



Palais de la Musique et des Congrès

Strasbourg, France

22 - 26 April 2018

Biophotonics: Photonic Solutions for Better Health Care

Monday - Thursday 23 - 26 April 2018

Conference Sessions At A Glance

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- Hot Topics I
- 1:** Therapy I
- 2:** Imaging I
- 3:** Therapy II
- 4:** Imaging II: Raman
- 5:** Point of Care I
- 6:** Point of Care II
- Hot Topics II
- Optics in Surgery I: Joint Session between Conferences 10677 and 10685
- 7:** Imaging III
- 8:** Imaging IV: OCT
- Optics in Surgery II: Joint Session between Conferences 10677 and 10685
- 9:** Imaging V: OCT
- 10:** Imaging VI
- Posters-Wednesday
- Hot Topics III
- 11:** Therapy III
- 12:** Imaging and Spectroscopy
- 13:** Imaging VII: Fluorescence

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

Jürgen Popp, Leibniz-Institut für Photonische Technologien e.V. (Germany)
Valery V. Tuchin, N.G. Chernyshevsky Saratov State Univ. (Russian Federation)
Francesco Saverio Pavone, European Lab. for Non-linear Spectroscopy (Italy)

Program Committee continued...

Qingming Luo, Britton Chance Ctr. for Biomedical Photonics (China)
Thomas G. Mayerhöfer, Leibniz-Institut für Photonische Technologien e.V. (Germany)
Vasilis Ntzachristos, Helmholtz Zentrum München GmbH (Germany)
David D. Sampson, The Univ. of Western Australia (Australia)
Ernst H. K. Stelzer, Johann Wolfgang Goethe-Univ. Frankfurt am Main (Germany)
Hugo Thienpont, Vrije Univ. Brussel (Belgium)
Siva Umapathy, Indian Institute of Science (India)
I. Alex Vitkin, Ontario Cancer Institute (Canada)
Gert von Bally, Ctr. for Biomedical Optics and Photonics (Germany)
Brian C. Wilson, Princess Margaret Hospital (Canada)

Program Committee

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Johannes F. de Boer, Vrije Univ. Amsterdam (Netherlands)
Kishan Dholakia, Univ. of St. Andrews (United Kingdom)
Dror Fixler, Bar-Ilan Univ. (Israel)
Paul Garside, Univ. of Glasgow (United Kingdom)
Sylvain Gioux, Univ. de Strasbourg (France)
Kirill V. Larin, Univ. of Houston (United States)

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 6

Session 1: Therapy I

Monday 23 April 2018
 11:30 AM - 12:40 PM
 Location: Salon 6

Session Chair: Jürgen Popp, Leibniz-Institut für Photonische Technologien e.V. (Germany)

Investigations and developments for PDT in brain tumors (Conference Presentation) (Invited Paper)

Paper 10685-1

Time: 11:30 AM - 11:55 AM

Author(s): Ronald Sroka, Adrian Rühm, Herbert Stepp, Niklas Markwardt, Laser-Forschungslabor (Germany)

[Add To My Schedule](#) **Monte Carlo based light propagation models to improve efficacy of biophotonics based therapeutics of hollow organs and solid tumours including photodynamic therapy and photobiomodulation (Conference Presentation)**

Paper 10685-2

Time: 11:55 AM - 12:10 PM

Author(s): Lothar D. Lilge, Univ. Health Network (Canada); Jeffrey Cassidy, Abdul-Amir Yassine, William Kingsford, Univ. of Toronto (Canada); Yiwen Xu, Brian C. Wilson, Univ. Health Network (Canada); Vaughn Betz, Univ. of Toronto (Canada)

[Add To My Schedule](#) **Binding of cationic porphyrins and metalloporphyrins to the human transferrin for photodynamic therapy of tumors**

Paper 10685-3

Time: 12:10 PM - 12:25 PM

Author(s): Anna G. Gyulkhandanyan, Institute of Biochemistry, National Academy of Sciences of Armenia (Armenia); Marina V. Parkhots, Valeri Knyuksho, Sergei Lepeshkevich, Boris M. Dzhagarov, B.I. Stepanov Institute of Physics, National Academy of Sciences of Belarus (Belarus); Anna A. Zakoyana, Institute of Biochemistry, National Academy of Sciences of Armenia (Armenia); Aram G. Gyulkhandanyan, Molécules Thérapeutiques in silico (MTi) (France), INSERM (France), Univ. Paris Diderot (France); Marina A. Sheyryanyan, Yerevan State Univ. (Armenia); Guevork A. Kevorkian, Grigor V. Gyulkhandanyan, Institute of Biochemistry, National Academy of Sciences of Armenia (Armenia)

[Add To My Schedule](#) **Dry mass and average phase shift dynamics in HeLa cells subjected to low-dose photodynamic treatment**

Paper 10685-4

Time: 12:25 PM - 12:40 PM

Author(s): Andrey V. Belashov, ITMO Univ. (Russian Federation); Anna A. Zhikhoreva, Ioffe Institute (Russian Federation), ITMO Univ. (Russian Federation); Tatiana Belyaeva, Elena Kornilova, Anna Salova, Institute of Cytology of the Russian Academy of Sciences (Russian Federation); Irina Semenova, Oleg Vasutinskii, Ioffe Institute (Russian Federation)

[Add To My Schedule](#)

Lunch Break 12:40 PM - 1:40 PM

Session 2: Imaging I

Monday 23 April 2018
 1:40 PM - 3:40 PM
 Location: Salon 6

Session Chair: Lothar D. Lilge, Univ. Health Network (Canada)

Handheld laser speckle photometer for skin diagnostics

Paper 10685-5

Time: 1:40 PM - 1:55 PM

Author(s): Rainer Riesenber, Andreas Wuttig, Mario Kanka, Daniel Kraus, Sarmiza Stanca, Leibniz-Institut für Photonische Technologien e.V. (Germany); Michael Zieger, Martin Kaatz, SRH Wald-Klinikum Gera GmbH (Germany)

[Add To My Schedule](#) **Retrieving viscoelastic properties using time-resolved spatial speckle imaging**

Paper 10685-6

Time: 1:55 PM - 2:10 PM

Author(s): Christelle Abou Nader, Jean-Michel Tualle, Eric Tinet, Dominique Ettori, Lab. de Physique des Lasers, Univ. Paris 13 (France), Institut Galilée (France)

[Add To My Schedule](#) **Wide-field speckle imaging and two-photon microscopy for the investigation of cerebral blood flow in vivo in mice models of obesity**

Paper 10685-7

Time: 2:10 PM - 2:25 PM

Author(s): Haleh Soleimanzad, Univ. Paris-Sud 11 (France); Univ. Paris - Diderot 7 (France); Ctr. National de la Recherche Scientifique (France); Hirac Gurden, Ctr. National de la Recherche Scientifique (France); Univ. Paris Diderot - 7 (France); Frédéric Pain, Univ. Paris Sud 11 (France); Ctr. National de la Recherche Scientifique (France)

[Add To My Schedule](#) **Investigation of speckle pattern dynamics by laser speckle contrast imaging**

Paper 10685-8

Time: 2:25 PM - 2:40 PM

Author(s): Anton Sdobnov, Alexander Bykov, Alexey Popov, Univ. of Oulu (Finland); Evgeny Zherebtsov, Aston University, Optoelectronics and Biomedical Photonics Group, Aston Institute of Photonic Technn (United Kingdom); Igor A. Meglinski, Univ. of Oulu (Finland)

[Add To My Schedule](#) **Indices of polarimetric purity to enhance the image quality in biophotonics applications**

Paper 10685-9

Time: 2:40 PM - 2:55 PM

Author(s): Albert Van Eeckhout, Angel Lizana, Univ. Autònoma de Barcelona (Spain); Enric Garcia-Caurel, Ecole Polytechnique (France); Jose J. Gil, Univ. de Zaragoza (Spain); Adrià Sansa, Carla Rodríguez, Irene Estévez, Univ. Autònoma de Barcelona (Spain); Emilio González, Hospital Univ. de Canarias (Spain), Univ. Autònoma de Madrid (Spain); Haolin Zhang, Juan Carlos Escalera, Univ. Autònoma de Barcelona (Spain); Razvigor Ossikovski, Ecole Polytechnique (France); Ignacio Moreno, Univ. Miguel Hernández de Elche (Spain); Juan Campos, Univ. Autònoma de Barcelona (Spain)

[Add To My Schedule](#) **Rotation-independent polarization parameters for distinguishing different anisotropic microstructures**

Paper 10685-10

Time: 2:55 PM - 3:10 PM

Author(s): Pengcheng Li, Tsinghua Univ. (China); Donghong Lv, Graduate School at Shenzhen, Tsinghua Univ. (China); Chuhui Wang, Tsinghua Univ. (China); Honghui He, Graduate School at Shenzhen, Tsinghua Univ. (China)

[Add To My Schedule](#) **Collinear back scattering Muller microscopy for biomedical applications**

(Canceled)

Paper 10685-11

Time: 3:10 PM - 3:25 PM

Author(s):

3D digital histopathology of the human brain cortex

Paper 10685-48

Time: 3:25 PM - 3:40 PM

Author(s): Irene Costantini, Giacomo Mazzamuto, Ludovico Silvestri, LENS - Lab. Europeo di Spettroscopie Non-Lineari (Italy); M. Neri, M. Roffilli, Bioretics Srl (Italy); Valerio Conti, Renzo Guerrini, Azienda Ospedaliera Univ. Anna Meyer (Italy); Leonardo Sacconi, Francesco Saverio Pavone, LENS - Lab. Europeo di Spettroscopie Non-Lineari (Italy)

[Add To My Schedule](#) **Coffee Break 3:40 PM - 4:05 PM****Session 3:
Therapy II**

Monday 23 April 2018

4:05 PM - 5:45 PM

Location: Salon 6

Session Chair: Ronald Sroka, Laser-Forschungslabor (Germany)

**Personalizing cytotoxic dose for Ru(II) coordination complex mediated photodynamic therapy in nonmuscle invasive bladder cancer
(Conference Presentation) (Invited Paper)**

Paper 10685-12

Time: 4:05 PM - 4:30 PM

Author(s): Lothar D. Lilge, Univ. Health Network (Canada); Arkadii Mandel, Theralase, Inc. (Canada); Savo Lazic, Pavel Kaspler, Theralase, Inc. (Canada); Girish Kulkarni, Michael Jewett, Univ. Health Network (Canada)

[Add To My Schedule](#) **Optical cavitation around gold nanorods for photoacoustic microsurgery**

Paper 10685-13

Time: 4:30 PM - 4:45 PM

Author(s): Lucia Cavigli, Istituto di Fisica Applicata "Nello Carrara" (Italy); Paolo Tortoli, Univ. degli Studi di Firenze (Italy); Sonia Centi, Claudia Borri, Istituto di Fisica Applicata "Nello Carrara" (Italy); Ilaria Panettieri, Ingolf Streit, Ascleplion Laser Technologies GmbH (Germany); Francesca Rossi, Fulvio Ratto, Roberto Pini, Istituto di Fisica Applicata "Nello Carrara" (Italy)

[Add To My Schedule](#)

Blue LED treatment of superficial abrasions: in vivo experimental evidence of wound healing improvement

Paper 10685-14

Time: 4:45 PM - 5:00 PM

Author(s): Giada Magni, Francesca Tatini, Lucia Cavigli, Roberto Pini, Istituto di Fisica Applicata "Nello Carrara" (Italy); Riccardo Cicchi, Istituto Nazionale di Ottica (Italy); Stefano Bacci, Gaia Paroli, Gaetano De Siena, Univ. degli Studi di Firenze (Italy); Domenico Alfieri, Cristina Tripodi, Lorenzo Targetti, EmoLED S.r.l. (Italy); Francesco Saverio Pavone, Istituto Nazionale di Ottica (Italy), LENS - Lab. Europeo di Spettroscopie Non-Lineari (Italy), Univ. degli Studi di Firenze (Italy); Francesca Rossi, Istituto di Fisica Applicata "Nello Carrara" (Italy)

[Add To My Schedule](#) **High sensitivity spatial and temporal quantification of skin gloss for measuring the resorption kinetics of external agents**

Paper 10685-178

Time: 5:00 PM - 5:15 PM

Author(s): Anna A. Ezerskaia, Technische Univ. Delft (Netherlands)

[Add To My Schedule](#) **Evaluation of short pulse laser damage to the retinal pigment epithelium layer: a key point for the assessment of devices using the nanosecond regime**

Paper 10685-16

Time: 5:15 PM - 5:30 PM

Author(s): Scarlett Ramos, Robert Bosch GmbH (Germany); Miriam Reh, Günther Zeck, Naturwissenschaftliches und Medizinisches Institut an der Univ. Tübingen (Germany); Nico Heussner, Robert Bosch GmbH (Germany)

[Add To My Schedule](#) **Proof of concept: anti-EPCAM gold nanorods and femtosecond laser pulses for retinoblastoma treatment**

Paper 10685-17

Time: 5:30 PM - 5:45 PM

Author(s): Nir Katchinskiy, Roseline Godbout, Univ. of Alberta (Canada); Ali Hatef, Nipissing Computational Physics Laboratory (Canada); Abdulhakem Y. Elezzabi, Univ. of Alberta (Canada)

[Add To My Schedule](#) **TUESDAY 24 APRIL**[Show All Abstracts](#)**Session 4:
Imaging II: Raman**

Tuesday 24 April 2018

8:30 AM - 10:40 AM

Location: Salon 6

Session Chair: [Jürgen Popp](#), Leibniz-Institut für Photonische Technologien e.V. (Germany)**Molecular profiling of sepsis in mice using vibrational microspectroscopy (Invited Paper)**

Paper 10685-18

Time: 8:30 AM - 8:55 AM

Author(s): Taru Verma, Indian Institute of Science (India); Rekha Gautam, The Univ. of Alabama at Birmingham (United States); Dipankar Nandi, Siva Umapathy, Indian Institute of Science (India)

[Add To My Schedule](#) **In-situ species authentication of frozen-thawed meat and meat juice using shifted excitation Raman difference spectroscopy**

Paper 10685-19

Time: 8:55 AM - 9:10 AM

Author(s): Kay Sowoidnich, STFC Rutherford Appleton Lab. (United Kingdom); Heinz-Detlef Kronfeldt, Technical Univ. Berlin (Germany)

[Add To My Schedule](#) **Investigations on multimodal image analysis routines for tissue diagnostics**

Paper 10685-20

Time: 9:10 AM - 9:25 AM

Author(s): Thomas Bocklitz, Friedrich-Schiller-Univ. Jena (Germany); Shuxia Guo, Northwestern Polytechnical Univ. (China)

[Add To My Schedule](#) **Analysis of human skin Raman and autofluorescence as predictors of chronic diseases (Conference Presentation)**

Paper 10685-21

Time: 9:25 AM - 9:40 AM

Author(s): Ivan A. Bratchenko, Lyudmila A. Shamina, Dmitry N. Artemyev, Oleg O. Myakinin, Yulia A. Khristoforova, Valery P. Zakharov, Dmitriy V. Kornilin, Vladimir N. Grishanov, Samara Univ. (Russian Federation); Peter A. Lebedev, Larissa A. Rogozina, Daria Y. Pimenova, Samara State Medical Univ. (Russian Federation)

[Add To My Schedule](#) **Raman spectroscopic profiling of intracellular lipid compositions of macrophages induced in the vicinity of cancer cells (Conference Presentation)**

Paper 10685-22

Time: 9:40 AM - 9:55 AM

Author(s): Christian Matthäus, Leibniz-Institut für Photonische Technologien e.V. (Germany); Simona Pace, Andreas Koeberle, Oliver Werz, Friedrich-Schiller-Univ. Jena (Germany); Jürgen Popp, Leibniz-Institut für Photonische Technologien e.V. (Germany)

[Add To My Schedule](#) **Resonance Raman spectroscopy on whole blood in a microfluidic device with hydrodynamic cell-free layer creation (Conference Presentation)**

Paper 10685-23

Time: 9:55 AM - 10:10 AM

Author(s): Moritz Matthiae, Technical Univ. of Denmark (Denmark); Xiaolong Zhu, Technical Univ. of Denmark (Denmark); Rodolphe Marie, Anders Kristensen, Technical Univ. of Denmark (Denmark)

[Add To My Schedule](#) **Time-resolved single photon spectroscopy through a single optical fibre for miniaturised medical probe design**

Paper 10685-24

Time: 10:10 AM - 10:25 AM

Author(s): Katjana Ehrlich, Heriot-Watt Univ. (United Kingdom); Holly Fleming, Sarah McAughtrie, Andras Kufcsák, Nikola Krstajić, Colin J. Campbell, Robert K. Henderson, Kevin Dhaliwal, The Univ. of Edinburgh (United Kingdom); Robert R. Thomson, Michael G. Tanner, Heriot-Watt Univ. (United Kingdom)

[Add To My Schedule](#) **Investigation of brass as a real-time substrate for surface-enhanced Raman spectroscopy**

Paper 10685-25

Time: 10:25 AM - 10:40 AM

Author(s): Behzad Sardari, Sabanci Univ (Turkey); Meriç Özcan, Sabanci Univ. (Turkey)

[Add To My Schedule](#) **Coffee Break 10:40 AM - 11:00 AM****Session 5:
Point of Care I**

Tuesday 24 April 2018

11:00 AM - 12:40 PM

Location: Salon 6

Session Chair: Sergei G. Sokolovski, Aston Univ. (United Kingdom)**Dendra2-tagged Lifeact and MAP4 as exchangeable probes for single-molecule fluorescence imaging of cytoskeleton in live cells (Invited Paper)**

Paper 10685-26

Time: 11:00 AM - 11:25 AM

Author(s): Elena V. Zagaynova, Olga Furman, Nizhny Novgorod State Medical Academy (Russian Federation); Maxim M. Perfilov, Shemyakin-Ovchinnikov Institute of Bioorganic Chemistry RAS (Russian Federation); Natalia Klementieva, Privalzhsky Research Medical University (Russian Federation); Konstantin Lukyanov, Nina Bozhanova, Alexander Mishin, Shemyakin-Ovchinnikov Institute of Bioorganic Chemistry RAS (Russian Federation)

[Add To My Schedule](#) **Estimation of blood Raman spectrum from tissue measurements utilizing blood pulse**

Paper 10685-27

Time: 11:25 AM - 11:40 AM

Author(s): Maciej S. Wróbel, Janusz Smulko, Gdansk Univ. of Technology (Poland)

[Add To My Schedule](#) **Engineering nanopattern geometry at molecular resolution to enhance sensitivity of nanoplasmonic biosensors (Conference Presentation)**

Paper 10685-28

Time: 11:40 AM - 11:55 AM

Author(s): Rishabh Rastogi, Luxembourg Institute of Science and Technology (Luxembourg); Suresh Poovanthingal, Luxembourg Ctr. for Systems Biomedicine, Univ. of Luxembourg (Luxembourg); Pierre Michel Adam, Univ. de Technologie Troyes (France); Jewgeni Starikov, Karlsruhe Institute of Technology (Germany); Saulius Juodkazis, Swinburne Univ. of Technology (Australia); Sivashankar Krishnamoorthy, Luxembourg Institute of Science and Technology (Luxembourg)

[Add To My Schedule](#) **Quantifying the concentration of glucose, urea, and lactic acid in mixture by confocal Raman microscopy**

Paper 10685-29

Time: 11:55 AM - 12:10 PM

Author(s): Zhengyuan Tang, Sinead Baraton, Tomás Ward, National Univ. of Ireland, Maynooth (Ireland); John P. Lowry, Department of Chemistry, Maynooth University (Ireland); Michelle Doran, Maynooth Univ. (Ireland); Hugh J. Byrne, FOCAS Research Institute, Dublin Institute of Technology (Ireland); Bryan Hennelly, National Univ. of Ireland, Maynooth (Ireland)

[Add To My Schedule](#) **Chiral hybrid nanostructures for biomedical applications**

Paper 10685-30

Time: 12:10 PM - 12:25 PM

Author(s): Anastasia Visheratina, ITMO Univ. (Russian Federation); Vera Kuznetsova, Trinity College Dublin (Ireland), ITMO Univ. (Russian Federation); Finn Purcell-Milton, Trinity College Dublin (Ireland); Anna Orlova, Anatoly Fedorov, Alexander Baranov, ITMO Univ. (Russian Federation); Yurii Gun'ko, Trinity College Dublin (Ireland), ITMO Univ. (Russian Federation)

[Add To My Schedule](#)

Combined label-free/fluorescence platform based on Bloch surface waves biochips for cancer biomarker detection

Paper 10685-32

Time: 12:25 PM - 12:40 PM

Author(s): Norbert Danz, Fraunhofer-Institut für Angewandte Optik und Feinmechanik (Germany); Alberto Sinibaldi, Sapienza Univ. di Roma (Italy); Matteo Allegretti, Istituto Nazionale Tumori Regina Elena (Italy); Elisabetta Sepe, Sapienza Univ. di Roma (Italy); Peter Munzert, Fraunhofer-Institut für Angewandte Optik und Feinmechanik (Germany); Patrizio Giacomini, Istituto Nazionale Tumori Regina Elena (Italy); Francesco Michelotti, Sapienza Univ. di Roma (Italy)

[Add To My Schedule](#) **Lunch/Exhibition Break 12:40 PM - 1:50 PM****Session 6:
Point of Care II**

Tuesday 24 April 2018

1:50 PM - 4:00 PM

Location: Salon 6

Session Chair: [Elena V. Zagaynova](#), Nizhny Novgorod State Medical Academy (Russian Federation)**Laser-induced singlet oxygen generation in biotic systems and its emerging applications (*Invited Paper*)**

Paper 10685-33

Time: 1:50 PM - 2:15 PM

Author(s): Sergei G. Sokolovski, Aston Univ. (United Kingdom); Oxana V. Semyachkina-Glushkovskaya, Saratov State Univ. (Russian Federation); Edik U. Rafailov, Aston Univ. (United Kingdom)

[Add To My Schedule](#) **Optical flocculation technique based on optogenetic and whispering gallery modes for drinking water purification**

Paper 10685-34

Time: 2:15 PM - 2:30 PM

Author(s): Amir R. Ali, Southern Methodist Univ. (United States), the German Univ. in Cairo (Egypt); Amal S. Tourky, Al-Azhar Univ. (Egypt); Roushdy A. Ali, Al Azhar Univ. (Egypt)

[Add To My Schedule](#) **Analysis of exhaled air of patients with myocardial infarction by laser spectroscopy and data mining**

Paper 10685-36

Time: 2:45 PM - 3:00 PM

Author(s): Yury V. Kistenev, Alexey V. Borisov, Tomsk State Univ. (Russian Federation); Dmitry A. Kuzmin, Siberian State Medical Univ. (Russian Federation); Anna G. Syrkina, Research Institute for Cardiology, Russian Academy of Sciences (Russian Federation)

[Add To My Schedule](#) **Multidistance time domain diffuse optical spectroscopy in the assessment of abdominal fat heterogeneity**

Paper 10685-39

Time: 3:15 PM - 3:30 PM

Author(s): Pranav Lanza, Politecnico di Milano (Italy); Andrea Farina , CNR-Istituto di Fotonica e Nanotecnologie (Italy); Sanathana Konugolu Venkata Sekar , Claudia Guadagno , Politecnico di Milano (Italy); Lorenzo Spinelli , CNR-Istituto di Fotonica e Nanotecnologie (Italy); Paola Taroni, Rinaldo Cubeddu , Politecnico di Milano (Italy); Enzo Nisoli, Univ. degli Studi di Milano (Italy); Antonio Pifferi, Politecnico di Milano (Italy)

[Add To My Schedule](#) **Study of optimal measurement conditions for time-domain diffuse optics systems**

Paper 10685-40

Time: 3:30 PM - 3:45 PM

Author(s): Anurag Behera, Laura Di Sieno, Antonio Pifferi, Politecnico di Milano (Italy); Fabrizio Martelli, Univ. degli Studi di Firenze (Italy); Alberto Dalla Mora, Politecnico di Milano (Italy)

[Add To My Schedule](#) **Pulse excitation fluorescence meter for diagnostic purposes**

Paper 10685-41

Time: 3:45 PM - 4:00 PM

Author(s): Dmitriy V. Komilin, Vladimir N. Grishanov, Konstantin V. Cherepanov, Samara Univ. (Russian Federation)

[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**[Show All Abstracts](#)**Session JS1:
Optics in Surgery I: Joint Session between Conferences 10677 and 10685**

Wednesday 25 April 2018

8:30 AM - 10:40 AM

Location: Marie Curie B

Session Chair: Sylvain Gioux, ICube (France)*Please note the room change***Optical and optoacoustic imaging (Keynote Presentation)**

Paper 10677-51

Time: 8:30 AM - 9:10 AM

Author(s): Vasilis Ntziachristos, Technische Univ. München (Germany), Helmholtz Zentrum München GmbH (Germany)

[Add To My Schedule](#) **Real-time oxygenation imaging using spatio-temporal modulation of light (Conference Presentation)**

Paper 10685-57

Time: 9:10 AM - 9:25 AM

Author(s): Manon Schmidt, Amir Nahas, Swapnesh Panigrahi, Murielle Torregrossa, Sylvain Gioux, ICube (France)

[Add To My Schedule](#) **Quantitative subsurface fluorescence imaging enabled by spatial frequency domain imaging for enhanced fluorescence-guided surgery (Conference Presentation)**

Paper 10685-58

Time: 9:25 AM - 9:40 AM

Author(s): Mira Sibai, Univ. of Toronto (Canada), Princess Margaret Cancer Ctr., Univ. Health Network (Canada); Dennis J. Wirth, Thayer School of Engineering at Dartmouth (United States); Frédéric Leblond, Ecole Polytechnique de Montréal (Canada); David W. Roberts, Dartmouth Hitchcock Medical Ctr. (United States); Brian C. Wilson, Princess Margaret Cancer Ctr., Univ. Health Network (Canada), Univ of Toronto (Canada)

[Add To My Schedule](#) **Phantom and methodology for fluorescence molecular imaging systems benchmarking**

Paper 10677-52

Time: 9:40 AM - 9:55 AM

Author(s): Dimitris Gorpas, Helmholtz Zentrum München GmbH (Germany); Maximilian Koch, Maria Anastasopoulou, Helmholtz Zentrum München GmbH (Germany), Technische Univ. München (Germany); Uwe Klemm, Helmholtz Zentrum München GmbH (Germany); Vasilis Ntziachristos, Helmholtz Zentrum München GmbH (Germany), Technische Univ. München (Germany)

[Add To My Schedule](#) **Real-time imaging using an OCT device steered by a robotized flexible endoscope**

Paper 10677-53

Time: 9:55 AM - 10:10 AM

Author(s): Oscar Caravaca Mora, Lucile Zorn, Philippe Zanne, Florent Nageotte, Paul C. Montgomery, Michel De Mathelin, ICube (France); Michalina Gora, ICube (France), Ctr. National de la Recherche Scientifique (France)

[Add To My Schedule](#) **CMOS-based contact imaging system for skin condition diagnosis by spatially resolved diffuse reflectance spectroscopy**

Paper 10685-59

Time: 10:10 AM - 10:25 AM

Author(s): Nils Petididier, Anne Koenig, Rémi Gerbelot, Henri Grateau, CEA-LETI (France); Sylvain Gioux, Univ. de Strasbourg (France); Sophie Morales, CEA-LETI (France)

[Add To My Schedule](#) **Differentiation of femur bone from surrounding soft tissue using laser-induced breakdown spectroscopy as a feedback system for smart laserosteotomy**

Paper 10685-60

Time: 10:25 AM - 10:40 AM

Author(s): Hamed Abbasi, Georg Rauter, Raphael Guzman, Philippe C. Cattin, Azhar Zam, Univ. Basel (Switzerland)

[Add To My Schedule](#) **Coffee Break 10:40 AM - 11:00 AM**

Session JS2: Optics in Surgery II: Joint Session between Conferences 10677 and 10685

Wednesday 25 April 2018

11:00 AM - 12:55 PM

Location: Marie Curie B

Session Chair: Sylvain Gioux, ICube (France)

Please note the room change

Optics in surgery: the surgeon perspective (Invited Paper)

Paper 10677-54

Time: 11:00 AM - 11:25 AM

Author(s): Labrinus van Manen, Alexander L. Vahrmeijer, J. Sven D. Mieog, Leiden Univ. Medical Ctr. (Netherlands)

[Add To My Schedule](#)

Standardization of quantitative NIR fluorescent imaging in patient: a preliminary attempt on flap reconstructive surgery

Paper 10685-61

Time: 11:25 AM - 11:40 AM

Author(s): Muriel Abbaci, Wahib Ghanem, Ingrid Breuskin, Haitham Mirghani, Philippe Gorphe, Antoine Moya-Plana, Heba Alkhashnam, Kim De Fremicourt, Jean-François Honart, Anne AUPERIN, François Janot, Frédéric Kolb, Stéphane Temam, Quentin Qassemyar, Corinne Laplace-Builhé, Dana Hartl, Gustave Roussy (France)

[Add To My Schedule](#)

Near-infrared fluorescence imaging methods to evaluate blood flow state in the skin lesions

Paper 10677-55

Time: 11:40 AM - 11:55 AM

Author(s): Pavel V. Grachev, A. M. Prokhorov General Physics Institute of the Russian Academy of Sciences (Russian Federation); Zera Abdulkapova, Endocrinology Research Ctr. (Russian Federation); Kirill Linkov, A. M. Prokhorov General Physics Institute of the Russian Academy of Sciences (Russian Federation); Gagik Galstyan, Endocrinology Research Ctr. (Russian Federation); Victor Loschenov , A. M. Prokhorov General Physics Institute of the Russian Academy of Sciences (Russian Federation)

[Add To My Schedule](#)

Interventional fluorescence spectroscopy to detect tumor margins during glioma resection with two fluorescence spectra of PpIX

Paper 10677-56

Time: 11:55 AM - 12:10 PM

Author(s): Laure Alston, CREATIS (France); Jacques Guyotat, Ctr. Hospitalier Univ. de Lyon (France); Laurent Mahieu-Willame, CREATIS (France); Mathieu Hebert, Lab. Hubert Curien (France); Pascal Kantapareddy, David Meyronet, Ctr. Hospitalier Univ. de Lyon (France); David Rousseau, Bruno Montcel, CREATIS (France)

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Femtosecond laser nanosurgery to study cellular regeneration: keeping the whole cell in mind

Paper 10685-62

Time: 12:10 PM - 12:25 PM

Author(s): Stefan Michael Klaus Kalias, Laser Zentrum Hannover e.V. (Germany); Dorian Hagenah, Dominik Müller, Daphne DeTemple, Alexander Heisterkamp, Leibniz Univ. Hannover (Germany)

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Spatially resolved spectroscopy for guiding margin delineation during human skin carcinomas resection: first clinical results on diffuse reflectance and autofluorescence spectra and *in vivo* skin optical properties

Paper 10685-63

Time: 12:25 PM - 12:40 PM

Author(s): Grégoire Khairallah, Univ. de Lorraine (France), Ctr. National de la Recherche Scientifique (France), Metz-Thionville Regional Hospital Ctr. (France); Marine Amouroux, Univ. de Lorraine (France), Ctr. National de la Recherche Scientifique (France); François Plénat, Université de Lorraine, CNRS, CRAN (France); Prisca Rakotomanga, Charles Soussen, Ctr. de Recherche en Automatique de Nancy (France), Ctr. National de la Recherche Scientifique (France); Frédéric Marchal, Ctr. de Recherche en Automatique de Nancy (France), Ctr. National de la Recherche Scientifique (France), Institut de Cancérologie de Lorraine (France); Alain Delconte, Ctr. National de la Recherche Scientifique (France); Hang Chen, Univ. de Lorraine (France), Ctr. National de la Recherche Scientifique (France); Walter C. P. M. Blondel, Univ. de Lorraine (France), Ctr. National de la Recherche Scientifique (France)

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Single- and multispectral fiber probes as a solution for guided diagnostics and therapy (Conference Presentation)

Paper 10685-64

Time: 12:40 PM - 12:55 PM

Author(s): Olga Bibikova, art photonics GmbH (Germany), Saratov State Univ. (Russian Federation); Urszula J. Zabarylo, Charité Universitätsmedizin Berlin (Germany); Valeria Belikova, Anastasija Melenteva, Samara State Technical Univ. (Russian Federation); Iskander Usenov, art photonics GmbH (Germany), Technical Univ. Berlin (Germany); Thaddäus Hoczt, Charité Universitätsmedizin Berlin (Germany); Tatiana Sakharova, Alexey Bocharkov, Georgy Danielyan, art photonics GmbH (Germany); Olaf Minet, Charité Universitätsmedizin Berlin (Germany); Hans J. Eichler, Technische Univ. Berlin (Germany); Viacheslav Artyushenko, art photonics GmbH (Germany)

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Session 7: Imaging III

Wednesday 25 April 2018

8:30 AM - 10:15 AM

Location: Salon 6

Session Chair: Christian Matthäus, Leibniz-Institut für Photonische Technologien e.V. (Germany)

Please note: Session 7 runs concurrently with Joint Session 1

Hyperspectral evaluation of skin blood oxygen saturation at baseline and during arterial occlusion

Paper 10685-42

Time: 8:30 AM - 8:45 AM

Author(s): Zbignevs Marcinkevics, Uldis Rubins, Andris Grabovskis, Janis Cimurs, Anastasija Caica, Univ. of Latvia (Latvia)

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In vivo fast automatic skin cancer recognition using a multispectral dermatoscopy imaging tool (Conference Presentation)

Paper 10685-43

Time: 8:45 AM - 9:00 AM

Author(s): Oleg O. Myakinin, Oleg A. Melsitov, Semyon G. Konovalov, Ivan A. Bratchenko, Samara National Research Univ. (Russian Federation); Alexander A. Moryatov, Sergey V. Kozlov, Samara State Medical Univ. (Russian Federation); Valery P. Zakharov, Samara National Research Univ. (Russian Federation)

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Hydrogels for efficient light delivery in optogenetic applications (Conference Presentation)

Paper 10685-44

Time: 9:00 AM - 9:15 AM

Author(s): Sonja Johannsmeier, Laser Zentrum Hannover e.V. (Germany); Maria Leilani Torres, Leibniz Univ. Hannover (Germany); Tammo Ripken, Dag Heinemann, Laser Zentrum Hannover e.V. (Germany); Alexander Heisterkamp, Leibniz Univ. Hannover (Germany)

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Analysis of the connectivity of in vitro human iPSC-derived neuronal networks using holographic illumination

Paper 10685-45

Time: 9:15 AM - 9:30 AM

Author(s): Felix Schmieder, TU Dresden (Germany); Simon Klapper, DFG-Ctr. for Regenerative Therapies Dresden (Germany); Lars Büttner, TU Dresden (Germany); Volker Busskamp, DFG-Ctr. for Regenerative Therapies Dresden (Germany); Jürgen Czarske, TU Dresden (Germany)

[Add To My Schedule](#)

Deep tissue optogenetics: targeted stimulation of light-sensitive cardiac tissues using near-infrared lasers

Paper 10685-46

Time: 9:30 AM - 9:45 AM

Author(s): Maria Leilani Torres-Mapa, Institut für Quantenoptik, Leibniz Univ. Hannover (Germany); Monica Jara-Avaca, Mine Bakar, Ina Gruh, Medizinische Hochschule Hannover (Germany); Rajesh Komban, Christoph Gimmmer, CAN GmbH (Germany); Sonja Johannsmeier, Tammo Ripken, Dag Heinemann, Laser Zentrum Hannover e.V. (Germany); Alexander Heisterkamp, Leibniz Univ. Hannover (Germany)

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High-resolution magnetic field biosensor based on optical resonators

Paper 10685-47

Time: 9:45 AM - 10:00 AM

Author(s): Amir R. Ali, Southern Methodist Univ. (United States), The German Univ. in Cairo (Egypt); Abdelkarim H. Saleh, The German Univ. in Cairo (Egypt)

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Terahertz dielectric spectroscopy of malignancies (Conference Presentation)

Paper 10685-49

Time: 10:00 AM - 10:15 AM

Author(s): Arseniy A. Gavdush, Nikita V. Chernomyrdin, Bauman Moscow State Technical Univ. (Russian Federation); Sheyh-Islyam Beshplayv, N.N. Burdenko Neurosurgery Institute (Russian Federation); Kirill M. Malakhov, Anna S. Kucheryavenko, Irina N. Dolganova, Stanislav O. Yurchenko, Bauman Moscow State Technical Univ. (Russian Federation); Sergey A. Goryainov, N.N. Burdenko Neurosurgical Institute (Russian Federation); Vladimir N. Kurlov, Institute of Solid State Physics RAS (Russian Federation); Igor V. Reshetov, I.M. Sechenov Moscow Medical Univ. (Russian Federation); Kirill I. Zaytsev, Bauman Moscow State Technical Univ. (Russian Federation), A.M. Prokhorov General Physics Institute of the Russian Academy of Sciences (Russian Federation)

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Coffee Break 10:15 AM - 10:45 AM

Session 8: Imaging IV: OCT

Wednesday 25 April 2018

10:45 AM - 12:40 PM

Location: Salon 6

Session Chair: Kirill V. Larin, Univ. of Houston (United States)

Please note: Session 8 runs concurrently with Joint Session 2

Multimodal approaches for skin cancer diagnosis (Conference Presentation) (Invited Paper)

Paper 10685-50

Time: 10:45 AM - 11:10 AM

Author(s): Valery P. Zakharov, Samara National Research Univ. (Russian Federation); Sergey V. Kozlov, Samara State Medical Univ. (Russian Federation); Ivan A. Bratchenko, Oleg O. Myakinin, Samara National Research Univ. (Russian Federation); Alexander A. Moryatov, Samara State Medical Univ. (Russian Federation); Andrey E. Orlov, Samara Regional Oncology Clinical Ctr. (Russian Federation)

[Add To My Schedule](#) **Bladder cancer biomarkers in co-localised two-photon excited fluorescence and optical coherence microscopy images from fresh biopsies (Cancelled)**

Paper 10685-51

Time: 11:10 AM - 11:25 AM

Author(s):

Micromotor catheters for dual-beam manually-actuated distortion-corrected imaging

Paper 10685-52

Time: 11:25 AM - 11:40 AM

Author(s): Anthony Lee, Madeline Harlow, Geoffrey Hohert, Calum MacAulay, Pierre Lane, BC Cancer Research Ctr. (Canada)

[Add To My Schedule](#) **Optical coherence tomography for noninvasive evaluation of the middle ear effusion (Conference Presentation)**

Paper 10685-54

Time: 11:40 AM - 11:55 AM

Author(s): Pavel A. Shilyagin, Dmitry Terpelov, Institute of Applied Physics of the Russian Academy of Sciences (Russian Federation); Valery Gelikonova, N.I. Lobachevsky State Univ. of Nizhni Novgorod (Russian Federation); Alexey Novozhilov, Timur Abubakirov, The Volga District Medical Ctr. (VDMC) (Russian Federation), Institute of Applied Physics of the Russian Academy of Sciences (Russian Federation); Grigory V. Gelikonov, Institute of Applied Physics of the Russian Academy of Sciences (Russian Federation); Andrey Shakhev, The Volga District Medical Ctr. (VDMC) (Russian Federation), Institute of Applied Physics of the Russian Academy of Sciences (Russian Federation); Valentin M. Gelikonov, Institute of Applied Physics of the Russian Academy of Sciences (Russian Federation); Natalia Shiliagina, N.I. Lobachevsky State Univ. of Nizhni Novgorod (Russian Federation)

[Add To My Schedule](#) **Depth of focus extension in OCT by numerical emulation of diffractionless beam illumination (Cancelled)**

Paper 10685-55

Time: 11:55 AM - 12:10 PM

Author(s):

Development of OCT-based strain- and stiffness-mapping techniques for applications in thermomechanical reshaping of collagenous tissues

Paper 10685-56

Time: 12:10 PM - 12:25 PM

Author(s): Vladimir Y. Zaitsev, Alexandr Matveyev, Lev A. Matveev, Dmitry Shabanov, Institute of Applied Physics of the Russian Academy of Sciences (Russian Federation); Grigory V. Gelikonov, Institute of Applied Physics of The Russian Academy of Sciences (Russian Federation); Olga I. Baum, Aleksandr Omelchenko, Alexey Yuzhakov, Emil Sobol, Institute of Photonic Technologies (Russian Federation)

[Add To My Schedule](#) **Highly sensitive SPR based PCF for biological substance sensing: design and analysis (Cancelled)**

Paper 10685-38

Time: 12:25 PM - 12:40 PM

Author(s):

Lunch/Exhibition Break 12:40 PM - 1:45 PM**Session 9:
Imaging V: OCT**

Wednesday 25 April 2018

1:45 PM - 3:10 PM

Location: Salon 6

Session Chair: Valery P. Zakharov, Samara Univ. (Russian Federation)**All-optical dynamic coherence elastography using laser excited dye-loaded perfluorocarbon nanoparticles (Invited Paper)**

Paper 10685-65

Time: 1:45 PM - 2:10 PM

Author(s): Kirill V. Larin, Chih -Hao Liu, Alexander Schill, Susobhan Das, Univ. of Houston (United States); Dmitry Nevozhay, The Univ. of Texas M.D. Anderson Cancer Ctr. (United States); Manmohan Singh, Univ. of Houston (United States); Konstantin Sokolov, The Univ. of Texas M.D. Anderson Cancer Ctr. (United States)

[Add To My Schedule](#) **Thermo-mechanical mechanism of laser-induced pore-formation in sclera for glaucoma treatment: AFM and OCT investigations**

Paper 10685-66

Time: 2:10 PM - 2:25 PM

Author(s): Olga I. Baum, Alexander Omelchenko, Aleksey Yuzhakov, Institute on Laser and Information Part Technologies of the Russian Academy of

Sciences (Russian Federation); Vladimir Y. Zaitsev, Sovetsky Alexander, Lev A. Matveev, Institute of Applied Physics of the Russian Academy of Sciences (Russian Federation); Emil Sobol, FECC "Crystallography and Photonics" of the Russian Academy of Sciences (Russian Federation)

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Pre-clinical parametric imaging for tumor delineation with optical coherence tomography (Conference Presentation)

Paper 10685-67

Time: 2:25 PM - 2:40 PM

Author(s): Valentin Demidov, Univ. of Toronto (Canada); Dina Guryanova, Saratov State Univ. (Russian Federation); Costel Flueraru, National Research Council Canada (Canada); I. Alex Vitkin, Univ. of Toronto (Canada), Princess Margaret Cancer Ctr. (Canada)

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Estimating the shape of the human eye using widefield optical coherence tomography (OCT)

Paper 10685-69

Time: 2:40 PM - 2:55 PM

Author(s): Manuel Steidle, Jochen Straub, Carl Zeiss Meditec, Inc. (United States)

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Towards swept-source mid-infrared OCT

Paper 10685-70

Time: 2:55 PM - 3:10 PM

Author(s): Suzanna Freer, Dmitry Revin, Kristian Groom, Stephen J. Matcher, The Univ. of Sheffield (United Kingdom)

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Coffee Break 3:10 PM - 3:35 PM

Session 10: Imaging VI

Wednesday 25 April 2018

3:35 PM - 5:50 PM

Location: Salon 6

Session Chair: Valery V. Tuchin, Saratov State Univ. (Russian Federation)

Tumour detection and staging through multimodal fibre-probe spectroscopy

Paper 10685-71

Time: 3:35 PM - 3:50 PM

Author(s): Enrico Baria, Suresh Anand, LENS - Lab. Europeo di Spettroscopie Non-Lineari (Italy); Riccardo Fantechi, Simone Morselli, Mauro Gacci, Marco Carini, Univ. degli Studi di Firenze (Italy); Riccardo Cicchi, Istituto Nazionale di Ottica (Italy); Francesco Saverio Pavone, LENS - Lab. Europeo di Spettroscopie Non-Lineari (Italy)

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The temporal correlation transfer simulation in a tissue model with anisotropic scattering patterns for the blood flow analyses

Paper 10685-72

Time: 3:50 PM - 4:05 PM

Author(s): Vladimir L. Kuzmin, Alexey Valkov, Saint-Petersburg State Polytechnical Univ. (Russian Federation); Leonid Zubkov, Drexel Univ. (United States)

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Depth profiling of stratum corneum hydration and lipids in vivo: comparison between short-wave infrared spectroscopic and biophysical measurements

Paper 10685-73

Time: 4:05 PM - 4:20 PM

Author(s): Anna Ezerskaya, Philips Research (Netherlands), Technische Univ. Delft (Netherlands); Silvania Pereira, Paul Urbach, Technische Univ. Delft (Netherlands); Babu Varghese, Philips Research (Netherlands)

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The portable 'hand-held' digital ophthalmoscope: a new type of high resolution hand held retinal imaging instrument

Paper 10685-74

Time: 4:20 PM - 4:35 PM

Author(s): Peter Bryanton-Cross, The Univ. of Warwick (United Kingdom), Optical Diagnostics Ltd. (United Kingdom); Brenda Dr Timmerman, Mr (United Kingdom)

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Novel nanomaterials for applications in cancer imaging

Paper 10685-75

Time: 4:35 PM - 4:50 PM

Author(s): Michal M. Godlewski, Paula Kielbik, Jaroslaw Kaszewski, Emanuel Borgstrom, Warsaw Univ. of Life Sciences SGGW (Poland); Bartlomiej S. Witkowski, Institute of Physics, Polish Academy of Sciences (Poland); Zdzislaw Gajewski, Warsaw Univ. of Life Sciences SGGW (Poland); Marek Godlewski, Institute of Physics, Polish Academy of Sciences (Poland)

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Brillouin micro-elastography for three-dimensional, nonintrusive studies of zebrafish spinal cord (Conference Presentation)

Paper 10685-76

Time: 4:50 PM - 5:05 PM

Author(s): Jürgen W. Czarske, Jochen Guck, Raimund Schlüßler, Stephanie Möllmert, TU Dresden (Germany)

[Add To My Schedule](#) **Early stage detection of precancer using variational mode decomposition and artificial neural network**

Paper 10685-77

Time: 5:05 PM - 5:20 PM

Author(s): Sawon Pratiher, Indian Institute of Technology Kanpur (India); Sabyasachi Mukhopadhyay, Indian Institute of Science Education and Research Kolkata (India); Souvik Hazra, EURECOM (France); Ritwik Barman, Indian Institute of Science Education and Research Kolkata (India); Gautham Pasupuleti, Biodesign Innovation labs Private Limited (India); Nirmalya Ghosh, Prasanta K. Panigrahi, Indian Institute of Science Education and Research Kolkata (India)

[Add To My Schedule](#) **The use of microbubbles as the diffuse optical imaging contrast agents**

Paper 10685-78

Time: 5:20 PM - 5:35 PM

Author(s): Homa Assadi, Ryerson Univ. (Canada)

[Add To My Schedule](#) **Spatially resolved diffuse optical correlation spectroscopy (SR-DOCS) for quantitative assessment of skin tissue perfusion matrix**

Paper 10685-79

Time: 5:35 PM - 5:50 PM

Author(s): Sujatha Narayanan Unni, Vysakh Vasudevan, Kavyakantha R.S., Indian Institute of Technology Madras (India)

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Session PSWed: Posters-Wednesday

Wednesday 25 April 2018

5:45 PM - 7:30 PM

Location: Hall Rhin

Conference attendees are invited to attend the Photonics Europe poster session on Wednesday 18.00 to 19.30. Posters will be on display after 10.00 Wednesday 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>.

Insight into microenvironment of tumor on the microscopic level with a focus on cancer-associated fibroblasts

Paper 10685-15

Time: 5:45 PM - 7:30 PM

Author(s): Irina N. Druzhkova, Maria Lukina, Varvara Dudenkova, Lubov Shimolina, Elena V. Zagaynova, Marina V. Shirmanova, Nizhny Novgorod State Medical Academy (Russian Federation)

[Add To My Schedule](#) **Arterial pulses assessed with FBG based films: a smart skin approach**

Paper 10685-31

Time: 5:45 PM - 7:30 PM

Author(s): Cátia J. Leitão, Univ. de Aveiro (Portugal); M. Fátima Domingues, Univ. de Aveiro (Portugal), Instituto de Telecomunicações (Portugal); Susana Novais, Univ. de Aveiro (Portugal); Cátia Tavares, Instituto de Telecomunicações (Portugal); João Lemos Pinto, Univ. de Aveiro (Portugal); Carlos Marques, Paulo Antunes, Univ. de Aveiro (Portugal), Instituto de Telecomunicações (Portugal)

[Add To My Schedule](#) **Multiphoton tomography and multimodal OCT for *in vivo* visualization of oral malignancy in the hamster cheek pouch**

Paper 10685-68

Time: 5:45 PM - 7:30 PM

Author(s): Vadim Elagin, Maria Karabut, Elena B. Kiseleva, Marina A. Sirotkina, Nizhny Novgorod State Medical Academy (Russian Federation); Varvara Dudenkova, N.I. Lobachevsky State Univ. of Nizhni Novgorod (Russian Federation); Nadezhda Pavlova, Sergey S. Kuznetsov, Nizhny Novgorod State Medical Academy (Russian Federation); Lev A. Matveev, Alexander A. Moiseev, Nizhny Novgorod State Medical Academy (Russian Federation), Institute of Applied Physics of the Russian Academy of Sciences (Russian Federation); Anastasia Shumilova, Nizhny Novgorod State Medical Academy (Russian Federation), N.I. Lobachevsky State Univ. of Nizhni Novgorod (Russian Federation); Felix Feldchtein, Elena V. Zagaynova, Nizhny Novgorod State Medical Academy (Russian Federation); I. Alex Vitkin, Nizhny Novgorod State Medical Academy (Russian Federation), Univ. of Toronto (Canada); Natalia D. Gladkova, Nizhny Novgorod State Medical Academy (Russian Federation)

[Add To My Schedule](#) **Bedsore revitalization by laser therapy (LLLT)**

Paper 10685-101

Time: 5:45 PM - 7:30 PM

Author(s): Mohammad Nazrul Islam, Shaheed Suhrawardy Medical College and Hospital (Bangladesh)

[Add To My Schedule](#) **Eating habits characterization with NIR spectroscopy and bioimpedance wearable sensor**

Paper 10685-102

Time: 5:45 PM - 7:30 PM

Author(s): Vladislav Lychagov, Samsung Russia Research Institute (Russian Federation); Konstantin Lychagov, Mikhail Popov, Samsung R&D Institute Russia (Russian Federation)

[Add To My Schedule](#) **Experimental and theoretical evaluation of the trapping performance of polymeric lensed optical fibers: single biological cells versus synthetic structures**

Paper 10685-103

Time: 5:45 PM - 7:30 PM

Author(s): Joana I. Paiva, INESC TEC (Portugal); Univ. do Porto (Portugal); Rita S. R. Ribeiro, 4Dcell (France); Elvesys (France); Pedro A. S. Jorge, Carla C. Rosa, INESC TEC (Portugal); Univ. do Porto (Portugal); Maria M. Azevedo, Paula Sampaio, i3S - Instituto de Investigação e Inovação em Saúde (Portugal); Joao P. S. Cunha, INESC TEC (Portugal), Univ. do Porto (Portugal)

[Add To My Schedule](#) **Interaction of upconversion luminescent nanoparticles with tissues and organs**

Paper 10685-104

Time: 5:45 PM - 7:30 PM

Author(s): Irina Yu Yanina, Elena K. Volkova, Saratov State Univ. (Russian Federation); Tomsk State Univ. (Russian Federation); Elena A. Sagaidachnaya, Saratov State Univ. (Russian Federation); Nikita A. Navolokin, Dmitrii A. Mudrak, Saratov State Medical Univ. (Russian Federation); Andrei M. Zakharevich, Saratov State Univ. (Russian Federation); Vyacheslav I. Kochubey, Saratov State Univ. (Russian Federation); Tomsk State Univ. (Russian Federation); Valery V. Tuchin, Saratov State Univ. (Russian Federation); Tomsk State Univ. (Russian Federation); Institute of Precision Mechanics and Control RAS (Russian Federation)

[Add To My Schedule](#) **Statistical classifiers on local binary patterns for optical diagnosis of diabetic retinopathy**

Paper 10685-105

Time: 5:45 PM - 7:30 PM

Author(s): Sabyasachi Mukhopadhyay, Sawon Pratiher, Indian Institute of Science Education and Research Kolkata (India); Sukanya Mukherjee, UEM Kolkata (India); Gautham Pasupuleti, Biodesign Innovation labs Private Limited (India); Ritwik Barman, Indian Institute of Science Education and Research Kolkata (India); Jay Chhablani, LV Prasad Eye Institute (India); Prasanta K. Panigrahi, Indian Institute of Science Education and Research Kolkata (India)

[Add To My Schedule](#) **Photonic immobilization techniques used for the detection of cardiovascular disease biomarkers**

Paper 10685-106

Time: 5:45 PM - 7:30 PM

Author(s): Odete Sofia Gonçalves, Aalborg Univ. (Denmark); María-José Bañuls, Rafael Alonso, Pilar Jiménez-Meneses, Ángel Maquieira, Instituto Interuniversitario de Recocimiento Molecular y Desarrollo Tecnológico (IDM) (Spain); Henrik Vorum, Steffen B. Petersen, Maria Teresa Neves-Petersen, Aalborg Univ. (Denmark)

[Add To My Schedule](#) **Nanoparticle-induced aggregation of red blood cells probed with optical tweezers**

Paper 10685-108

Time: 5:45 PM - 7:30 PM

Author(s): Tatiana I. Avsieva, Alexey Popov, Alexander Bykov, Igor A. Meglinski, Univ. of Oulu (Finland)

[Add To My Schedule](#) **Peculiarities of local blood microcirculation in patients with psoriasis**

Paper 10685-109

Time: 5:45 PM - 7:30 PM

Author(s): Viktor V. Dremin, Mariya A. Filina, Elena V. Zharkikh, Igor O. Kozlov, Orel State Univ. named after I.S. Turgenev (Russian Federation); Evgeny A. Zherebtsov, Aston Univ. (United Kingdom); Elena V. Potapova, Orel State Univ. named after I.S. Turgenev (Russian Federation); Nadezda S. Malaya, Natalia Y. Yakushkina, Orel Dermatovenerologic Dispensary (Russian Federation); Irina A. Snimshchikova, Andrey V. Dunaev, Orel State Univ. named after I.S. Turgenev (Russian Federation)

[Add To My Schedule](#) **Monitoring of fibrinogen in blood using double slot hybrid plasmonic waveguide**

Paper 10685-111

Time: 5:45 PM - 7:30 PM

Author(s): Lokendra Singh, Santosh Kumar, DIT Univ. (India); Nan-Kuang Chen, National United Univ. (Taiwan)

[Add To My Schedule](#) **Optical breast spectroscopy enabled prescreening of women for breast cancer with a focus on low resource setting**

Paper 10685-112

Time: 5:45 PM - 7:30 PM

Author(s): Lothar D. Lilge, Jane Walter, Univ. Health Network (Canada); Julia Knight, Samuel Lunenburg Research Institute, Mount Sinai Hospital (Canada); Michelle Nielsen, Brian C. Wilson, Univ. Health Network (Canada)

[Add To My Schedule](#) **A method for skin malformation classification by combining multispectral and skin autofluorescence imaging**

Paper 10685-113

Time: 5:45 PM - 7:30 PM

Author(s): Ilze Lihacova, Univ. of Latvia (Latvia); Katrina Bolochko, Riga Technical Univ. (Latvia); Emilia V. Plorina, Marta Lange, Alexey Lihachev, Univ. of Latvia (Latvia); Dmitrijs Blizniuk, Riga Technical Univ. (Latvia); Alexander Derjaba, Riga Eastern University Hospital, Oncology Centre of Latvia (Latvia)

[Add To My Schedule](#) **OCT-based characterization of the nonlinear properties of biological tissues in various states**

Paper 10685-114

Time: 5:45 PM - 7:30 PM

Author(s): Alexandr A. Sovetsky, Institute of Applied Physics of the Russian Academy of Sciences (Russian Federation); Ekaterina V. Gubarkova, Nizhny Novgorod State Medical Academy (Russian Federation); Lev A. Matveev, Alexander L. Matveyev, Institute of Applied Physics of the Russian Academy of Sciences (Russian Federation); Marina A. Sirotkina, Natalia D. Gladkova, Nizhny Novgorod State Medical Academy (Russian Federation); Vladimir Y. Zaitsev, Institute of Applied Physics of the Russian Academy of Sciences (Russian Federation)

[Add To My Schedule](#)

Direct and label-free gram classification of bacterial colonies on agar using hyperspectral imaging

Paper 10685-115

Time: 5:45 PM - 7:30 PM

Author(s): Rony Midahuen, Philippine Barlas, Corine Fulchiron, Eric Laloum, Pierre Mahé, Denis F. Leroux, bioMérieux SA (France)

[Add To My Schedule](#)

An automated preprocessing method based on multiple wavelength measurements for image reconstruction of ultrasound-guided DOT

Paper 10685-116

Time: 5:45 PM - 7:30 PM

Author(s): Murad Althobaiti, Imam Abdulrahman Bin Faisal Univ. (Saudi Arabia); Quing Zhu, Univ. of Connecticut (United States)

[Add To My Schedule](#)

Optical fibre ultrasound transmitters using polydimethylsiloxane (PDMS) composites with wavelength-selective inks

Paper 10685-117

Time: 5:45 PM - 7:30 PM

Author(s): Richard J. Colchester, Sacha Noimark, Erwin J. Alles, Sunish J. Mathews, Univ. College London (United Kingdom); Malcolm C. Finlay, Queen Mary Univ. of London (United Kingdom), Barts Health NHS Trust (United Kingdom); Edward Z. Zhang, Paul C. Beard, Ivan P. Parkin, Sébastien Ourselin, Ioannis Papakonstantinou, Adrien E. Desjardins, Univ. College London (United Kingdom)

[Add To My Schedule](#)

Pork spoilage examination by visible and near-infrared spectroscopy

Paper 10685-118

Time: 5:45 PM - 7:30 PM

Author(s): Motahareh Peyvasteh, Alexey Popov, Aleksander Bykov, Igor A. Meglinski, Optoelectronics and Measurement Techniques Lab. (Finland)

[Add To My Schedule](#)

Multimodal OCT characterization of human breast cancer morphological types: preliminary study

Paper 10685-119

Time: 5:45 PM - 7:30 PM

Author(s): Ekaterina V. Gubarkova, Nizhny Novgorod State Medical Academy (Russian Federation); Alexandr A. Sovetsky, Institute of Applied Physics of the Russian Academy of Sciences (Russian Federation); Lev A. Matveev, Nizhny Novgorod State Medical Academy (Russian Federation), Institute of Applied Physics of the Russian Academy of Sciences (Russian Federation); Alexander L. Matveyev, Institute of Applied Physics of the Russian Academy of Sciences (Russian Federation); Vladimir Y. Zaitsev, Nizhny Novgorod State Medical Academy (Russian Federation), Institute of Applied Physics Russian Academy of science (Russian Federation); Alexander A. Moiseev, Nizhny Novgorod State Medical Academy (Russian Federation), Institute of Applied Physics of the Russian Academy of Sciences (Russian Federation); Dmitry A. Vorontsov, Alexey Y. Vorontsov, Nizhny Novgorod Regional Oncology Hospital (Russian Federation); Sergey S. Kuznetsov, Natalia D. Gladkova, Marina A. Sirotkina, Nizhny Novgorod State Medical Academy (Russian Federation)

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High-speed functional optical-resolution photoacoustic microscopy using stimulated Raman scattering source and contrast agent

Paper 10685-120

Time: 5:45 PM - 7:30 PM

Author(s): Sang-Won Lee, Korea Research Institute of Standards and Science (Korea, Republic of), Korea Univ. of Science and Technology (Korea, Republic of); Soon-Woo Cho, Pusan National Univ. (Korea, Republic of); Heesung Kang, Korea Research Institute of Standards and Science (Korea, Republic of); Sang Min Park, Pusan National Univ. (Korea, Republic of); Tae Geol Lee, Korea Research Institute of Standards and Science (Korea, Republic of); Chang-Seok Kim, Pusan National Univ. (Korea, Republic of)

[Add To My Schedule](#)

Optical properties of colorectal muscle in visible/NIR range

Paper 10685-122

Time: 5:45 PM - 7:30 PM

Author(s): Isa Carneiro, Sónia Carvalho, Rui Henrique, Luís Oliveira, IPO-PORTO (Portugal); Valery V. Tuchin, Saratov State Univ. (Russian Federation)

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Fluorescent properties of nanodiamonds in result of interactions of nanodiamonds with biomacromolecules in water

Paper 10685-123

Time: 5:45 PM - 7:30 PM

Author(s): Ekaterina Vervald, Alexey Vervald, Kirill A. Laptinskiy, Tatiana Dolenko, M.V. Lomonosov Moscow State Univ. (Russian Federation)

[Add To My Schedule](#)

Visual assessment criteria of microstructural ex vivo co-and cross-polarized optical coherence tomography images in gliomas

Paper 10685-124

Time: 5:45 PM - 7:30 PM

Author(s): Konstantin Yashin, Privalzhsky Federal Research Ctr. (Russian Federation); Elena B. Kiseleva, Ekaterina V. Gubarkova, Nizhny Novgorod State Medical Academy (Russian Federation); Alexander A. Moiseev, Institute of Applied Physics of the Russian Academy of Sciences (Russian Federation); Sergey S. Kuznetsov, Nizhny Novgorod State Medical Academy (Russian Federation); Igor A. Medyanik, Privalzhsky Federal Research Ctr. (Russian Federation); Nikolay N. Karyakin, Privalzhsky Research Medical University (Russian Federation); Elena V. Zagaynova, Nizhny Novgorod State Medical Academy (Russian Federation); Leonid Y. Kravets, Privalzhsky Federal Research Ctr. (Russian Federation); Natalia D. Gladkova, Nizhny Novgorod State Medical Academy (Russian Federation)

[Add To My Schedule](#)

Diffuse reflectance spectroscopy for determination of optical properties and chromophore concentrations of mice internal organs in the range of 350 nm to 1860 nm

Paper 10685-125

Time: 5:45 PM - 7:30 PM

Author(s): Marcelo Saito Nogueira, Tyndall National Institute (Ireland), Univ. College Cork (Ireland); Michael Raju, Jacqueline Gunther, Konstantin Grygoryev, Katarzyna Komolibus, Huihui Lu, Stefan Andersson-Engels, Tyndall National Institute (Ireland)

[Add To My Schedule](#) **Vibrational spectroscopy of tissue-engineered structures based on proteins, chitosan, and carbon nanotube conjugates**

Paper 10685-126

Time: 5:45 PM - 7:30 PM

Author(s): Aleksandr Alexandrovich Polokhin, Yuliya Fedorova, Alexander Gerasimenko, National Research Univ. of Electronic Technology (Russian Federation)

[Add To My Schedule](#) **Development of the experimental setup for multispectral nanoparticle tracking analysis**

Paper 10685-127

Time: 5:45 PM - 7:30 PM

Author(s): Pavel V. Shalaev, Bogdan Kvasnov, Sergey Dolgushin, Sergey Tereshchenko, National Research Univ. of Electronic Technology (Russian Federation)

[Add To My Schedule](#) **Design of the stand for in vivo skin surface study by scattered ellipsometry method**

Paper 10685-128

Time: 5:45 PM - 7:30 PM

Author(s): Anastasiia B. Bulykina, Victoria Ryzhova, Valery Korotaev, Nikita Samokhin, Elena A. Sycheva, ITMO Univ. (Russian Federation)

[Add To My Schedule](#) **Analysis of the microtubule electrical transmission from the mathematical crystal theory approach: is it feasible using transport electrical properties to detect diseases?**

Paper 10685-129

Time: 5:45 PM - 7:30 PM

Author(s): Noemí Sánchez Castro, Benemérita Univ. Autónoma de Puebla (Mexico), École d'optométrie, Univ. of Montreal (Canada); Martha A. Palomino Ovando, Benemérita Univ. Autónoma de Puebla (Mexico); Kanad Ray, Amity Institute of Applied Sciences, Amity Univ. (India); Anirban Bandyopadhyay, National Institute for Materials Science (Japan); Jocelyn Faubert, J. Eduardo Lugo Arce, École de Optométrie, Univ. of Montreal (Canada)

[Add To My Schedule](#) **Study of photodynamic diagnosis for peritoneal metastasis using talaporfin sodium**

Paper 10685-130

Time: 5:45 PM - 7:30 PM

Author(s): Kensho Suzuki, Liming Li, Chitose Institute of Science and Technology (Japan)

[Add To My Schedule](#) **Component analysis of gallstones using FE-SEM and EDS**

Paper 10685-131

Time: 5:45 PM - 7:30 PM

Author(s): Hajime Mizumoto, Chitose Institute of Science and Technology (Japan)

[Add To My Schedule](#) **Photoacoustic microscopy with transmissive adaptive optics using liquid crystal**

Paper 10685-132

Time: 5:45 PM - 7:30 PM

Author(s): Yusuke Notsuka, Saga Univ. (Japan); Makoto Kurihara, Nobuyuki Hashimoto, Citizen Watch Co., Ltd. (Japan); Yoshinori Harada, Kyoto Prefectural Univ. of Medicine (Japan); Eiji Takahashi, Yoshihisa Yamaoka, Saga Univ. (Japan)

[Add To My Schedule](#) **A heuristic algorithm to calculate optical properties of turbid media**

Paper 10685-133

Time: 5:45 PM - 7:30 PM

Author(s): Marius Hinsberger, Univ. des Saarlandes (Germany); Stefan Naumann, Klaus-Uwe Gollmer, Hochschule Trier (Germany); Achim Langenbucher, Bernhard Schick, Gentiana I. Wenzel, Univ. des Saarlandes (Germany)

[Add To My Schedule](#) **In vivo study of skin cancers with dermatoscopy, hyperspectral imaging and Raman spectroscopy**

Paper 10685-134

Time: 5:45 PM - 7:30 PM

Author(s): Ivan A. Bratchenko, Samara Univ. (Russian Federation); Alexander A. Moryatov, Samara State Medical Univ. (Russian Federation); Yulia A. Khristoforova, Dmitry N. Artemyev, Oleg O. Myakinin, Samara Univ. (Russian Federation); Sergey V. Kozlov, Oleg I. Kaganov, Samara State Medical Univ. (Russian Federation); Valery P. Zakharov, Samara Univ. (Russian Federation)

[Add To My Schedule](#) **Stimulation of the specific conductivity of the biocompatible nanomaterial layers by laser irradiation**

Paper 10685-135

Time: 5:45 PM - 7:30 PM

Author(s): Levan Ichkitidze, National Research Univ. of Electronic Technology (Russian Federation); Olga Glukhova, Georgy Savostyanov, Saratov State Univ. (Russian Federation); Alexander Gerasimenko, Vitaly Podgaetsky, Sergey Selishchev, National Research Univ. of Electronic Technology (Russian Federation)

[Add To My Schedule](#) 

Relationship between NIR laser power and the human forehead tissue backscattering image features

Paper 10685-136

Time: 5:45 PM - 7:30 PM

Author(s): Jirapong Manit, Floris Ernst, Achim Schweikard, Univ. zu Lübeck (Germany)

[Add To My Schedule](#) 

Feasibility study of polarization imaging and confocal fluorescence microscopy for histology analysis of soft tissue neoplasia

Paper 10685-137

Time: 5:45 PM - 7:30 PM

Author(s): Tsanislava I. Genova-Hristova, Institute of Electronics (Bulgaria); Thomas Sang Hyuk Yoo, Hee Ryung Lee, Ecole Polytechnique (France), Univ. Paris-Saclay (France), Ctr. National de la Recherche Scientifique (France); Ekaterina G. Borisova, Institute of Electronics (Bulgaria); Enric Garcia-Caurel, Ecole Polytechnique (France), Univ. Paris-Saclay (France), Ctr. National de la Recherche Scientifique (France); Razvigor Ossikovski, Tatiana Novikova, Ecole Polytechnique (France), Univ. Paris-Saclay (France), Ctr. National de la Recherche Scientifique (France); Oxana Semyachkina-Glushkovskaya, Daniil Brataшov, Dmitry Gorin, Saratov State Univ. (Russian Federation); Ivan Terziev, Univ. Hospital "Tsaritsa Yoanna-ISUL" (Bulgaria)

[Add To My Schedule](#) 

Optical UV-VIS-NIR spectroscopy of benign, dysplastic and malignant cutaneous lesions ex vivo

Paper 10685-138

Time: 5:45 PM - 7:30 PM

Author(s): Ekaterina G. Borisova, Tsanislava I. Genova-Hristova, Institute of Electronics (Bulgaria); Petranka Troyanova, Ivan Terziev, Univ. Hospital "Tsaritsa Yoanna-ISUL" (Bulgaria); Elina Genina, Alexey Bashkatov, Oxana Semyachkina-Glushkovskaya, Valery V. Tuchin, Saratov State Univ. (Russian Federation); Latchezar Avramov, Institute of Electronics (Bulgaria)

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The laser welding of the nanocomposites with biotissues of the cardiovascular system

Paper 10685-139

Time: 5:45 PM - 7:30 PM

Author(s): Dmitry I. Ryabkin, National Research Univ. of Electronic Technology (Russian Federation); Nadezhda A. Taricina, National Research University of Electronic Technology (Russian Federation); Alexander Yu Gerasimenko, National Research University of Electronic Technology (Russian Federation), I.M. Sechenov First Moscow State Medical University (Russian Federation); Evgeny S. Piyankov, National Research University of Electronic Technology (Russian Federation); Vitaly Podgaetsky, National Research Univ. of Electronic Technology (Russian Federation)

[Add To My Schedule](#) 

Multispectral analysis and characterization of biological tissues for the evaluation of ocular changes derived from folic acid deficiency

Paper 10685-140

Time: 5:45 PM - 7:30 PM

Author(s): Ouafa Sijilmassi, José Manuel López-Alonso, Pablo Guillén Montesdeoca, María del Carmen Barrio Asensio, Aurora Del Río Sevilla, Univ. Complutense de Madrid (Spain)

[Add To My Schedule](#) 

Double-snapshot mapping of up to five skin chromophores

Paper 10685-141

Time: 5:45 PM - 7:30 PM

Author(s): Ilze Ošiņa, Raimonds Ciems, Kalvis Lauberts, Edgars Kvēsis-Kippe, Janis Spigulis, Univ. of Latvia (Latvia)

[Add To My Schedule](#) 

Optical monitoring of cell migration processes in a 3D scaffold

Paper 10685-142

Time: 5:45 PM - 7:30 PM

Author(s): Ines Delfino, Univ. degli Studi della Tuscia (Italy); Marianna Portaccio, Antonella D'Agostino, Marcella Cammarota, Ferdinando Campitiello, Chiara Schiraldi, Univ. degli Studi della Campania Luigi Vanvitelli (Italy); Maria Lepore, Seconda Univ. degli Studi di Napoli (Italy)

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Snapshot hyperspectral system for noninvasive skin blood oxygen saturation monitoring

Paper 10685-143

Time: 5:45 PM - 7:30 PM

Author(s): Uldis Rubins, Zbignevs Marcinkevics, Janis Cimurs, Andris Grabovskis, Edgars Kvēsis-Kippe, Univ. of Latvia (Latvia)

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Assessment of oxidative stress and metabolic rates in liver grafts using time-resolved fluorescence spectroscopy

Paper 10685-144

Time: 5:45 PM - 7:30 PM

Author(s): Marcelo Saito Nogueira, Alessandro Cosci, Instituto de Física de São Carlos, Univ. of São Paulo (Brazil); Cristina Kurachi, Instituto de Física de São Carlos (Brazil)

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Refraction, fluorescence, and Raman spectroscopy of normal and glycated hemoglobin

Paper 10685-145

Time: 5:45 PM - 7:30 PM

Author(s): Ekaterina N. Lazareva, Saratov State Univ. (Russian Federation), Immanuel Kant Baltic Federal Univ. (Russian Federation), National Research Tomsk State Univ. (Russian Federation); Andrey Y. Zyubin, Ilya G. Samusev, Immanuel Kant Baltic Federal Univ. (Russian Federation); Vasiliy A. Slezkin,

Kaliningrad State Technical Univ. (Russian Federation); Vyacheslav I. Kochubey, Saratov State Univ. (Russian Federation), National Research Tomsk State Univ. (Russian Federation); Valery V. Tuchin, Saratov State Univ. (Russian Federation), National Research Tomsk State Univ. (Russian Federation), Institute of Precision Mechanics and Control, Russian Academy of Sciences (Russian Federation)

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Application of portable fluorescence reader for evaluation of skin autofluorescence in patients with age-related macular degeneration and cataract

Paper 10685-146

Time: 5:45 PM - 7:30 PM

Author(s): Ivan A. Bratchenko, Vladimir N. Grishanov, Dmitriy V. Kornilin, Valery P. Zakharov, Samara Univ. (Russian Federation); Peter A. Lebedev, Igor V. Malov, Elena S. Pshenitsina, Elena V. Baykina, Samara State Medical Univ. (Russian Federation)

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Optical design improvement for noncontact skin cancer diagnostic device

Paper 10685-147

Time: 5:45 PM - 7:30 PM

Author(s): Emilia V. Plorina, Institute of Atomic Physics and Spectroscopy, Univ. of Latvia (Latvia); Dmitrijs Bliznaks, Riga Technical Univ. (Latvia); Aleksandrs Derjabo, Alexey Lihachev, Ilze Lihacova, Ilze Ošiņa, Marta Lange, Institute of Atomic Physics and Spectroscopy, Univ. of Latvia (Latvia)

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Convolutional neural networks for diagnostics skin cancer on images of optical coherence tomography

Paper 10685-148

Time: 5:45 PM - 7:30 PM

Author(s): Dmitry S. Raupov, Ivan A. Bratchenko, Valery P. Zakharov, Samara Univ. (Russian Federation)

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Raman spectral features of human body fluids from the patients with malignant tumors and correlation with biochemical analysis results

Paper 10685-149

Time: 5:45 PM - 7:30 PM

Author(s): Lyudmila A. Shamina, Ivan A. Bratchenko, Dmitry N. Artemyev, Oleg O. Myakinin, Samara Univ. (Russian Federation); Alexander A. Moryatov, Samara State Medical Univ. (Russian Federation); Andrey E. Orlov, Samara Regional Clinical Oncology Dispensary (Russian Federation); Sergey V. Kozlov, Valery P. Zakharov, Samara State Medical Univ. (Russian Federation)

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Effect of excitation wavelength and light exposure time on quantum dots luminescent properties

Paper 10685-150

Time: 5:45 PM - 7:30 PM

Author(s): Julie Hottechamps, Univ. de Liège (Belgium); Thomas Noblet, Christophe Humbert, Univ. Paris-Sud 11 (France); Laurent Dreesen, Univ. de Liège (Belgium)

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On-the-fly respiratory cycle estimation method based on photoplethysmography waveform morphology analysis

Paper 10685-151

Time: 5:45 PM - 7:30 PM

Author(s): Sylwester Nowocień, Wroclaw Univ. of Science and Technology (Poland)

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Raman spectra comparative analysis of human tissues excited at 785 nm using PLS method

Paper 10685-152

Time: 5:45 PM - 7:30 PM

Author(s): Dmitry N. Artemyev, Ivan A. Bratchenko, Anastasia Lykina, Samara Univ. (Russian Federation); Vladimir Kukushkin, Institute of Applied Physics of the Russian Academy of Sciences (Russian Federation); Sofya Avramova, Nikolay Aleksandrov, Uriy Kirillov, Sechenov Univ. (Russian Federation); Valery P. Zakharov, Samara Univ. (Russian Federation)

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The performance and stability of titanium dioxide and ethylhexyl methoxycinnamate as sunscreen filter: a comparison study

Paper 10685-153

Time: 5:45 PM - 7:30 PM

Author(s): Chun Ho Tan, Mohd Zubir Mat Jafri, Ahmad Fairuz Omar, Wan Maryam Wan Ahmad Kamil, Univ. Sains Malaysia (Malaysia)

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VLC-based safe, low-cost, and accurate healthcare system for video EEG using colour constellation scheme

Paper 10685-154

Time: 5:45 PM - 7:30 PM

Author(s): Dil Nashin Anwar, Anand Srivastava, Indian Institute of Technology Delhi (India)

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Cardiovascular effects of mannitol infusion: a comparison study performed on mouse and human

Paper 10685-155

Time: 5:45 PM - 7:30 PM

Author(s): Teemu S. Myllylä, Mika Kaakinen, Aleksandra Zienkiewicz, Jari Jukkola, Erkki Vihriala, Vesa Korhonen, Univ. of Oulu (Finland); Outi Kuittinen, Oulu Univ. Hospital (Finland); Lauri Eklund, Univ. of Oulu (Finland); Vesa Kiviniemi, Oulu Univ. Hospital (Finland)

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**Strategic combination of antimicrobial photodynamic therapy with mathematical tools to eradicate Enterococcus faecalis
(Cancelled)**

Paper 10685-156

Time: 5:45 PM - 7:30 PM

Author(s):

Blood flow oscillations as a signature of microvascular abnormalities

Paper 10685-157

Time: 5:45 PM - 7:30 PM

Author(s): Elena V. Zharkikh, Orel State Univ. named after I.S. Turgenev (Russian Federation); Irina Mizeva, Institute of Continuous Media Mechanics (Russian Federation); Irina Makovik, Viktor V. Dremin, Orel State Univ. named after I.S. Turgenev (Russian Federation); Evgeny Zherebtsov, Aston Univ. (United Kingdom); Elena V. Potapova, Andrey V. Dunaev, Orel State Univ. named after I.S. Turgenev (Russian Federation)

[Add To My Schedule](#) **Detection of structural changes based on Mie-scattering analyses of mouse fibroblast L929 cells before and after necrosis**

Paper 10685-158

Time: 5:45 PM - 7:30 PM

Author(s): Tobias Baselt, Westsächsische Hochschule Zwickau (Germany); Clemens Richter, Florian Rudek, Bryan Nelsen, Westsächsische Hochschule Zwickau (Germany), Fraunhofer IWS Dresden (Germany); Andrés Fabián Lasagni, Fraunhofer IWS Dresden (Germany); Peter Hartmann, Fraunhofer IWS Dresden (Germany), Westsächsische Hochschule Zwickau (Germany)

[Add To My Schedule](#) **Verification of NADH content measurements by portable optical diagnostic system in living brain tissue**

Paper 10685-159

Time: 5:45 PM - 7:30 PM

Author(s): Evgeny Zherebtsov, Aston Univ. (United Kingdom); Plamena Angelova, Univ. College London (United Kingdom); Sergei G. Sokolovski, Aston Univ. (United Kingdom); Andrey Abramov, Univ. College London (United Kingdom); Edik U. Rafailov, Aston Univ. (United Kingdom)

[Add To My Schedule](#) **Signal to noise ratio of Raman spectra of biological samples**

Paper 10685-160

Time: 5:45 PM - 7:30 PM

Author(s): Sinead Barton, Bryan Hennelly, National Univ. of Ireland, Maynooth (Ireland)

[Add To My Schedule](#) **Precision farming solutions powered by laser applications****(Cancelled)**

Paper 10685-161

Time: 5:45 PM - 7:30 PM

Author(s):

Non-linear microscopy differentiates normal from pathological breast tissue

Paper 10685-163

Time: 5:45 PM - 7:30 PM

Author(s): Evangelia Gavgiotaki, George Filippidis, Foundation for Research and Technology-Hellas (Greece); Sawas Bovasianos, Sofia Agelaki, Vasilios Georgoulias, Maria N. Tzardi, Irene Athanassakis, Univ. of Crete (Greece)

[Add To My Schedule](#) **Diatomite nanovectors uptake in cancer cells: a Raman imaging study**

Paper 10685-164

Time: 5:45 PM - 7:30 PM

Author(s): Stefano Managò, Consiglio Nazionale delle Ricerche (Italy); Nunzia Migliaccio, Univ. degli Studi di Napoli Federico II (Italy); Monica Terracciano, Michela Napolitano, Istituto per la Microelettronica e Microsistemi (Italy); Nicola Martucci, Univ. degli Studi di Napoli Federico II (Italy); Luca De Stefano, Ivo Rendina, Istituto per la Microelettronica e Microsistemi (Italy); Annalisa Lamberti, Univ. degli Studi di Napoli Federico II (Italy); Ilaria Rea, Istituto per la Microelettronica e Microsistemi (Italy); Anna Chiara De Luca, Consiglio Nazionale delle Ricerche (Italy)

[Add To My Schedule](#) **Investigating the progression of oral cancer using Raman spectroscopy**

Paper 10685-165

Time: 5:45 PM - 7:30 PM

Author(s): Nikki Kuhar, Indian Institute of Science (India); Shaiju S. Nazeer, Sree Chitra Tirunal Institute for Medical Sciences & Technology (India); Rekha V. Kumar, Siva Umapathy, Indian Institute of Science (India)

[Add To My Schedule](#) **Insights into phenotypic antibiotic resistance in E. coli: a Raman spectroscopic approach**

Paper 10685-166

Time: 5:45 PM - 7:30 PM

Author(s): Taru Verma, Dipankar Nandi, Siva Umapathy, Indian Institute of Science (India)

[Add To My Schedule](#) **Selective detection of MT1-MMP using peptide fluorescent gold nanocluster for metastatic cancer imaging**

Paper 10685-168

Time: 5:45 PM - 7:30 PM

Author(s): Minhee Ku, Jaemoon Yang, Yonsei Univ. College of Medicine (Korea, Republic of)

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Dynamical and structural properties of flavin adenine dinucleotide in aqueous solutions

Paper 10685-169

Time: 5:45 PM - 7:30 PM

Author(s): Ines Delfino, Univ. degli Studi della Tuscia (Italy); Rosario Esposito, Univ. degli Studi di Napoli Federico II (Italy); Marianna Portaccio, Maria Lepore, Univ. degli Studi della Campania Luigi Vanvitelli (Italy)

[Add To My Schedule](#) **Laser doppler spectrum decomposition applied in diagnostics of microcirculatory disturbances**

Paper 10685-170

Time: 5:45 PM - 7:30 PM

Author(s): Igor O. Kozlov, Orel State Univ. named after I.S. Turgenev (Russian Federation); Evgeny A. Zhrebtssov, Aston Univ. (United Kingdom); Victor V. Dremin, Angelina I. Zhrebtssova, Elena V. Zharkikh, Andrey V. Dunaev, Orel State Univ. named after I.S. Turgenev (Russian Federation); Edik U. Rafailov, Aston Univ. (United Kingdom)

[Add To My Schedule](#) **Application of the fluorescence spectroscopy for the analysis of the state of abdominal cavity organs tissues in mini-invasive surgery**

Paper 10685-171

Time: 5:45 PM - 7:30 PM

Author(s): Ksenia Kandurova, Victor V. Dremin, Orel State Univ. named after I.S. Turgenev (Russian Federation); Evgeny A. Zhrebtssov, Aston Univ. (United Kingdom); Elena V. Potapova, Andrey V. Dunaev, Orel State Univ. named after I.S. Turgenev (Russian Federation); Andrian V. Mamoshin, Alexandr L. Alyanov, Orel State Univ. named after I.S. Turgenev (Russian Federation), Orel Regional Clinical Hospital (Russian Federation); Vadim F. Muradyan, Orel Regional Clinical Hospital (Russian Federation)

[Add To My Schedule](#) **Optimisation of multimodal optical measurements for assessment of the dynamics in cutaneous blood flow and fluorescence in patients with diabetes**

Paper 10685-172

Time: 5:45 PM - 7:30 PM

Author(s): Elena V. Zharkikh, Viktor V. Dremin, Orel State Univ. named after I.S. Turgenev (Russian Federation); Evgeny A. Zhrebtssov, Aston Univ. (United Kingdom); Elena V. Potapova, Andrey V. Dunaev, Orel State Univ. named after I.S. Turgenev (Russian Federation); Viktor V. Sidorov, SPE LAZMA Ltd. (Russian Federation); Alexander I. Krupatkin, Central Scientific-Research Institute of Traumatology and Orthopedics, n.n. Priorova (Russian Federation); Edik U. Rafailov, Aston Univ. (United Kingdom)

[Add To My Schedule](#) **Use of fluorescent optical fibre probe for recording parameters of brain metabolism in rat model**

Paper 10685-173

Time: 5:45 PM - 7:30 PM

Author(s): Olga Stelmashchuk, Evgeniya Seryogina, Gennadii Pivachenko, Alexander Alekseyev, Orel State Univ. named after I.S. Turgenev (Russian Federation); Evgeny A. Zhrebtssov, Aston Univ. (United Kingdom); Andrey Dunaev, Orel State Univ. named after I.S. Turgenev (Russian Federation); Ilya Rafailov, Aston Medical Technology Ltd. (United Kingdom); Evgeny Vorobyev, Alyona Kuznetsova, Elena Kuznetsova, Orel State Univ. named after I.S. Turgenev (Russian Federation); Edik U. Rafailov, Aston Univ. (United Kingdom)

[Add To My Schedule](#) **Evaluation of microvascular disturbances in rheumatic diseases by analysis of skin blood flow oscillations**

Paper 10685-174

Time: 5:45 PM - 7:30 PM

Author(s): Irina N. Makovik, Orel State Univ. named after I.S. Turgenev (Russian Federation); Viktor V. Dremin, Orel State University (Russian Federation), University of Oulu (Finland); Angelina I. Zhrebtssova, Orel State University (Russian Federation); Alexander I. Krupatkin, Priorov National Medical Research Center of Traumatology and Orthopaedics (Russian Federation); Lyudmila S. Khakhicheva, Vadim F. Muradyan, Orel Regional Clinical Hospital (Russian Federation); Igor V. Meglinski, University of Oulu (Finland), Orel State University (Russian Federation); Andrey V. Dunaev, Orel State University (Russian Federation)

[Add To My Schedule](#) **Investigating the effect of singlet oxygen on polymerase activity during modulated irradiation at photodynamic treatment**

Paper 10685-175

Time: 5:45 PM - 7:30 PM

Author(s): Nikita Kaydanov, St Petersburg Academic Univ (Russian Federation); Vladimir Vitalievich Klimenko, St Petersburg Academic Univ (Russian Federation), St. Petersburg clinical scientific and practical center of specialized types of medical care (Russian Federation); Anton K. Emelyanov, St Petersburg Academic Univ (Russian Federation), The Petersburg Nuclear Physics Institute (Russian Federation); Nickolay A. Knyazev, St Petersburg Academic Univ (Russian Federation), Institute of Cytology (Russian Federation); Alexey Bogdanov, ITMO University (Russian Federation), St. Petersburg clinical scientific and practical center of specialized types of medical care (Russian Federation), The Petersburg Nuclear Physics Institute (Russian Federation)

[Add To My Schedule](#) **Evaluation of ring PMUT arrays for photoacoustic imaging**

Paper 10685-176

Time: 5:45 PM - 7:30 PM

Author(s): Ajay Dangi, Pennsylvania State Univ (United States); Shubham Jhadav, Kaustav Roy, Rudra Pratap, Indian Institute of Science (India); Sumit Agrawal, Sri-Rajasekhar Kothapalli, Pennsylvania State Univ (United States)

[Add To My Schedule](#) **Femtosecond semiconductor disk lasers: a promising tool for the future of multiphoton imaging**

Paper 10685-177

Time: 5:45 PM - 7:30 PM

Author(s): Florian M. Emaury, ETH Zurich (Switzerland); Fabian F. Voigt, Univ. Zürich (Switzerland), Neuroscience Center Zurich (Switzerland); Philipp Bethge,

Dominik Waldburger, Sandro M. Link, Stefano Carta, Alexander van der Bourg, ETH Zurich (Switzerland); Fritjof Helmchen, ETH Zurich (Switzerland), Department of Neurophysiology (Switzerland); Ursula Keller, ETH Zurich (Switzerland)

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THURSDAY 26 APRIL

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Hot Topics III

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>

Coffee Break 10:35 AM - 11:00 AM

Session 11: Therapy III

Thursday 26 April 2018

11:00 AM - 12:15 PM

Location: Salon 6

Session Chair: Sylvain Gioux, ICube (France)

Histological examination of the oral mucosa regeneration after fractional diode laser treatment with a wavelength of 980 nm

Paper 10685-80

Time: 11:00 AM - 11:15 AM

Author(s): Andrey V. Belikov, ITMO Univ. (Russian Federation); Luidmila A. Ermolaeva, Dmitriy E. Korzhevsky, Elena S. Sergeeva, Saint Petersburg State Univ. (Russian Federation); Yulia V. Semyashkina, Maria M. Antropova, ITMO Univ. (Russian Federation); Denis Y. Fedotov, Saint Petersburg State Univ. (Russian Federation); Dina A. Sufieva, FSBRI Institute of Experimental Medicine (Russian Federation)

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Analysis of cardiomyocyte regeneration and mechanics via femtosecond nanosurgery and multiphoton microscopy

Paper 10685-81

Time: 11:15 AM - 11:30 AM

Author(s): Dominik Müller, Patrick Heeger, Alexander Heisterkamp, Stefan Michael Klaus Kalies, Leibniz Univ. Hannover (Germany)

[Add To My Schedule](#) 

Development of an optogenetic triggered biohybrid cochlea implant

Paper 10685-82

Time: 11:30 AM - 11:45 AM

Author(s): Patrick Heeger, Stefan Michael Klaus Kalies, Leibniz Univ. Hannover (Germany); Dag Heinemann, Laser Zentrum Hannover e.V. (Germany); Maria Leilani Torres, Alexander Heisterkamp, Leibniz Univ. Hannover (Germany)

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A concept of cryoapplicator based on sapphire shaped crystal enabling control of the ice ball formation using spatially resolved elastic backscattering of light

Paper 10685-83

Time: 11:45 AM - 12:00 PM

Author(s): Evgeniya Dubyanskaya, Institute of Solid State Physics RAS (Russian Federation); Nikita V. Chernomyrdin, Bauman Moscow State Technical University (Russian Federation), Sechenov First Moscow State Medical University (Russian Federation), Prokhorov General Physics Institute of RAS (Russian Federation); Irina N. Dolganova, Institute of Solid State Physics RAS (Russian Federation), Bauman Moscow State Technical University (Russian Federation), Sechenov First Moscow State Medical University (Russian Federation); Andrey A. Kuznetsov, Elena E. Mukhina, Larisa P. Safonova, Aleksander I. Donodin, Bauman Moscow State Technical University (Russian Federation); Irina A. Shikunova, Institute of Solid State Physics RAS (Russian Federation); Kirill I. Zaytsev, Prokhorov General Physics Institute of RAS (Russian Federation), Sechenov First Moscow State Medical University (Russian Federation), Bauman Moscow State Technical University (Russian Federation); Vladimir N. Kurlov, Institute of Solid State Physics RAS (Russian Federation)

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The optimized time of ¹⁸F-THK5351 PET/CT in normal Thai population

Paper 10685-84

Time: 12:00 PM - 12:15 PM

Author(s): Pachara Thonglim, King Mongkut's Institute of Technology Ladkrabang (Thailand); Witaya Sungkarat, Department of Radiology, Faculty of Medicine Ramathibodi Hospital Mahidol University (Thailand); Chanisa Chotipanich, Division of Nuclear Medicine, National Cyclotron and PET Centre, Chulabhorn

Hospital (Thailand); Ratchanok Somphonsane , Suwaphit Phoemphoothanyakit, Prathan Buranasiri, King Mongkut's Institute of Technology Ladkrabang (Thailand)

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Lunch Break 12:15 PM - 1:15 PM

Session 12: Imaging and Spectroscopy

Thursday 26 April 2018

1:15 PM - 3:15 PM

Location: Salon 6

Session Chair: Francesco Saverio Pavone, LENS - Lab. Europeo di Spettroscopia Non-Lineari (Italy)

In vivo detection of reactive oxygen species using Eu-based luminescent nanoparticles

Paper 10685-85

Time: 1:15 PM - 1:30 PM

Author(s): Nicolas Pétri, Mouna Abdesselem, Ecole Polytechnique (France); Valérie Rouffiac, Gustave Roussy (France); Rivo O. Ramodiharilafy, Thierry Gacoin, Ecole Polytechnique (France); Corinne Laplace-Builhé , Gustave Roussy (France); Cédric I. Bouzigues, Antigoni Alexandrou, Ecole Polytechnique (France)

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White-light from soot: closing the gap in the diagnostic market

Paper 10685-86

Time: 1:30 PM - 1:45 PM

Author(s): Hannelore Bové, Univ. Hasselt (Belgium), KU Leuven (Belgium); Christian Steuwe, KU Leuven (Belgium); Nelly Saenen, Leentje Rasking, Univ. Hasselt (Belgium); Tim Nawrot, Univ. Hasselt (Belgium), KU Leuven (Belgium); Maarten Roeflaers, KU Leuven (Belgium); Marcel Ameloot, Univ. Hasselt (Belgium)

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Remote monitoring vital signs using active 3D imaging (Conference Presentation)

Paper 10685-87

Time: 1:45 PM - 2:00 PM

Author(s): Piotr Garbat, Agata Olszewska, Karolina Waledzik, Ryszard Piramidowicz, Warsaw Univ. of Technology (Poland)

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Early arriving photon imaging for locating optical endomicroscopy fibres and medical devices (Conference Presentation)

Paper 10685-88

Time: 2:00 PM - 2:15 PM

Author(s): Michael G. Tanner, Tushar R. Choudhary, Heriot-Watt Univ. (United Kingdom); Tom H. Craven, Bethany Mills, Mark Bradley, Robert K. Henderson, Kevin Dhaliwal, The Univ. of Edinburgh (United Kingdom); Robert R. Thomson, Heriot-Watt Univ. (United Kingdom)

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Laser correlation spectroscopy as a powerful tool to study immune responses

Paper 10685-89

Time: 2:15 PM - 2:30 PM

Author(s): Elina K. Nepomnyashchaya, Elena N. Velichko, Evgenij Aksenov, Saint-Petersburg State Polytechnical Univ. (Russian Federation); Tatyana Bogomaz, Saint Petersburg State Polytechnic Univ. (Russian Federation)

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Single-shot microsecond-resolved spectroscopy of the bacteriorhodopsin photocycle with quantum cascade laser frequency combs (Conference Presentation)

Paper 10685-90

Time: 2:30 PM - 2:45 PM

Author(s): Markus Geiser, IRsweep GmbH (Switzerland); Jessica L. Klocke, Univ. Bielefeld (Germany); Markus Mangold, Pitt Allmendinger, Andreas Hugi, Pierre Jouy, Balint Horvath, IRsweep GmbH (Switzerland); Jérôme Faist, ETH Zurich (Switzerland); Tilman Kottke, Univ. Bielefeld (Germany)

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Salient features of strain incorporation in individual and multicomponent amino acids using confocal Raman spectroscopy

Paper 10685-91

Time: 2:45 PM - 3:00 PM

Author(s): Abigail Casey, Gregory E. Triplett, Virginia Commonwealth Univ. (United States)

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Modular spectroscopy system for medical diagnosis (Conference Presentation)

Paper 10685-92

Time: 3:00 PM - 3:15 PM

Author(s): Iskander Usenov, Christian Nitschke, Technische Univ. Berlin (Germany); Urszula J. Zabarylo, Thaddäus Hocotz, Charité Universitätsmedizin Berlin (Germany); Viacheslav Artyushenko, art photonics GmbH (Germany)

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Coffee Break 3:15 PM - 3:45 PM

Session 13: Imaging VII: Fluorescence

Thursday 26 April 2018

3:45 PM - 5:55 PM

Location: Salon 6

Session Chair: Valery V. Tuchin, Saratov State Univ. (Russian Federation)

Structured illumination for live cell microscopy (Invited Paper)

Paper 10685-93

Time: 3:45 PM - 4:10 PM

Author(s): Verena Richter, Mathis Piper, Michael Wagner, Herbert Schneckenburger, Hochschule Aalen (Germany)

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Novel fluorescent oxides provide insight into the dynamics of nanoparticle mediated drug uptake from the gastro-intestinal tract

Paper 10685-94

Time: 4:10 PM - 4:25 PM

Author(s): Waldemar Lipinski, Aleksandra Ozogowska, Jaroslaw Kaszewski, Zdzislaw Gajewski, Warsaw Univ. of Life Sciences SGGW (Poland); Marek Godlewski, Institute of Physics, Polish Academy of Sciences (Poland); Michal M. Godlewski, Warsaw Univ. of Life Sciences SGGW (Poland)

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Synchronous fluorescence spectroscopy with and without polarization sensitivity for colorectal cancer differentiation

Paper 10685-95

Time: 4:25 PM - 4:40 PM

Author(s): Tsanislava I. Genova-Hristova, Ekaterina G. Borisova, Institute of Electronics (Bulgaria); Nikolay Penkov, Univ. Hospital "Tsaritsa Yoanna-ISUL" (Bulgaria); Borislav Vladimirov, Univ. Hospital "Tsaritsa Yoanna-ISUL" (Bulgaria); Latchezar Avramov, Institute of Electronics (Bulgaria)

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Multimodal non-gadolinium oxide nanoparticles for MRI and fluorescence labelling

Paper 10685-96

Time: 4:40 PM - 4:55 PM

Author(s): Jaroslaw Olszewski, Paula Kielbik, Jaroslaw Kaszewski, Warsaw Univ. of Life Sciences SGGW (Poland); Bartlomiej S. Witkowski, Institute of Physics, Polish Academy of Sciences (Poland); Zdzislaw Gajewski, Warsaw Univ. of Life Sciences SGGW (Poland); Marek Godlewski, Institute of Physics, Polish Academy of Sciences (Poland); Michal M. Godlewski, Warsaw Univ. of Life Sciences SGGW (Poland)

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Measurement of skin autofluorescence by fluorescent spectrometry for diabetes diagnostics and control

Paper 10685-97

Time: 4:55 PM - 5:10 PM

Author(s): Yulia Kononova, Saint Petersburg National Research Univ. of Information Technologies, Mechanics and Optics (Russian Federation), Almazov National Medical Research Ctr. (Russian Federation); Anastasiya G. Arkhipova, Almazov National Medical Research Ctr. (Russian Federation); Garry V. Papayan, Almazov National Medical Research Ctr. (Russian Federation), Pavlov First Saint Petersburg State Medical Univ. (Russian Federation); Mikhail Khodzitsky, Saint Petersburg National Research Univ. of Information Technologies, Mechanics and Optics (Russian Federation); Alina Yu. Babenko, Elena N. Grineva, Almazov National Medical Research Ctr. (Russian Federation), Saint Petersburg National Research Univ. of Information Technologies, Mechanics and Optics (Russian Federation)

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Biodegradable, fluorescent oxide nanocrystals for application in biology and medicine

Paper 10685-98

Time: 5:10 PM - 5:25 PM

Author(s): Paula Kielbik, Bartlomiej Dominiak, Warsaw Univ. of Life Sciences SGGW (Poland); Jaroslaw Kaszewski, Institute of Physics, Polish Academy of Sciences (Poland); Julita Rosowska, Institute of Physics (Poland); Bartlomiej S. S. Witkowski, Institute of Physics, Polish Academy of Sciences (Poland); Mikolaj A. Gralak, Zdzislaw Gajewski, Warsaw Univ. of Life Sciences SGGW (Poland); Marek Godlewski, Institute of Physics, Polish Academy of Sciences (Poland); Michal M. Godlewski, Warsaw Univ. of Life Sciences SGGW (Poland)

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Simple fibre-based dispersion management for two-photon excited fluorescence imaging through an endoscope

Paper 10685-99

Time: 5:25 PM - 5:40 PM

Author(s): Dominik Marti, Konstantinos Dimopoulos, DTU Risø Campus (Denmark); Björn-Ole Meyer, Peter E. Andersen, DTU Fotonik (Denmark)

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Multispectral fibre endoscope imaging system for enhanced visualisation of smartprobes (Conference Presentation)

Paper 10685-100

Time: 5:40 PM - 5:55 PM

Author(s): Helen Parker, The Univ. of Edinburgh (United Kingdom); James M. Stone, Univ. of Bath (United Kingdom); Tom Speight, The Univ. of Edinburgh (United Kingdom); Robert R. Thomson, Heriot-Watt Univ. (United Kingdom); Kevin Dhaliwal, Nikola Krstajić, Michael G. Tanner, The Univ. of Edinburgh (United Kingdom)

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