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Mario Bertolotti
Alexei M. Zheltikov
Editors

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Contents

vii	<i>Authors</i>
ix	<i>Conference Committee</i>
xi	<i>Introduction</i>

SESSION 1 FEMTOSECONDS

11026 03	Subcycle pulses in the mid-infrared: ultrafast ionization dynamics in solids (Invited Paper) [11026-1]
11026 04	Flexible control of nonlinear processes under femtosecond filamentation using adjustable high-pressure gases and supercritical fluids [11026-2]
11026 06	Photoacoustic and optical imaging of the femtosecond filament in water [11026-4]
11026 07	Supercontinuum enhancement using Bragg solitons on a CMOS-compatible chip (Best Student Paper Award) [11026-5]

SESSION 2 CHIRALITY AND SYMMETRIES

11026 08	Nonlinear optics in chiral materials (Invited Paper) [11026-6]
11026 09	Enhancing nonlinear processes from dielectric nanoantennas: the role of the substrate [11026-8]
11026 0A	Switching in the PT-symmetric nonlinear periodic structures [11026-9]
11026 0B	Optical activity of chiral semiconductor gammadions [11026-10]

SESSION 3 NONLINEAR MATERIALS AND THZ: SPECIAL SESSION HONORING PROF. JOSEPH W. HAUS

11026 0D	Optical limiting behavior of single-walled carbon nanotubes in water dispersion at different concentrations [11026-12]
11026 0E	Two-photon-activated light energy conversion in quantum dot–purple membrane hybrid material [11026-13]
11026 0G	The effect of a waveguide on the formation of optical terahertz solitons [11026-15]

- 11026 0I **Theoretical investigation of terahertz generation from two-color laser pulse ionized gases: the role of the thickness of the nonlinear crystal [11026-17]**

SESSION 4 NONLINEAR EFFECTS

- 11026 0L **Two-component few-cycle light bullets in a gradient waveguide with quadratic nonlinearity [11026-20]**
- 11026 0M **Vortex light bullets forming at second harmonic generation [11026-21]**

SESSION 5 PLASMONICS AND SHG

- 11026 0O **Surface and bulk harmonic generation in the opaque region of GaAs [11026-24]**
- 11026 0Q **Multibound solitons generation with a controllable number of bound states in a passive mode-locked all-fiber erbium-doped ring laser [11026-25]**

SESSION 6 NONLINEARITIES IN QUANTUM SYSTEMS AND APPLICATIONS

- 11026 0S **Quantum spin Hall effect in bound states in continuum (Invited Paper) [11026-27]**
- 11026 0T **Slide-free histopathological imaging of hematoxylin-eosin-stained whole mount tissues using Cr:forsterite laser-based nonlinear microscopy [11026-29]**
- 11026 0U **Self-written net waveguides using photopolymer media [11026-30]**
- 11026 0V **Role of deposited energy density and impact ionization in the process of femtosecond laser-matter interaction in solids: scaling from visible to mid-IR wavelength [11026-31]**
- 11026 0W **Features of laser cooling of Yb-doped fluorite nanocrystals using coherent population transfer techniques [11026-32]**

POSTER SESSION

- 11026 0X **Laser-induced shockwave crystallization of nitrates [11026-34]**
- 11026 0Y **Vibration interaction between chitosan molecules and ablative silver and gold nanoparticles [11026-35]**
- 11026 0Z **Linear and nonlinear chiro-optical properties of carvone molecule mirror-image configurations [11026-36]**

- 11026 10 **Towards analytical description of intense short pulses propagating in a gas-filled hollow-core photonic crystal fiber** [11026-37]
- 11026 11 **THz generation from mid-infrared two-color laser pulses in air and a simple method for controlling the THz intensity** [11026-38]
- 11026 12 **Resonant and non-resonant interaction of semiconductor quantum dots with plasmons localized in silver and zinc nanoparticles** [11026-39]
- 11026 13 **Generation of Raman solitons with minimal losses for dispersion radiation due to longitudinally nonuniform fiber** [11026-40]
- 11026 14 **Spatio-temporal light bullet formation from the laser pulse propagating in the tunneling ionization regime** [11026-41]
- 11026 15 **Resonance energy transfer from quantum dots to bacteriorhodopsin affects the saturation of two-photon absorption under a pulsed femtosecond excitation** [11026-43]
- 11026 16 **Synchronously-pumped all-solid-state Raman lasers based on YVO₄ and GdVO₄ crystals with pulse shortening by higher than 30 times down to 850 fs** [11026-44]
- 11026 18 **Efficient synchronously-pumped all-solid-state SrWO₄ Raman laser at 1178 and 1227 nm on single and combined Raman modes with 26-fold pulse shortening down to 1.4 ps** [11026-46]
- 11026 19 **Anti-Stokes nanosecond cyan 503, 507, and 508 nm generation at tangential phase matching in extracavity parametric Raman lasers based on crystals with different birefringence** [11026-47]
- 11026 1A **Structuring of carbon nanotubes array under the action of pulsed laser radiation for nanoelectronics** [11026-48]
- 11026 1C **Piezoelectric resonance spectroscopy of a metal-dielectric heterostructure under laser irradiation** [11026-50]
- 11026 1D **A hybrid maximum power point tracking algorithm that uses the illumination and the temperature sensor in solar tracking systems** [11026-51]
- 11026 1E **Comparison of the maximum power point tracking algorithms with hybrid method that uses a light sensor in the real shading conditions** [11026-52]
- 11026 1F **Parity-time symmetric laminar-turbulent transition in coupled Raman fiber lasers** [11026-53]
- 11026 1G **Studying of filtering properties of SNAP microresonators on the surface of optical fibers** [11026-54]
- 11026 1H **Ultrasound laser-induced breakdown spectroscopy and acoustic spectroscopy of resonance inclusions in liquids** [11026-55]
- 11026 1I **Sampling strategy and product validation over nonuniform surface-based on TEM and CGM upscaling: A case study on LAI** [11026-56]

Authors

Numbers in the index correspond to the last two digits of the seven-digit citation identifier (CID) article numbering system used in Proceedings of SPIE. The first five digits reflect the volume number. Base 36 numbering is employed for the last two digits and indicates the order of articles within the volume. Numbers start with 00, 01, 02, 03, 04, 05, 06, 07, 08, 09, 0A, 0B...0Z, followed by 10-1Z, 20-2Z, etc.

Agafonova, Natalia O., 0D	Kiss, B., 11
Al-Basheer, Watheq, 0X, 0Z	Kitsyuk, E. P., 1A
Aljalal, Abdulaziz, 0X	Klotz, Emile, 1G
Baimuratov, Anvar S., 0B	Komissarova, Maria V., 0A, 0G, 0L, 0M
Baranov, Alexander V., 0B	Konyashkin, A. V., 1C
Bertolotti, Mario, 08	Korobko, Dmitry A., 13
Blanco-Redondo, Andrea, 07	Korolkov, A. E., 1C
Borzsonyi, A., 0l, 11	Krivenkov, V. A., 0E, 15
Bryukhanov, V. V., 0Y	Kubeček, Václav, 16, 18, 19
Bugay, Alexandr N., 10, 14	Kudelin, Igor S., 0Q
Bulanov, Alexey V., 1H	Kuksin, A. V., 1A
Bychkov, Anton, 06	Leonov, Mikhail Yu., 0B
Cabrini, Stefano, 0S	Li, Chuanrong, 11
Calafiore, Giuseppe, 0S	Liao, Yi-Hua, 0T
Carletti, L., 09	Ma, Lingling, 11
Cassidy, Derek, 0U	Makarenko, Maxim, 1F
Cherepetskaya, Elena, 06	Makarov, Vladimir, 06
Chikan, V., 0l, 11	Malallah, Ra'ed, 0U
Chistyakov, A. A., 15	Maraka, Harsha Vardhan R., 0U
Churkin, Dmitry V., 1F, 1G	Marchenko, Vladimir F., 0A
Cojocar, C., 0O	Mareev, Evgenii I., 04, 06, 0V
Darojat, Yusron, 0X	Migal, E. A., 04, 0V
De Angelis, C., 09	Minaev, N. V., 04
de Ceglia, D., 09	Mocella, Vito, 0S
De Luca, Anna Chiara, 0S	Mrocza, Janusz, 1D
Demin, M. V., 0Y	Mukhankov, D. M., 1C
Denisov, Lev K., 0Q	Muniraj, Inbarasan, 0U
Duchateau, G., 0V	Nabiev, I., 0E, 15
Dvoretzkiy, Dmitriy A., 0Q	Nagorny, Ivan G., 1H
Eggleton, Benjamin J., 07	Ng, Doris K. T., 07
Fast, Semen S., 1G	Orekhov, Ilya O., 0Q
Fedorov, Anatoly V., 0B	Ostrowski, Mariusz, 1D, 1E
Flender, R., 0l, 11	Pavlov, A. A., 1A
Fotiadi, Andrei A., 13	Penzo, Erika, 0S
Frank, Milan, 16, 18	Perlin, Evgeniy Y., 0W
Gasmi, Khaled, 0X	Pnev, Alexey B., 0Q
Gerasimenko, Alexander Yu., 0D, 1A	Png, Ching E., 07
Gordienko, V. M., 04	Potemkin, Fedor V., 04, 06, 0V
Gushchin, Maxim G., 12	R. Suñé, L., 0O
Han, Zhiyong, 1G	Rizvanova, Kristina M., 12
Ivanov, Andrei V., 0W	Rocco, D., 09
Ivleva, Lyudmila I., 18, 19	Romano, Silvia, 0S
Jelínek, Michal, 16, 18, 19	Rozhdestvensky, Yuri V., 0W
Kalinovich, Aleksey A., 0G, 0L, 0M	Rudy, Semyon S., 0W
Kamalieva, Aisylu N., 12	Rukhlenko, Ivan D., 0B
Kao, Chien-Ting, 0T	Rumiantsev, Boris, 06
Karabutov, Aleksandr, 06	Ryabushkin, O. A., 1C
Karasik, Valeriy E., 0Q	Ryazanov, R. M., 1A
Khalypin, Vyacheslav A., 10, 14	Sahin, Ezgi, 07

Samokhvalov, P. S., 0E, 15
 Samusev, I. G., 0Y
 Savelyev, Mikhail S., 0D, 1A
 Savichev, I. A., 1C
 Sazonkin, Stanislav G., 0Q
 Sazonov, Sergey V., 0G, 0L
 Scalora, M., 0O
 Shaman, Yu. P., 1A
 Sheridan, John T., 0U
 Shestakov, Pavel Yu., 0A
 Shukshin, Vladislav E., 16, 18, 19
 Sibilia, Concita, 08
 Smetanin, Sergei N., 16, 18, 19
 Smetanina, E. O., 0V
 Smirnov, Sergey V., 1F
 Sosedko, Ekaterina V., 1H
 Sun, Chi-Kuang, 0T
 Tan, Dawn T. H., 07
 Tang, Lingli, 1I
 Tcibulnikova, A. V., 0Y
 Teplakov, Nikita V., 0B
 Tereshchenko, Dmitry P., 19
 Toropov, Nikita A., 12
 Trull, J. F., 0O
 Vartanyan, Tigran A., 12, 13
 Vasilevsky, Pavel N., 0D
 Vatnik, Ilya D., 1F, 1G
 Vincenti, M. A., 09
 Volkov, Roman O., 12
 Vovk, Ilya A., 0B
 Vovk, Tatiana A., 0W
 Vyhídal, David, 16, 18
 Wan, Min, 0U
 Wei, Ming-Liang, 0T
 Zagursky, Dmitrii Y., 0M
 Zakharova, Irina G., 0G, 0L, 0M
 Zemlyakova, E. S., 0Y
 Zhang, Huijing, 1I
 Zhao, Yongguang, 1I
 Zheltikov, A. M., 03
 Zhokhov, P. A., 03
 Zhu, Xiaohua, 1I
 Zito, Gianluigi, 0S
 Zolotovskii, Igor O., 13
 Zotov, K. V., 1C
 Zverev, Petr G., 16, 18

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- 3 Nonlinear Materials and THz: Special Session Honoring
Prof. Joseph W. Haus
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- 4 Nonlinear Effects
Tomasz Stefaniuk, University of Warsaw (Poland)
- 5 Plasmonics and SHG
Guixin Li, Southern University of Science and Technology of China
(China)
- 6 Nonlinearities in Quantum Systems and Applications
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Introduction

This volume provides a collection of papers presented at the Nonlinear Optics and Applications XI conference, held as a part of SPIE Optics + Optoelectronics in Prague (Czech Republic) on 1–4 April 2019. The key topics highlighted in both this year's conference program and in this volume of SPIE Proceedings include ultrafast phenomena in nonlinear optics, nonlinear optics of chiral media and systems, nonlinear materials, terahertz technologies, nonlinear-optical effects on the nanoscale, quantum nonlinear optics, as well as plasmonics. The latest Nobel Prize in physics being among the most powerful motives of the entire meeting, much of the focus of Nonlinear Optics and Applications XI was on nonlinear-optical applications of high-peak-power laser pulses generated using the chirped-pulse amplification technology.

As a special event, this year's conference program featured a memorial session dedicated to Professor Joseph Haus, our dear colleague and friend, who passed away so prematurely a few months before the conference. Professor Haus was widely recognized as the world's leading expert in nonlinear optics and novel photonic materials, including, most notably, photonic crystals and optical metamaterials. A fellow of SPIE, OSA, and APS, Professor Haus on multiple occasions co-chaired and served on program committees for major international meetings on nonlinear optics and photonics. A man of great courage and a heart of pure gold, Joe will be remembered and missed dearly.

For many years, Joseph Haus has served as a Co-Chair of the Nonlinear Optics and Applications conferences. We shall proceed with our work and with this conference with Joe in our minds and our hearts and with Joe's words of hope and wisdom "the best is yet to come."

Mario Bertolotti
Aleksei M. Zheltikov