – 9:50	**James Cahoon** University of North Carolina at Chapel Hill, USA *Self-catalyzed vapor-liquid-solid growth of lead halide and perovskite nanowires using a liquid lead catalyst*		Contributed Tu1.1
9:50 – 10:10	**Elham Fadaly** TU Eindhoven, Netherlands *Realization of hexagonal Ge on GaAs*		Contributed Tu1.2
10:10 – 10:30	**Frank Glas** Centre for Nanoscience and Nanotechnology, CNRS, Université Paris-Saclay, France *Quantitative modelling of step flow at the liquid-solid interface based on in situ TEM observation of the growth of III-V nanowires*		Contributed Tu1.3

10:30 – 11:00 Refreshment break

11:00 – 12:30	Oral Session Tu2	Chair: James Cahoon	
11:00 – 11:30	**Alois Lugstein** Technical University of Vienna, Austria *Synthesis and applications of monolithic metal-semiconductor nanowire heterostructures*		Invited I6
11:30 – 11:50	**Luna Namazi** Lund University, Sweden *Suitable nanowire templates for realizing wurtzite*		Contributed Tu2.1

	antimonides	
11:50 – 12:10	**Mihail Ion Lepsa** Forschungszentrum Jülich GmbH, Germany *InAs/GaSb core-shell nanowire arrays*	Contributed Tu2.2
12:10 – 12:30	**Kris Bertness** National Institute of Standards and Technology, USA *Spectral tuning of localized surface phonon-polariton modes in selective area epitaxy GaN nanowire arrays*	Contributed Tu2.3

12:30 – 13:30 Lunch

13:30 – 14:00	Oral Session Tu3 Chair: Paul McIntyre	
13:30 – 14:00	**Irina Buyanova** Linkoping University, Sweden *GaAs/GaNAs core/shell nanowires - a promising platform for nanoscale optoelectronics*	Invited I7
14:00 – 14:20	**Zbigniew Zytkiewicz** Institute of Physics, Polish Academy of Sciences, Poland *Influence of growth parameters on the incubation time preceding the self-assembled formation of GaN nanowires on a-AlxOy-buffered Si*	Contributed Tu3.1
14:20 – 14:40	**Fumitaro Ishikawa** Ehime University, Japan *Molecular beam epitaxial growth of GaNAs and GaInNAs nanowires*	Contributed Tu3.2

14:40 – 16:00 Poster session P2 with refreshment break

16:00 – 17:40	Oral Session Tu4	Chair: Parsian Katal Mohseni	
16:00 – 16:30	**Ryan Lewis** Paul Drude Institute for Solid-State Electronics, Germany *Nanowires bending over backwards from strain partitioning in asymmetric core–shell heterostructures*		Invited I8
16:30 – 16:50	**Andrew Meng** Stanford University, USA *Coherent misfit strain in core-shell Ge/Ge1-xSnx nanowire light emitters*		Contributed Tu4.1
16:50 – 17:10	**Leila Balaghi** Helmholtz-Zentrum Dresden-Rossendorf, Germany *Strain engineering in lattice-mismatched core/shell nanowires: extending the properties of GaAs*		Contributed Tu4.2
17:10 – 17:40	**Haim Beidenkopf** Weizmann Institute of Science, Israel *Imaging effects of interactions in semiconducting nanowires*		Invited I9

Wednesday, June 13, 2018

9:00 – 10:30	Oral Session W1 Chair: Jonathan Baugh	
9:00 – 9:30	**Michael Reimer** University of Waterloo, Canada *Nanowire-based quantum photonics*	Invited I10
9:30 – 9:50	**Juan Carlos Estrada Saldaña** Niels Bohr Institute, University of Copenhagen, Denmark *Supercurrent through double quantum dots in nanowires with epitaxial superconducting contacts*	Contributed W1.1
9:50 – 10:10	**Ning Kang** Key Laboratory for the Physics and Chemistry of Nanodevices and Department of Electronics, Peking University, China *Study of 0-pi phase transition in hybrid superconductor-InSb nanowire quantum dot devices*	Contributed W1.2
10:10 – 10:30	**Stefano Roddaro** University of Pisa & NEST Laboratory, Italy *Field-effect control of spin-orbit coupling in suspended InAs nanowires*	Contributed W1.3

10:30 – 11:00 Refreshment break

11:00 – 12:30	Oral Session W2 Chair: Naoki Fukata	
11:00 – 11:30	**Yasuhiko Arakawa** University of Tokyo, Japan *Nanowire-quantum-dots for nanolasers and single photon sources*	Invited I11
11:30 – 11:50	**Jonathan Baugh** University of Waterloo, Canada *Magneto-transport of nanowire FETs in normal and superconducting regimes*	Contributed W2.1

11:50 – 12:10	**Thomas Hartke** Princeton University, USA *Microwave detection of electron-phonon interactions in a cavity-coupled InAs nanowire double quantum dot*	Contributed W2.2
12:10 – 12:30	**Cristina Cordoba** Simon Fraser University, Canada *Mapping the built-in potential at Si nanowire tunnel diodes*	Contributed W2.3

12:30 – 13:30 Lunch

13:30 – 18:00 Excursion to Niagara Falls

19:00 – 23:00 Conference Dinner

Thursday, June 14, 2018

9:00 – 10:30	Oral Session Th1 Chair: Jessica Boland	
9:00 – 9:30	**Federico Panciera** Centre for Nanoscience and Nanotechnology, CNRS, Université Paris-Sud, Université Paris-Saclay, France *In-situ TEM study of the crystal phase selection in III-V nanowires*	Invited I12
9:30 – 9:50	**Nicklas Anttu** Aalto University, Finland *Intuitive and efficient analysis of absorption, scattering and emission of light in nanowire array solar cells, photodetectors and LEDs*	Contributed Th1.1
9:50 – 10:10	**Andrea Troian** Synchrotron Radiation Research and NanoLund, Lund University, Sweden *Nanobeam X-ray fluorescence investigation on in situ Zn-doped nanowires reveals gradients and background doping*	Contributed Th1.2
10:10 – 10:30	**Jerry Wei-Jen Shan** Rutgers University, USA *High-throughput contactless conductivity measurement of semiconductor nanowires with complex doping profiles*	Contributed Th1.3

10:30 – 11:00 Refreshment break

11:00 – 12:30	Oral Session Th2 Chair: Hadas Shtrikman	
11:00 – 11:30	**Jessica Boland** University of Regensburg, Germany *Revealing novel optoelectronic properties of semiconductor nanowires via Terahertz spectroscopy*	Invited I13

11:30 – 11:50	**Jesus Herranz** Paul-Drude-Institut für Festkörperelektronik, Germany *Direct correlation of luminescence and polytype for (In,Ga)As shell quantum wells in zincblende and wurtzite GaAs nanowire segments*	Contributed Th2.1
11:50 – 12:10	**Anjan Mukherjee** Norwegian University of Science and Technology, Norway *Bias-dependent scanning photocurrent microscopy on single GaAs nanowire graphene hybrid device*	Contributed Th2.2
12:10 – 12:30	**Patrick Parkinson** University of Manchester, United Kingdom *Non-contact measurement of p-doping for high-yield room-temperature nanowire lasing*	Contributed Th2.3

12:30 – 13:30 Lunch

13:30 – 14:00	Oral Session Th3 Chair: Simon Watkins	
13:30 – 14:00	**Helge Weman** Norwegian University of Science and Technology, Norway *Growth and fabrication of III-V nanowire/graphene hybrid structures and devices*	Invited I14
14:00 – 14:20	**Jelena Kosmaca** University of Latvia, Latvia *In-situ characterization of Bi_2Se_3 and $Ge_{1-x}Sn_x$ nanowires for their application in nanoelectromechanical switches*	Contributed Th3.1
14:20 – 14:40	**Simon McNamee** McMaster University, Canada *Fabrication of a GaP nanowire betavoltaic device using Ni-63*	Contributed Th3.2

14:40 – 16:40 Poster session P3 with refreshment break

16:00 – 18:00	Oral Session Th4 Chair: Kimberly Thelander	
16:00 – 16:30	**Christelle Prinz** Lund University, Sweden *Bioapplications of nanowires*	Invited I15
16:30 – 16:50	**Luca Gagliano** Eindhoven University of Technology, Netherlands *Efficient green emission from wurtzite AlxIn1-xP nanowires*	Contributed Th4.1
16:50 – 17:10	**Ida Marie Høiaas** Norwegian University of Science and Technology, Norway *Using graphene as substrate and transparent electrode in a GaN/AlGaN nanocolumn flip-chip UV LED*	Contributed Th4.2
17:10 – 17:40	**Chennupati Jagadish** Australian National University, Australia *Semiconductor nanowires for optoelectronics and neuroscience applications*	Invited I16

Friday, June 15, 2018

9:00 – 10:30	Oral Session F1	Chair: Chennupati Jagadish	
9:00 – 9:30	**Shadi Dayeh** University of California San Diego, USA *A nanowire platform for high throughput drug screening*		Invited I17
9:30 – 9:50	**Faustino Martelli** Consiglio Nazionale delle Ricerche, Italy *Thermal rectification in telescopic nanowires*		Contributed F1.1
9:50 – 10:10	**Francesco Rossella** NEST, Scuola Normale Superiore and Istituto Nanoscienze-CNR, Italy *Electric-double-layer transistor based on InAs nanowire gated by ionic liquid*		Contributed F1.2
10:10 – 10:30	**Hao Sun** Tsinghua University, China *Erbium chloride silicate nanowires with a giant optical gain*		Contributed F1.3

10:30 – 11:00 Refreshment break

11:00 – 12:30	Oral Session F2	Chair: Lutz Geelhar	
11:00 – 11:30	**Bozhi Tian** University of Chicago, USA *Silicon nanowire based biophysical tools for extracellular and intracellular modulations*		Invited I18
11:30 – 11:50	**Maria Spies** University Grenoble-Alpes, CNRS, Institut Néel, France *Linearity of the photoresponse in heterostructured GaN/AlN nanowires*		Contributed F2.1

11:50 – 12:10	**Taylor Teitsworth** University of North Carolina at Chapel Hill, USA *High-voltage multijunction p-i-n silicon nanowire devices for water-splitting particle suspension reactors*	Contributed F2.2
12:10 – 12:30	**Alexandra-Madalina Siladie** CEA Grenoble, France *Doping and electrical transport optimization of AlxGa1-xN nanowire heterostructures for UV-C LEDs*	Contributed F2.3

12:30 – 12:40 Closing remarks

12:40 – 13:30 Lunch

13:30 – 16:00 Tour of Canadian Centre for Electron Microscopy at McMaster University (limited enrollment; sign-up sheet at the registration desk)

POSTER SESSIONS

Monday, June 11, 2018

16:20 – 18:20 Poster Session P1

P1.1	**Yamina Andre** Université Clermont Auvergne, CNRS, SIGMA Clermont, Institut Pascal, France *Hydride vapor phase epitaxy of binary and ternary III-nitride nanowires*
P1.2	**Thomas Auzelle** Paul-Drude-Institut für Festkörperelektronik, Germany *Tuning the shape of GaN nanowires in molecular beam epitaxy using an in situ thermal decomposition process*
P1.3	**Ashkan Djaberi Dashtestani** University Ulm, Germany *Metal catalyst-free nucleation of silicon nanowires*
P1.4	**Marion Gruart** CEA Grenoble, France *Control of GaN nanowire morphology by molecular beam epitaxy*
P1.5	**Reza Jafari Jam** Lund University, Sweden *Gold electrodeposition in semiconductor nanowire technology*
P1.6	**Eero Koivusalo** Tampere University of Technology, Finland *Changing growth direction during self-catalyzed MBE of GaAs nanowires*
P1.7	**Simon Watkins** Simon Fraser University, Canada *Oxide fracture mechanism for nanowire regrowth and isolation*
P1.8	**Simone Assali** École Polytechnique Montréal, Canada *SiGeSn nanowire heterostructures for Si-compatible IR opto-electronics*
P1.9	**Romaric de Lépinau** IPVF, Institut Photovoltaïque d'Île-de-France, France *Investigating the composition variations in GaAsP nanowires for core-shell solar cell applications*

P1.10	**Anna Fontcuberta i Morral** École Polytechnique Fédérale de Lausanne, Switzerland *A-polar GaAs nanowires with improved structure and optical properties*
P1.11	**Lea Ghisalberti** École Polytechnique Fédérale de Lausanne, Switzerland *Understanding the wetting behavior of nanodroplets catalyzing the growth of III-V nanowires*
P1.12	**Vladimir Dubrovskii** ITMO University, Russia *"Stopping effect" and its role in oscillations of the truncated growth interface in III-V nanowires*
P1.13	**Erik Mårtensson** Solid State Physics, Lund University, Sweden *Simulating growth and polytypism of Au-seeded GaAs nanowires*
P1.14	**Amnon Rothman** Weizmann Institute of Science, Israel *Kinetics of horizontally guided nanowire growth*
P1.15	**Lucas Güniat** École Polytechnique Fédérale de Lausanne, Switzerland *The quest of [100] nanowires*
P1.16	**Jan Hajer** Physikalisches Institut (EP3), Universität Würzburg, Germany *Selective area grown ZnTe nanowires as the basis for quasi-one-dimensional CdTe-HgTe multishell heterostructures*
P1.17	**Miroslav Kolibal** Central European Institute of Technology – CEITEC, Czech Republic *Doping of ZnO whiskers: towards mid-IR plasmonics*
P1.18	**Egor Leshchenko** Lund University, Sweden *Composition of ternary III-V nanowires nucleating from quaternary liquid melts*
P1.19	**Martin Magnusson** Lund University, Sweden *Pseudo-particle continuum modeling of nanowire growth in aerotaxy*

P1.20	**Parsian Mohseni** Rochester Institute of Technology, USA *Selective lateral pseudo-van der Waals epitaxy of III-V nanowire arrays on graphene*
P1.21	**Martin Müller** Institute of Physics, Academy of Sciences of the Czech Republic, Czech Republic *3D Si nanowire structures: Controlling Si nanowire growth in-plane and out-of-plane*
P1.22	**Silvia Rubini** IOM-CNR Laboratorio TASC, Italy *Bi_2Se_3 nanowires by Au seeded molecular beam epitaxy*
P1.23	**Marta Sobanska** Institute of Physics, Polish Academy of Sciences, Poland *Growth mode, arrangement and polarity of GaN nanowires grown by PAMBE on Si(001) substrates: importance of the Si_xN interlayer*
P1.24	**Andrei Sokolovskii** ITMO University, Russia *Bi-stability of contact angle and its role in tuning the morphology of self-assisted GaAs nanowires*
P1.25	**Katsuhiro Tomioka** Hokkaido University, Japan *Vertical GaAs-InGaP core-shell nanowires on Si by selective-area growth*
P1.26	**Fumitaro Ishikawa** Ehime University, Japan *Over visible wavelengths polarized light from $AlGaO_x$ nanowire*
P1.27	**Julien Francois** C2N, Univ. Paris-Sud, Univ. Paris Saclay, France *Flexible optoelectronic devices based on III-nitride nanowires*
P1.28	**Naoki Fukata** National Institute for Materials Science (NIMS), Japan *Investigation of nanoscale voids in Sb-doped p-type ZnO nanowires*
P1.29	**Paige Wilson** McMaster University, Canada *Increasing nanowire diameters for solar cell applications*

Tuesday, June 12, 2018

14:40 – 16:40 Poster Session P2

P2.1	**Elisabetta Maria Fiordaliso** Center for Electron Nanoscopy, Technical University of Denmark, Denmark *Characterization of doping distribution in solar cell nanowires by off-axis electron holography*
P2.2	**Simon Watkins** Simon Fraser University, Canada *Photoluminescence excitation spectroscopy of surface excitons in ZnO nanowires*
P2.3	**Xulu Zeng** Solid State Physics, NanoLund, Lund University, Sweden *In situ surface passivation of GaInP nanowires by use of radially-grown AlInP shells*
P2.4	**Damon Carrad** Center for Quantum Devices, Niels Bohr Institute, University of Copenhagen, Denmark *In-situ patterned superconductor/semiconductor nanowires*
P2.5	**Hadi Hijazi** Université Clermont Auvergne, Institut Pascal, France *Charge and spin transport in GaAs nanowires grown by HVPE*
P2.6	**Fumitaro Ishikawa** Ehime University, Japan *Structural investigations on GaAs/GaAsBi core-multishell nanowires*
P2.7	**Faustino Martelli** Istituto Microelettronica e Microsistemi del Consiglio Nazionale delle Ricerche, Italy *Plasmon-induced changes to the luminescence of ZnSe nanowires*
P2.8	**Roy Op het Veld** Eindhoven University of Technology, Netherlands *In-plane InSb nanowire networks for scalable Majorana devices*

P2.9	**Lyubomir Ahtapodov** Norwegian University of Science and Technology, Norway *Optical determination of the GaAs zinc-blende/wurtzite band offsets*
P2.10	**Simone Assali** Polytechnique Montreal, Canada *Critical strain for Sn incorporation in spontaneously graded Ge/GeSn core/shell nanowires*
P2.11	**Franck Bassani** CNRS/LTM, France *Dopant and chemical composition profiling in IV-IV nanowires*
P2.12	**Kris Bertness** National Institute of Standards and Technology, USA *Raman spectroscopy for dopant optimization in GaN nanowire light-emitting diodes*
P2.13	**Luca Francaviglia** École Polytechnique Fédérale de Lausanne, Switzerland *Self-assembled quantum-dots in nanowires: from self-formation mechanisms to emission engineering*
P2.14	**Nebile Isik Goktas** McMaster University, Canada *Study of doping incorporation in self-assisted GaAs nanowires*
P2.15	**Felix Jekat** II. Institute of Physics B, RWTH Aachen University, Germany *Designing a charge detector for a single electron counting scanning tunneling microscope and quantum point contact transport measurements in indium arsenide nanowires*
P2.16	**Andrew Meng** Stanford University, USA *Surface defect passivation of silicon micro pillars*
P2.17	**Dingding Ren** Norwegian University of Science and Technology, Norway *Crystal phase mapping in nanowires by scanning electron diffraction*

P2.18	**Anna Sitek** Reykjavik University, Iceland *Excitons confined in prismatic shells*
P2.19	**Neimantas Vainorius** Solid State Physics and NanoLund, Lund University, Sweden *Temperature-dependent electronic structure of wurtzite GaAs nanowires studied by resonant Raman scattering spectroscopy*
P2.20	**Mingze Yang** Simon Fraser University, Canada *Spatial oscillations in the EBIC signal from GaAs/Fe core-shell NW diodes*
P2.21	**Naoki Fukata** National Institute for Materials Science (NIMS), Japan *Control of hole gas accumulation in selectively doped Ge/Si and Si/Ge core-shell nanowires*
P2.22	**Jakub Płachta** Institute of Physics, Polish Academy of Sciences, Poland *Activation of luminescence from wurtzite CdTe nanowires*
P2.23	**Yu Liu** Niels Bohr Institute, University of Copenhagen *Tri-crystal hybrid epitaxy of semiconductor - ferromagnetic insulator - superconductors*
P2.24	**Sergej Schuwalow** Niels Bohr Institute, University of Copenhagen *Direct probing of the hybrid band structure of InAs/Al and InSb/Al nanostructures*
P2.25	**Tomáš Musálek** Brno University of Technology, Czech Republic *Si dopant incorporation in MBE-grown InAs nanowires*
P2.26	**Sudhakar Sivakumar** Lund University, Sweden *Exploring dopant incorporation in GaAsP nanowires grown by Aerotaxy*
P2.27	**Curtis Goosney** McMaster University, Canada *InSb nanowire fabrication for application in multispectral photodetectors*

P2.28	**Dong Pan** State Key Laboratory of Superlattices and Microstructures, Institute of Semiconductors, Chinese Academy of Sciences, China *Large composition range high-quality $InAs_{1-x}Sb_x$ nanowires grown on Si substrates by molecular-beam epitaxy*
P2.29	**Tomáš Pejchal** Central European Institute of Technology – CEITEC, Czech Republic *Bimetallic catalysts for MBE-grown Ge nanowires*

Thursday, June 14, 2018

14:40 – 16:40 Poster Session P3

P3.1	**Kris Bertness** National Institute of Standards and Technology, USA *AlGaN/GaN core-shell heterostructures for nanowire UV LEDs*
P3.2	**Vladislav Khayrudinov** Aalto University, Finland *III-V nanowires on black silicon for broadband absorption and optoelectronics*
P3.3	**Masato Takiguchi** NTT Basic Research Laboratories, Japan *Gb/s direct modulation of a single InP/InAs nanowire light emitting diode at telecom-band*
P3.4	**Francesco Rossella** NEST, Scuola Normale Superiore and Istituto Nanoscienze-CNR, Italy *Electronic transport at high magnetic fields in broken-gap nanowire heterostructures*
P3.5	**Fanny Morisot** LMGP/IMEP-LaHC, France *Effect of passivation on two-dimensional randomly oriented ZnO nanowire networks for the electrical detection of acetone*

P3.6	**Naoki Fukata** National Institute for Materials Science, Japan *Realizing high efficiency hybrid silicon nanowire/PEDOT:PSS heterojunction solar cells via surface treatment*
P3.7	**Yunlong Zhao** Harvard University, USA *Deterministic assembly and fabrication of ultrasmall nanowire 3D transistor probes for intracellular neural and cardiac recording*
P3.8	**Eduardo Barrera** University of Waterloo, Canada *Integrated III-V/Si visible and IR photodetectors*
P3.9	**Luca Boarino** Istituto Nazionale di Ricerca Metrologica, Italy *Resistive switching in Ag/single ZnO nanowire/Pt devices*
P3.10	**Irene Goldthorpe** University of Waterloo, Canada *Silver nanowires for flexible transparent electrodes and e-textiles*
P3.11	**Anna Sitek** Reykjavik University, Iceland *Anisotropic conductance of prismatic core-shell nanowires in transverse magnetic fields*
P3.12	**Junichi Motohisa** Hokkaido University, Japan *Study on emission mechanisms in InP-based nanowire LEDs*
P3.13	**Julien Francois** C2N-CNRS, Université Paris Sud, France *Multi-scale electrical characterization of single core/shell NWs containing GaAs or AlGaAs radial junction on Si(111) for photovoltaics*
P3.14	**Marco Vettori** Lyon Institute of Nanotechnology, France *GaAs/AlGaAs core/shell nanowires on Si substrates for photovoltaics: toward an optimized tandem solar cell*
P3.15	**Étienne Bouthillier** Polytechnique Montreal, Canada *Light absorption engineering in GeSn nanowires*

P3.16	**Jianjin Dong** University of Waterloo, Canada *Large-area cost-effective nanowire alignment*
P3.17	**Jonathan Atkinson** University of Waterloo, Canada *The near-infrared properties of silver nanowire films and their use as electrodes in smart windows*
P3.18	**Moritz Cygorek** University of Ottawa, Canada *Atomistic theory of electronic and optical properties of wurtzite InP nanowires with InAs quantum dots*
P3.19	**Natascia De Leo** INRiM Istituto Nazionale di Ricerca Metrologica, Italy *Long-range ordered flexible gold-coated silicon nanowires for SERS*
P3.20	**Hironori Gamo** Hokkaido University, Japan *Vertical FETs using pulse-doped InAs nanowires on Si*
P3.21	**Ara Ghukasyan** McMaster University, Canada *Potential for enhanced thermoelectric conversion efficiency in III-V semiconductor nanowire arrays*
P3.22	**Henrik Mantynen** Aalto University, Finland *Resonance-domain diffractive optics with semiconductor nanowire arrays*
P3.23	**Thuy Nguyen** Université Grenoble Alpes, CNRS, Grenoble INP, LMGP, France *Silicon nanonet: from nanostructured material to macroscale functional devices for sensing applications*
P3.24	**Kyle Robertson** University of Ottawa, Canada *Feasibility of rigorous coupled wave analysis for optical modeling of nanowires*

P3.25	**Mitchell Robson** McMaster University, Canada *Multispectral infrared photodetection in III-V nanowires*
P3.26	**Julien Francois** Centre de Nanosciences et de Nanotechnologies(C2N), University Paris-Saclay, France *Piezogeneration exploration of MBE and MOCVD GaN-nanowire-based devices*
P3.27	**Chunyi Huang** Northwestern University, USA *Tomographic composition analysis of InGaAs nanowires on GaAs nanomembranes*
P3.28	**Reza Zamani** Solid State Physics, Lund University, Sweden *Understanding electronic and structural properties of III-V heterostructure nanowires through advanced electron microscopy studies*
P3.29	**Yuri Pusep** IFSC/USP, Brazil *Manipulation of emission energy in GaAs/AlGaAs core-shell nanowires with radial heterostructure*