PROCEEDINGS OF SPIE

SPIDigitalLibrary.org/conference-proceedings-of-spie

Front Matter: Volume 10467

, "Front Matter: Volume 10467," Proc. SPIE 10467, Photonics in Dermatology and Plastic Surgery 2018, 1046701 (25 April 2018); doi: 10.1117/12.2315642

SPIE.

Event: SPIE BiOS, 2018, San Francisco, California, United States

PROGRESS IN BIOMEDICAL OPTICS AND IMAGING

Vol. 19 No. 1

Photonics in Dermatology and Plastic Surgery 2018

**Bernard Choi
Haishan Zeng**
Editors

**27–28 January 2018
San Francisco, California, United States**

Sponsored and Published by
SPIE

Volume 10467

Proceedings of SPIE, 1605-7422, V. 10467

SPIE is an international society advancing an interdisciplinary approach to the science and application of light.

Photonics in Dermatology and Plastic Surgery 2018, edited by Bernard Choi, Haishan Zeng, Proc. of SPIE
Vol. 10467, 1046701 · © 2018 SPIE · CCC code: 1605-7422/18/\$18 · doi: 10.1117/12.2315642

Proc. of SPIE Vol. 10467 1046701-1

The papers in this volume were part of the technical conference cited on the cover and title page. Papers were selected and subject to review by the editors and conference program committee. Some conference presentations may not be available for publication. Additional papers and presentation recordings may be available online in the SPIE Digital Library at SPIEDigitalLibrary.org.

The papers reflect the work and thoughts of the authors and are published herein as submitted. The publisher is not responsible for the validity of the information or for any outcomes resulting from reliance thereon.

Please use the following format to cite material from these proceedings:

Author(s), "Title of Paper," in *Photonics in Dermatology and Plastic Surgery 2018*, edited by Bernard Choi, Haishan Zeng, Proceedings of SPIE Vol. 10467 (SPIE, Bellingham, WA, 2018) Seven-digit Article CID Number.

ISSN: 1605-7422
ISSN: 1996-756X (electronic)

ISBN: 9781510614192
ISBN: 9781510614208 (electronic)

Published by

SPIE

P.O. Box 10, Bellingham, Washington 98227-0010 USA
Telephone +1 360 676 3290 (Pacific Time) · Fax +1 360 647 1445
SPIE.org

Copyright © 2018, Society of Photo-Optical Instrumentation Engineers.

Copying of material in this book for internal or personal use, or for the internal or personal use of specific clients, beyond the fair use provisions granted by the U.S. Copyright Law is authorized by SPIE subject to payment of copying fees. The Transactional Reporting Service base fee for this volume is \$18.00 per article (or portion thereof), which should be paid directly to the Copyright Clearance Center (CCC), 222 Rosewood Drive, Danvers, MA 01923. Payment may also be made electronically through CCC Online at copyright.com. Other copying for republication, resale, advertising or promotion, or any form of systematic or multiple reproduction of any material in this book is prohibited except with permission in writing from the publisher. The CCC fee code 1605-7422/18/\$18.00.

Printed in the United States of America.

Publication of record for individual papers is online in the SPIE Digital Library.

**SPIE. DIGITAL
LIBRARY**
SPIEDigitalLibrary.org

Paper Numbering: *Proceedings of SPIE* follow an e-First publication model. A unique citation identifier (CID) number is assigned to each article at the time of publication. Utilization of CIDs allows articles to be fully citable as soon as they are published online, and connects the same identifier to all online and print versions of the publication. SPIE uses a seven-digit CID article numbering system structured as follows:

- The first five digits correspond to the SPIE volume number.
- The last two digits indicate publication order within the volume using a Base 36 numbering system employing both numerals and letters. These two-number sets start with 00, 01, 02, 03, 04, 05, 06, 07, 08, 09, 0A, 0B ... 0Z, followed by 10-1Z, 20-2Z, etc. The CID Number appears on each page of the manuscript.

Contents

v	<i>Authors</i>
vii	<i>Conference Committee</i>

STRUCTURED LIGHT IMAGING

10467 OC	Assessing the predictive capability of optical imaging techniques, Spatial Frequency Domain Imaging (SFDI) and Laser Speckle Imaging (LSI), to the gold standard of clinical assessment in a controlled animal model [10467-25]
10467 OD	Spatial frequency domain imaging using a snap-shot filter mosaic camera with multi-wavelength sensitive pixels [10467-28]

MICROSCOPY

10467 OM	Multispectral detection of cutaneous lesions using spectroscopy and microscopy approaches [10467-18]
----------	---

WOUND HEALING

10467 ON	Dynamics of controllably induced bruises assessed by diffuse reflectance spectroscopy and pulsed photothermal radiometry [10467-19]
----------	--

SKIN HYDRATION

10467 OR	Depth resolved quantitative profiling of stratum corneum lipids and water content using short-wave infrared spectroscopy [10467-24]
10467 OS	Evaluation of skin moisturizer effects using terahertz time domain imaging [10467-26]

POLARIZATION

10467 OX	Stokes polarimetry probe for skin lesion evaluation: preliminary results [10467-33]
10467 OY	Quantitatively characterizing microstructural variations of skin tissues during ultraviolet radiation damaging process based on Mueller matrix polarimetry [10467-34]
10467 OZ	High sensitivity optical method for objective assessment of the gloss of human skin [10467-44]

POSTER SESSION

- 10467 11 **Fast determination of the spatially distributed photon fluence for light dose evaluation of PDT** [10467-36]
- 10467 12 **Development of high definition OCT system for clinical therapy of skin diseases** [10467-37]
- 10467 13 **Label-free, multi-contrast optical coherence tomography for study of skin melanoma mice in vivo** [10467-38]
- 10467 15 **The use of optical coherence tomography to analyze the efficacy of skin care products** [10467-40]
- 10467 17 **Eigenspace-based minimum variance adaptive beamformer combined with delay multiply and sum: experimental study** [10467-42]

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.

Alfaro-Gomez, M., 0S	Qin, Zhuanping, 11
Avramov, L., 0M	Ras, A., 0Z
Baek, Daeyul, 12	Rojas-Landeros, S. C., 0S
Baldado, M., 0C	Rowland, R., 0C
Bernal, N., 0C	Saager, Rolf B., 0D
Borisova, E., 0M	Salerud, Göran, 0D
Burmeister, D. M., 0C	Semyachkina-Glushkovskaya, O., 0M
Castro-Camus, E., 0S	Seo, Young-Seok, 12
Chang, Chung-Hsing, 13	Sheng, Wei, 0Y
Chen, Wei, 15	Stanciu, G., 0M
Chen, Weiting, 11	Strömberg, Tomas, 0D
Chou, Ya-Shuan, 13	Tchvialeva, Lioudmilla, 0X
Christy, R. J., 0C	Terziev, I., 0M
Daveluy, Steven, 15	Tranca, D., 0M
Dong, Yang, 0Y	Trojanova, P., 0M
Durkin, Anthony J., 0C, 0D	Turani, Zahra, 15
Ezerskaia, Anna, 0R, 0Z	Urbach, H. Paul, 0R, 0Z
Fotouhi, Audrey, 15	Varghese, Babu, 0R, 0Z
Fredriksson, Ingemar, 0D	Verdel, Nina, 0N
Gelovani, Juri, 15	Vidovič, Luka, 0N
Genina, E., 0M	Yan, Panpan, 11
Genova-Hristova, Ts., 0M	Zhao, Huijuan, 11
He, Honghui, 0Y	Zhao, Kuanxin, 11
Irani, Sarosh, 15	
Kalia, Sunil, 0X	
Kennedy, Gordon T., 0D	
Kim, Jung-Hyun, 12	
Kuo, Wen-Chuan, 13	
Lai, Pei-Yu, 13	
Larsson, Marcus, 0D	
Lee, Tim K., 0X	
Li, Tongxin, 11	
Lin, Tim-Han, 13	
Lomova, M., 0M	
Louie, Daniel C., 0X	
Lui, Harvey, 0X	
Ma, Hui, 0Y	
Mahloojifar, Ali, 17	
Majaron, Boris, 0N	
Marin, Ana, 0N	
Martinez-Meza, L. H., 0S	
Mehregan, Darius, 15	
Milanič, Matija, 0N	
Mozaffarzadeh, Moein, 17	
Nasiriavanaki, Mohammadreza, 15, 17	
Orooji, Mahdi, 17	
Pavlova, E., 0M	
Pereira, Silvania F., 0R, 0Z	
Ponticorvo, A., 0C	

Conference Committee

Symposium Chairs

James G. Fujimoto, Massachusetts Institute of Technology
(United States)

R. Rox Anderson, Wellman Center for Photomedicine, Massachusetts
General Hospital (United States) and Harvard Medical School
(United States)

Program Track Chair

Brian Jet-Fei Wong, Beckman Laser Institute and Medical Clinic
(United States)

Conference Chairs

Bernard Choi, Beckman Laser Institute and Medical Clinic
(United States)

Haishan Zeng, The BC Cancer Agency Research Center (Canada)

Conference Program Committee

Anthony J. Durkin, Beckman Laser Institute and Medical Clinic
(United States)

Conor L. Evans, Wellman Center for Photomedicine (United States)

Kristen M. Kelly, University of California, Irvine School of Medicine
(United States)

Milind Rajadhyaksha, Memorial Sloan-Kettering Cancer Center
(United States)

Jessica C. Ramella-Roman, Florida International University
(United States)

Lise Lyngsnes Randeberg, Norwegian University of Science and
Technology (Norway)

InSeok Seo, Johnson & Johnson Consumer Products (United States)

Ruikang K. Wang, University of Washington (United States)

Session Chairs

- 1 Optical Coherence Tomography I
Kristen M. Kelly, Beckman Laser Institute and Medical Clinic
(United States)

- 2 Optical Coherence Tomography II
 Ruikang K. Wang, University of Washington (United States)
- 3 Structured Light Imaging
 Bernard Choi, Beckman Laser Institute and Medical Clinic
 (United States)
 Haishan Zeng, The BC Cancer Agency Research Center (Canada)
- 4 Skin Cancer I
 Kristen M. Kelly, Beckman Laser Institute and Medical Clinic
 (United States)
- 5 Microscopy
 Milind Rajadhyaksha, Memorial Sloan-Kettering Cancer Center
 (United States)
- 6 Wound Healing
 Anthony J. Durkin, Beckman Laser Institute and Medical Clinic
 (United States)
- 7 Skin Hydration
 InSeok Seo, Johnson & Johnson Consumer Products (United States)
- 8 Skin Cancer II
 Lise Lyngsnes Randeberg, Norwegian University of Science and
 Technology (Norway)
- 9 Polarization
 Jessica C. Ramella-Roman, Florida International University
 (United States)
 Joseph Chue-Sang, Florida International University (United States)