

Ultrafast Phenomena and Nanophotonics XXIII

Sunday - Wednesday 3 - 6 February 2019

Conference Sessions At A Glance

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1: Ultrafast Nanoplasmonics
 2: Strong-Field THz Physics and Ultrafast Switching
 3: Ultrafast Phenomena in 2D Materials
 4: Coherent and Nonlinear Dynamics of Optical Excitations
 OPTO Plenary Session
 5: Ultrafast Spectroscopy
 6: Electron Spectroscopy, Emission, and Transport
 7: Ultrafast Spectroscopy of Monolayers and 2D Materials
 8: Nonlinear Optical Effects
 9: Ultrafast Spin Dynamics and Manipulation
 10: Terahertz Spectroscopy I
 11: Femtosecond Light-Matter Interaction
 12: Ultrafast Processes in Monolayer Semiconductors, Graphene, and Perovskites
 13: Ultrafast Phononics and Plasmonics
 14: Terahertz Spectroscopy II
 Posters-Wednesday

Important Dates

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Abstract Due:
25 July 2018

Author Notification:
1 October 2018

Manuscript Due Date:
9 January 2019

Conference Committee

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Conference Chairs

[Markus Betz](#), Technische Univ. Dortmund (Germany)
[Abdulhakem Y. Elezzabi](#), Univ. of Alberta (Canada)

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SUNDAY 3 FEBRUARY

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Session 1: Ultrafast Nanoplasmonics


Sunday 3 February 2019
 8:30 AM - 10:15 AM

Session Chair: [Abdulhakem Y. Elezzabi](#), Univ. of Alberta (Canada)

Clocking plasmonic nanofocusing and sampling nearfield waveforms via terahertz-streaking-spectroscopy (Invited Paper)

Paper 10916-1


Author(s): Georg Herink, Univ. Bayreuth (Germany)

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Vibrational coupling in plasmonic molecules (Invited Paper)

Paper 10916-2


Author(s): Stephan Link, Rice Univ. (United States)

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Ultrannarrow second-harmonic resonances in hybrid plasmon-fiber cavities (Invited Paper)

Paper 10916-3


Author(s): Harald Giessen, Qi Ai, Lili Gui, Univ. Stuttgart (Germany)

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Nonlinearities in silicon-based nanoplasmonic waveguides

Paper 10916-4

Author(s): Curtis J. Firby, Abdulhakem Y. Elezzabi, Univ. of Alberta (Canada)

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Session 2: Strong-Field THz Physics and Ultrafast Switching

Sunday 3 February 2019


10:45 AM - 12:30 PM

Session Chair: [Markus Betz](#), Technische Univ. Dortmund (Germany)

Terahertz strong-field physics without a strong field (Invited Paper)

Paper 10916-5


Author(s): Junichiro Kono, Rice Univ. (United States)

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Strong-field terahertz control of charge, spin, and valley pseudospin (Invited Paper)

Paper 10916-6


Author(s): Rupert Huber, Univ. Regensburg (Germany)

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Nonreciprocal terahertz optical phenomena with spins and plasma waves (Invited Paper)

Paper 10916-7


Author(s): Diyar Talbayev, Tulane Univ. (United States)

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Ultra-strong coupling in a THz Fabry-Perot cavity

Paper 10916-8

Author(s): Elena Mavrona, Felice Appugliese, Johan Andberger, Shima Rajabali, Mattias Beck, Giacomo Scalari, Jérôme Faist, ETH Zurich (Switzerland)

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Lunch Break 12:30 PM - 1:45 PM

Session 3: Ultrafast Phenomena in 2D Materials

Sunday 3 February 2019


1:45 PM - 3:30 PM

Session Chair: [Rupert Huber](#), Univ. Regensburg (Germany)

Cavity polaritons with atomically thin semiconductors (Invited Paper)

Paper 10916-9


Author(s): A. Nick Vamivakas, Univ. of Rochester (United States)

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Probing spin and valley dynamics in 2D semiconductors (Invited Paper)

Paper 10916-10


Author(s): Luyi Yang, Univ. of Toronto (Canada), Tsinghua Univ. (China)

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Exciton dynamics in atomically thin semiconductors: optical lineshape, intervalley coupling, and luminescence dynamics (Invited Paper)

Paper 10916-11


Author(s): Andreas Knorr, Malte Selig, Dominik Christiansen, Technische Univ. Berlin (Germany); Ermin Malic, Chalmers Univ. of Technology (Sweden); Florian Katsch, Technische Univ. Berlin (Germany); Gunnar Berghäuser, Chalmers Univ. of Technology (Sweden)

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Experimental observation of chiral phonons in monolayer WSe₂ (Invited Paper)

Paper 10916-12

Author(s): Hanyu Zhu, Rice Univ. (United States); Jun Yi, Univ. of California, Berkeley (United States); Ming-Yang Li, King Abdullah Univ. of Science and Technology (Saudi Arabia); Jun Xiao, Univ. of California, Berkeley (United States); Lifa Zhang, Nanjing Normal Univ. (China); Chih-Wen Yang, King Abdullah Univ. of Science and Technology (Saudi Arabia); Robert A. Kaindl, Lawrence Berkeley National Lab. (United States); Lain-Jong Li, King Abdullah Univ. of Science and Technology (Saudi Arabia); Yuan Wang, Xiang Zhang, Univ. of California, Berkeley (United States)

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Session 4: Coherent and Nonlinear Dynamics of Optical Excitations


Sunday 3 February 2019
4:00 PM - 6:15 PM

Session Chair: Andreas Knorr, Technische Univ. Berlin (Germany)

Observing long-lived nonradiative electronic states in silicon-vacancy centers in diamond using optical multidimensional coherent spectroscopy *(Invited Paper)*

Paper 10916-13


Author(s): Christopher Smallwood, San José State Univ. (United States), Univ. of Michigan (United States); Ronald Ulbricht, Nanyang Technological Univ. (Singapore); Matthew W. Day, Univ. of Michigan (United States); Tim Schröder, Massachusetts Institute of Technology (United States); Kelsey M. Bates, Univ. of Michigan (United States); Travis M. Autry, National Institute of Standards and Technology (United States); Geoffrey Diederich, Univ. of Denver (United States); Edward Bielejec, Sandia National Labs. (United States); Mark E. Siemens, Univ. of Denver (United States); Steven T. Cundiff, Univ. of Michigan (United States)

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Coherent dynamics in the excitonic insulator Ta_2NiSe_5 *(Invited Paper)*

Paper 10916-14


Author(s): Stefan Kaiser, Max-Planck-Institut für Festkörperforschung (Germany)

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Discovery and room-temperature ultrafast exciton control of strongly bound excitons in anatase TiO_2 *(Invited Paper)*

Paper 10916-15


Author(s): Edoardo Baldini, Massachusetts Institute of Technology (United States)

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Photon echo generation using chirped pulses in quantum dots

Paper 10916-16


Author(s): Masanari Watanabe, Naoto Aonuma, Keio Univ. (Japan); Kouichi Akahane, National Institute of Information and Communications Technology (Japan); Junko Ishi-Hayase, Keio Univ. (Japan)

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Measuring coherent dynamics in cuprate superconductors with multidimensional coherent spectroscopy

Paper 10916-17


Author(s): Fabio Novelli, Jonathan Tollerud, Jeffrey Davis, Swinburne Univ. of Technology (Australia)

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Generation of single-photon and two-photon pulses from a quantum two-level system

Paper 10916-18

Author(s): Lukas Hanschke, Walter Schottky Institut, Technische Univ. München (Germany); Kevin A. Fischer, Stanford Univ. (United States); Jakob Wierzbowski, Stefan Appel, Walter Schottky Institut, Technische Univ. München (Germany); Daniil Lukin, Shuo Sun, Rahul Trivedi, Stanford Univ. (United States); Malte Kremser, Tobias Simmet, Walter Schottky Institut, Technische Univ. München (Germany); Constantin Dory, Jelena Vuckovic, Stanford Univ. (United States); Jonathan J. Finley, Kai Müller, Walter Schottky Institut, Technische Univ. München (Germany)

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MONDAY 4 FEBRUARY

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OPTO Plenary Session

Monday 4 February 2019
8:00 AM - 10:05 AM


8:00 am: **Welcome and Opening Remarks**

Connie J. Chang-Hasnain, Univ. of California, Berkeley (United States); **Graham T. Reed**, Optoelectronics Research Ctr. (United Kingdom)

Hyperscale data center applications of optoelectronics *(Plenary Presentation)*

Paper 10946-201


Author(s): Katharine Schmidtke, Facebook Inc. (United States)

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Two decades of progress for photonic crystals: from the realization of complete 3D crystals to the state of the art for society 5.0 *(Plenary Presentation)*

Paper 10927-202


Author(s): Susumu Noda, Kyoto Univ. Graduate School of Engineering (Japan)

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Deep-learning optics *(Plenary Presentation)*

Paper 10937-203

Author(s): Aydogan Ozcan, California NanoSystems Institute (United States), Univ. of California, Los Angeles (United States)

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Session 5: Ultrafast Spectroscopy


Monday 4 February 2019
10:30 AM - 12:15 PM

Session Chair: Jeff Davis, Swinburne Univ. of Technology (Australia)

Attosecond field-driven dynamics in diamond, GaAs, and Ti-metal *(Invited Paper)*

Paper 10916-19


Author(s): Ursula Keller, ETH Zurich (Switzerland)

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Femtosecond radiative decay of two excitons coupled via radiation-induced interaction in ZnO thin films

Paper 10916-20


Author(s): Masayoshi Ichimiya, Univ. of Shiga Prefecture (Japan), Osaka Univ. (Japan); Takuya Matsuda, Takashi Kinoshita, Osaka Prefecture Univ. (Japan); Masaaki Nakayama, Osaka City Univ. (Japan); Hajime Ishihara, Osaka Univ. (Japan), Osaka Prefecture Univ. (Japan); Masaaki Ashida, Osaka Univ. (Japan)

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Ultrafast spectroscopy of vibrational polaritons: dynamics and photonics

Paper 10916-21


Author(s): Jeffrey C. Owrutsky, Adam D. Dunkelberger, Andrea B. Grafton, Kenan P. Fears, Roderick B. Davidson, Wonmi Ahn, Blake S. Simpkins, U.S. Naval Research Lab. (United States)

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Efficient intraband hot carrier relaxation in the perovskite semiconductor $\text{Cs}_{1-x}\text{Rb}_x\text{SnI}_3$ mediated by strong electron-phonon coupling

Paper 10916-22


Author(s): Maurizio Monti, The Univ. of Warwick (United Kingdom); Shuxia Tao, Technische Univ. Eindhoven (Netherlands); Michael Staniforth, Adam Crocker, Edward Griffin, Anjana Wijesekara, Ross A. Hatton, James Lloyd-Hughes, The Univ. of Warwick (United Kingdom)

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Coupling of a terahertz-cavity to a carbon nanotube quantum dot

Paper 10916-23


Author(s): Federico Valmorra, Lab. Pierre Aigrain (France), CNRS (France); Kenji Yoshida, Institute of Industrial Science, The Univ. of Tokyo (Japan); Lauriane Contamin, Tino Cubaynes, Matthieu Dartailh, Matthieu Desjardins, Sylvain Massabeau, Lab. Pierre Aigrain (France); Kazuhiko Hirakawa, Institute of Industrial Science, The Univ. of Tokyo (Japan); Sebastien Balibar, Juliette Mangeney, Audrey Cottet, Takis Kontos, Lab. Pierre Aigrain (France)

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Microscopic simulations of multi-photon absorption and stimulated emission in semiconductors within a two-band model

Paper 10916-24

Author(s): Wolf-Rüdiger Hannes, Torsten Meier, Univ. Paderborn (Germany)

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Lunch Break 12:15 PM - 1:30 PM

Session 6: Electron Spectroscopy, Emission, and Transport


Monday 4 February 2019
1:30 PM - 3:15 PM

Session Chair: [Torsten Meier](#), Univ. Paderborn (Germany)

Single-cycle autocorrelation in attosecond coherent nanotransport *(Invited Paper)*

Paper 10916-25


Author(s): Daniele Brida, Univ. Konstanz (Germany), Univ. du Luxembourg (Luxembourg)

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Ultrafast nanoscale dynamics probed by time-resolved transmission electron microscopy *(Invited Paper)*

Paper 10916-26


Author(s): Sascha Schäfer, Carl von Ossietzky Univ. Oldenburg (Germany)

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Femtosecond on-chip electronics based on plasmonic hot electron nano-emitters *(Invited Paper)*

Paper 10916-27


Author(s): Alexander Holleitner, Walter Schottky Institut, Technische Univ. München (Germany)

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Quantum interference of surface plasmon polariton and photon-induced electron emission in photo-emission electron microscopy

Paper 10916-28

Author(s): Pascal Dreher, David Janoschka, Frank J. Meyer zu Heringdorf, Univ. Duisburg-Essen (Germany), Ctr. for Nanointegration Duisburg-Essen (Germany)

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Session 7: Ultrafast Spectroscopy of Monolayers and 2D Materials


Monday 4 February 2019
3:45 PM - 5:30 PM

Session Chair: Daniele Brida, Univ. Konstanz (Germany)

Carrier cooling and multiplication in semiconductor nanocrystals and superlattices *(Invited Paper)*

Paper 10916-29


Author(s): Laurens D. A. Siebbeles, Technische Univ. Delft (Netherlands)

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Polaronic effects in excitonic correlations in two-dimensional metal-halide perovskites *(Invited Paper)*

Paper 10916-30


Author(s): Carlos Silva, Ajay R. Srimath Kandada, Félix Thouin, Georgia Institute of Technology (United States)

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Plasmon mediated light-matter interaction in MoS₂ monolayers *(Invited Paper)*

Paper 10916-31


Author(s): Parinda Vasa, Indian Institute of Technology Bombay (India)

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Spectroscopy of site-selectively generated quantum emitters in WSe₂

Paper 10916-32

Author(s): Malte Kremser, Janine Gückelhorn, Jakob Wierzbowski, Florian Sigger, Julian Klein, Michael Kaniber, Kai Müller, Jonathan J. Finley, Walter Schottky Institut, Technische Univ. München (Germany)

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TUESDAY 5 FEBRUARY

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Session 8: Nonlinear Optical Effects


Tuesday 5 February 2019
8:15 AM - 10:15 AM

Session Chair: Parinda Vasa, Indian Institute of Technology Bombay (India)

Femtosecond covariance spectroscopy *(Invited Paper)*

Paper 10916-33


Author(s): Daniele Fausti, Univ. degli Studi di Trieste (Italy)

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Optoelectronic properties of tin- and lead-based hybrid metal halide perovskites *(Invited Paper)*

Paper 10916-34


Author(s): Rebecca L. Milot, The Univ. of Warwick (United Kingdom), Univ. of Oxford (United Kingdom); Michael B. Johnston, Laura M. Herz, Univ. of Oxford (United Kingdom)

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Nonlinear Fresnel coefficients due to giant ultrafast nonlinearities in indium tin oxide

Paper 10916-35


Author(s): Sepehr Benis, CREOL, The College of Optics and Photonics, Univ. of Central Florida (United States); Natalia Munera, CREOL, The College of Optics and Photonics, Univ. of Central Florida (United States), Univ. Nacional de Colombia Sede Medellín (Colombia); Rodrigo Acuña, Univ. Nacional de Colombia Sede Medellín (Colombia); David J. Hagan, Eric W. Van Stryland, CREOL, The College of Optics and Photonics, Univ. of Central Florida (United States)

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Transient charge separation in centro-symmetric media by magneto-optic nonlinearities

Paper 10916-36


Author(s): Minh Tuan Trinh, Krishnandu Makhhal, Ayesheshim Ayesheshim, Stephen Rand, Univ. of Michigan (United States)

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Second harmonic generation in photonic CdSiP₂ waveguides and plasmonic LiNbO₃ waveguides in the visible spectral regime

Paper 10916-37


Author(s): Brett N. Carnio, Univ. of Alberta (Canada)

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Extremely nondegenerate two-photon absorption in silicon

Paper 10916-38

Author(s): Nicholas Cox, David J. Hagan, Eric W. Van Stryland, CREOL, The College of Optics and Photonics, Univ. of Central Florida (United States)

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Session 9: Ultrafast Spin Dynamics and Manipulation


Tuesday 5 February 2019
10:45 AM - 12:15 PM

Session Chair: Daniele Fausti, Univ. degli Studi di Trieste (Italy)

Dynamical formation and manipulation of persistent spin helices in GaAs and CdTe quantum wells (*Invited Paper*)

Paper 10916-39


Author(s): Markus Betz, Technische Univ. Dortmund (Germany)

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Giant ultrafast spin injection and spin-to-charge conversion in topological materials (*Invited Paper*)

Paper 10916-40


Author(s): Elbert Chia, Nanyang Technological Univ. (Singapore)

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Dephasing dynamics of electron and hole spin qubits in self-assembled quantum dots

Paper 10916-41


Author(s): William Rauhaus, Tobias Simmet, Friedrich Sbresny, Malte Kremser, Walter Schottky Institut, Technische Univ. München (Germany); Fuxiang Li, Nikolai Sinitsyn, Los Alamos National Lab. (United States); Kai Müller, Jonathan J. Finley, Walter Schottky Institut, Technische Univ. München (Germany)

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High beta factors and directional coupling of InAs/GaAs quantum dots to photonic crystal waveguides determined by direct spectral imaging

Paper 10916-42

Author(s): Lorenzo Scarpelli, Cardiff Univ. (United Kingdom); Ben Lang, Univ. of Bristol (United Kingdom); Francesco Masia, Daryll Beggs, Cardiff Univ. (United Kingdom); Andrew B. Young, Ruth Oulton, Univ. of Bristol (United Kingdom); Christian Schneider, Sven Höfling, Julius-Maximilians-Univ. Würzburg (Germany); Egor Muljarov, Wolfgang Langbein, Cardiff Univ. (United Kingdom)

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Lunch/Exhibition Break 12:15 PM - 1:45 PM

Session 10: Terahertz Spectroscopy I


Tuesday 5 February 2019
1:45 PM - 3:30 PM

Session Chair: [Markus Betz](#), Technische Univ. Dortmund (Germany)

THz light quantum tuning: from Cooper pairs to Dirac fermions (*Invited Paper*)

Paper 10916-43


Author(s): Jigang Wang, Iowa State Univ. of Science and Technology (United States)

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Tunable phase-locked terahertz source using hollow-core photonic crystal fiber (*Invited Paper*)

Paper 10916-44


Author(s): Wei Cui, Aidan W. Schiff-Kearn, Emily Zhang, Nicolas Couture, Univ. of Ottawa (Canada), Max Planck-uOttawa Ctr. for Extreme and Quantum Photonics (Canada); Francesco Tani, David N'ová, Philip St. J. Russell, Max-Planck-Institut für die Physik des Lichts (Germany), Max Planck-uOttawa Ctr. for Extreme and Quantum Photonics (Canada); Jean-Michel Ménard, Univ. of Ottawa (Canada), Max Planck-uOttawa Ctr. for Extreme and Quantum Photonics (Canada)

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Terahertz rectification in macroscopic rings of quantum barriers with no inversion symmetry

Paper 10916-45


Author(s): Dai-Sik Kim, Taehee Kang, R.H. Joon-Yeon Kim, Geunchang Choi, Jaiu Lee, Seoul National Univ. (Korea, Republic of); Hyunwoo Park, Hyeongtag Jeon, Hanyang Univ. (Korea, Republic of); Cheol-Hwan Park, Seoul National Univ. (Korea, Republic of)

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Terahertz tunable refractive index matching (TTRIM) solution

Paper 10916-46


Author(s): Elena Mavrona, Felice Appugliese, Janine Keller, Giacomo Scalari, Jérôme Faist, ETH Zurich (Switzerland)

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High conversion efficiency terahertz generation using antenna-coupled silicon integrated Ge photodiodes

Paper 10916-47

Author(s): Lei Zhang, IMEC USA - Florida (United States)

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Session 11: Femtosecond Light-Matter Interaction


Tuesday 5 February 2019
4:00 PM - 5:45 PM

Session Chair: [Jean-Michel Ménard](#), Univ. of Ottawa (Canada)

Fundamentals aspects of ultrafast laser irradiation of colloidal plasmonic nanoparticles *(Invited Paper)*

Paper 10916-48

Author(s): Michel Meunier, Ecole Polytechnique de Montréal (Canada)

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Organic nano actuator for cell opto stimulation *(Invited Paper)*

Paper 10916-49

Author(s): Guglielmo Lanzani, Politecnico di Milano (Italy), Istituto Italiano di Tecnologia (Italy)



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Photo-atomic layer etching: an innovative tool for diagnostics and nanostructuring of quantum semiconductors *(Invited Paper)*

Paper 10916-50


Author(s): Jan J. Dubowski, Univ. de Sherbrooke (Canada)

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Ultrafast optical pulse shaping using dielectric metasurfaces

Paper 10916-51

Author(s): Amit Kumar Agrawal, Shawn Divitt, Wenqi Zhu, Cheng Zhang, Henri J. Lezec, National Institute of Standards and Technology (United States)

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WEDNESDAY 6 FEBRUARY

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Session 12: Ultrafast Processes in Monolayer Semiconductors, Graphene, and Perovskites


Wednesday 6 February 2019
8:30 AM - 10:00 AM

Session Chair: Natalia Del Fatti, Univ. Claude Bernard Lyon 1 (France)

Investigation of ultrafast carrier dynamics with femtosecond photocurrent detection in graphene and 2D layered materials *(Invited Paper)*

Paper 10916-52


Author(s): Yeong-Hwan Ahn, Byung-Hee Son, Young-Chul Kim, Ajou Univ. (Korea, Republic of)

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Ultrafast tectonics in nanocrystalline graphene *(Invited Paper)*

Paper 10916-53


Author(s): Silvio Morgenstern, Arne Senfleben, Christian Gerbig, Marlene Adrian, Thomas Baumert, Univ. Kassel (Germany)

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Switching between excitonic emission and carrier depletion by surface defects in inorganic lead halide perovskites *(Invited Paper)*

Paper 10916-54

Author(s): Handong Sun, Nanyang Technological Univ. (Singapore)

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Session 13: Ultrafast Phononics and Plasmonics


Wednesday 6 February 2019
10:30 AM - 12:30 PM

Session Chair: Arne Senfleben, Univ. Kassel (Germany)

Ultrafast mechanical and thermal energy transfer investigations on single metal nano-objects *(Invited Paper)*

Paper 10916-55


Author(s): Natalia Del Fatti, Fabio Medeghini, Aurélien Crut, Univ. Claude Bernard Lyon 1 (France); Marco Gandolfi, Univ. Cattolica del Sacro Cuore (Italy), KU Leuven (Belgium); Paolo Maioli, Univ. Claude Bernard Lyon 1 (France); Francesco Rossella, Scuola Normale Superiore (Italy), Consiglio Nazionale delle Ricerche (Italy); Francesco Banfi, Univ. Cattolica del Sacro Cuore (Italy), Univ. Claude Bernard Lyon 1 (France); Fabrice Vallee, CNRS (France)

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Optomechanical engineering: manipulating light and vibrations in the GHz regime *(Invited Paper)*

Paper 10916-56

Author(s): Daniel Lanzillotti-Kimura, CNRS (France)


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Strong coupling and induced transparency with single quantum dots and plasmons: Towards ultrafast all-optical modulation at the nanoscale

(Invited Paper)

Paper 10916-57


Author(s): Matthew A. Pelton, Univ. of Maryland, Baltimore County (United States)

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Overcoming the hot phonon bottleneck in graphene

Paper 10916-58


Author(s): Andrey Baydin, Rustam Gatamov, Halina Krzyzanowska, Norman Tolk, Vanderbilt Univ. (United States)

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Plasmonic ferroelectric tunnel junction

Paper 10916-59

Author(s): Shawn R. Greig, Abdulkhem Y. Elezzabi, Univ. of Alberta (Canada)

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Lunch/Exhibition Break 12:30 PM - 2:00 PM

Session 14: Terahertz Spectroscopy II

Wednesday 6 February 2019


2:00 PM - 3:45 PM

Session Chair: [Abdulkhem Y. Elezzabi](#), Univ. of Alberta (Canada)

Terahertz nonlinear physics of graphene: from saturable absorption to higher harmonics generation *(Invited Paper)*

Paper 10916-60


Author(s): Dmitry Turchinovich, Univ. Duisburg-Essen (Germany)

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Plasmonic metasurfaces for high-speed thermal photodetection *(Invited Paper)*

Paper 10916-61


Author(s): Maiken H. Mikkelsen, Duke Univ. (United States)

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Direct field correlation measurements on THz modes with sub-unity photon occupation number

Paper 10916-62


Author(s): Ileana-Cristina Benea-Chelmus, Francesca Fabiana Settembrini, Giacomo Scalari, Jérôme Faist, ETH Zurich (Switzerland)

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Coherent oscillations in the THz response of single crystal methylammonium lead triiodide

Paper 10916-63


Author(s): Yang Lan, McGill Univ. (Canada); Carlito S. Ponce, Lund Univ. (Sweden); Benjamin Dringoli, Mark Sutton, McGill Univ. (Canada); Yihui He, Mercuri G. Kanatzidis, Northwestern Univ. (United States); David G. Cooke, McGill Univ. (Canada)

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Direct amplitude and phase control of THz waveform in a waveguide

Paper 10916-64

Author(s): Lauren Gingras, McGill Univ. (Canada)

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Session PWed: Posters-Wednesday

Wednesday 6 February 2019


6:00 PM - 8:00 PM

Conference attendees are invited to attend the OPTO poster session on Wednesday evening. 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/PWPPosterGuidelines>.

Ultrafast electron cold field emission from a tungsten nanotip by intense single cycle THz pulses

Paper 10916-65


Author(s): Dominique Matte, Lauren Gingras, Mark Sutton, Bradley J. Siwick, David G. Cooke, McGill Univ. (Canada)

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Wavelength-resolved pump-probe transient reflectometry for optoelectronic device characterization


Paper 10916-66

Author(s): Hemang Jani, Lingze Duan, The Univ. of Alabama in Huntsville (United States)

[Add To My Schedule](#) **Dual-comb-based asynchronous optical sampling to evaluate transient response of quantum dots**

Paper 10916-67

Author(s): Tomohito Saito, Keio Univ. (Japan); Akifumi Asahara, The Univ. of Electro-Communications (Japan), Japan Science and Technology Agency (Japan); Kouichi Akahane, National Institute of Information and Communications Technology (Japan); Kaoru Minoshima, The Univ. of Electro-Communications (Japan), Japan Science and Technology Agency (Japan); Junko Ishi-Hayase, Keio Univ. (Japan)

[Add To My Schedule](#) **Temporal dynamics of entangled photon-pair generated from multi-level atomic systems**

Paper 10916-68

Author(s): Kwang Jun Ahn, Dong-Il Yeom, Ajou Univ. (Korea, Republic of)

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