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Optical Systems Design 2015: Computational Optics

**Daniel G. Smith
Frank Wyrowski
Andreas Erdmann**
Editors

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Contents

vii	<i>Authors</i>
ix	<i>Conference Committee</i>
xi	<i>Introduction</i>
xiii	<i>"Diffractive optical elements made from photonic metamaterials" (Plenary Paper) [9626-502]</i>

SESSION 1 IMAGING APPLICATIONS I

9630 04	3D imaging and ranging in a snapshot (Invited Paper) [9630-3]
9630 07	Large-scale analytical Fourier transform of photomask layouts using graphics processing units [9630-6]
9630 08	Automated simulation and evaluation of autostereoscopic multiview 3D display designs by time-sequential and wavelength-selective filter barrier [9630-7]

SESSION 2 OPTICAL FIELD PROPAGATION TECHNIQUES

9630 0A	Simulations of general electromagnetic fields propagation through optically anisotropic media [9630-9]
9630 0B	A smooth field decomposition applied to modelling of scattering phenomena [9630-10]
9630 0C	A vectorial ray-based diffraction integral for optical systems [9630-11]
9630 0D	Experimental method of optical coherence characterization in phase-space measurement [9630-12]

SESSION 3 APPLICATIONS IN MEDICINE AND ENERGY HARVESTING

9630 0E	Untangled modes in multimode fibres for flexible microendoscopy (Invited Paper) [9630-13]
9630 0G	Optical properties of textured sheets: an efficient matrix-based modelling approach [9630-15]
9630 0H	Optical tomography by means of regularized MLEM [9630-16]

SESSION 4	NON-IMAGING APPLICATIONS
9630 OK	Wave optics analysis of corner-cube retro-reflectors in near-to-eye displays based on scanning laser projectors [9630-19]
9630 OL	Comparison of modelling techniques for multimode fibers and its application to VCSEL source coupling [9630-20]
SESSION 5	IMAGING APPLICATIONS II
9630 OM	Systematic investigation of the principal and first secondary maxima of ultrashort optical pulses focused by a high numerical aperture aplanatic lens [9630-21]
9630 ON	Micro-optical freeform elements for beam-shaping [9630-22]
9630 OP	Introducing free-function camera calibration model for central-projection and omni-directional lenses [9630-24]
SESSION 6	ELECTROMAGNETIC FIELD METHODS
9630 OQ	Fast integral methods for integrated optical systems simulations: a review (Invited Paper) [9630-25]
9630 OR	Reduced basis method for Maxwell's equations with resonance phenomena [9630-26]
9630 OS	Hp-finite-elements for simulating electromagnetic fields in optical devices with rough textures [9630-27]
9630 OT	Combining ray-tracing and FDTD to enable the simulation of complex optical devices in an iterative simulation process with reduced simulation effort [9630-28]
9630 OU	Topology optimized design of carpet cloaks based on a level set approach [9630-34]
SESSION 7	INVERSE IMAGING PROBLEMS
9630 OV	Single emitter localization analysis in the presence of background (Invited Paper) [9630-29]
9630 OW	Analysis for simplified optics coma effect on spectral image inversion of coded aperture spectral imager [9630-30]
9630 OX	High-resolution microscopy with low-resolution objectives: correcting phase aberrations in Fourier ptychography [9630-31]
9630 OY	Application of Principal Component Analysis to EUV multilayer defect printing [9630-32]

SESSION 8 COMPUTATIONAL OPTICS

- 9630 0Z **A Wigner-based ray-tracing method for imaging simulations** [9630-33]
- 9630 10 **Computer holography as an application of computational optics** [9630-35]

POSTER SESSION

- 9630 12 **Design and implementation of a Cooke triplet based wave-front coded super-resolution imaging system** [9630-37]
- 9630 13 **Investigation of light propagation methods used to calculate wave-optical PSF** [9630-38]
- 9630 15 **Cylindrical plasmonic microcavity and its excitation** [9630-40]

Authors

Numbers in the index correspond to the last two digits of the six-digit citation identifier (CID) article numbering system used in Proceedings of SPIE. The first four 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.

Andreas, Birk, 0C	Mout, B. M., 0Z
Baladron-Zorita, Olga, 0B	Müller, Claas, 0G
Bläsi, Benedikt, 0G	Nakahara, Sumio, 10
Bociort, F., 0Z	Nakamura, Masayuki, 0U
Burger, Sven, 0R, 0S	Nekouei Shahraki, M., 0P
Carles, Guillem, 04	Nemitz, Wolfgang, 0T
Čižmár, Tomáš, 0E	Peharz, Gerhard, 0T
de la Barré, René, 08	Pertsch, Thomas, xii
Duckstein, Bernd, 08	Peter, Jörg, 0H
Eisenlohr, Johannes, 0G	Peters, Marius, 0G
Erdmann, Andreas, 0Y	Plöschner, Martin, 0E
Evanschitzky, Peter, 0Y	Pomplun, Jan, 0R, 0S
Faulkner, Matthias, xiii	Rockstuhl, Carsten, xiii
Fasold, Stefan, xiii	Sakamoto, Julia A., 07
Fries, Sebastian, 0M	Schmidt, Frank, 0R, 0S
Fu, Jih-Syuan, 0D	Schweitzer, Susanne, 0T
Fujii, Garuda, 0U	Shi, Rui, 0L
Goldschmidt, Jan Cristoph, 0G	Sommer, Christian, 0T
Gutsche, Philipp, 0S	Stallinga, S., 0V
Haala, N., 0P	Staupe, Isabelle, xiii
Hammerschmidt, Martin, 0R, 0S	Taylor, Jonathan M., 0X
Haroyan, Hovhannes, 15	Tien, Chung-Hao, 0D
Harvey, Andrew R., 04, 0X	Tucher, Nico, 0G
Hauser, Hubert, 0G	Tyc, Tomáš, 0E
Hellmann, Christian, 0L	Ulusoy, Erdem, 0K
Herrmann, Sven, 0R, 0S	Urbach, H. P., 0Z
Herzig, Hans Peter, 0N	Urbanek, Tina, 0H
Höhn, Oliver, 0G	Urey, Hakan, 0K
Holmstrom, Sven, 0K	Walther, Benny, xiii
Horiuchi, Shuma, 13	Wei, Jingxuan, 12
Hsiao, Ming-Shu, 0D	Wenzl, Franz P., 0T
Infante-Gómez, Daniel, 0N	Wick, M., 0Z
Jurk, Silvio, 08	Wohlfeil, Benjamin, 0S
Kazempouradi, Seyedmahdi, 0K	Wyrowski, Frank, 0A, 0B, 0L
Kiefel, Peter, 0G	Xiangli, Bin, 0W
Kleemann, Bernd H., 0Q	Xu, Dongbo, 0Y
Konda, Pavan Chandra, 0X	Yamamoto, Manabu, 13
Kuhlmey, Mathias, 08	Yoshida, Shuhei, 13
Kuhn, Michael, 0B	Zammit, Paul, 04
Leiner, Claude, 0T	Zhang, Site, 0A, 0L
Li, Jie-En, 0D	Zhao, Hui, 12
Li, Weiyan, 0W	Zhong, Huiying, 0B, 0L
Lindlein, Norbert, 0M	Zschiedrich, Lin, 0R, 0S
Liu, Yangyang, 0W	
Loosen, Florian, 0M	
Lv, Qunbo, 0W	
Majer, Charles L., 0H	
Matsushima, Kyoji, 10	
Menzel, Christoph, xiii	

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Keynote Session

Andreas Erdmann, Fraunhofer-Institut für Integrierte Systeme und Bauelementetechnologie IISB (Germany)

- 1 Imaging Applications I
Daniel G. Smith, Nikon Research Corporation of America (United States)
- 2 Optical Field Propagation Techniques
Daniel G. Smith, Nikon Research Corporation of America (United States)
- 3 Applications in Medicine and Energy Harvesting
Donis G. Flagello, Nikon Research Corporation of America (United States)
- 4 Non-Imaging Applications
Frank Wyrowski, Friedrich-Schiller-Universität Jena (Germany)
- 5 Imaging Applications II
Andreas Erdmann, Fraunhofer-Institut für Integrierte Systeme und Bauelementetechnologie IISB (Germany)
- 6 Electromagnetic Field Methods
Frank Wyrowski, Friedrich-Schiller-Universität Jena (Germany)
- 7 Inverse Imaging Problems
Andreas Erdmann, Fraunhofer-Institut für Integrierte Systeme und Bauelementetechnologie IISB (Germany)
- 8 Computational Optics
Andreas Erdmann, Fraunhofer-Institut für Integrierte Systeme und Bauelementetechnologie IISB (Germany)

Introduction

In 2015, the name of our conference changed from Physical Optics to Computational Optics. This change was intended to help align the expectations of the authors and audiences with the interests of the organizers. We feel that the new name evokes something closer to the kinds of topics we want to learn about and share: the simulation of optical phenomena and systems using either novel techniques or by applying conventional techniques to develop new paradigm situations. Discussions with participants during and after the conference tended to support our decision to change the name.

This year's conference was filled with excellent speakers and an equally attentive audience that provided many questions and lively discussions. Our keynote talk by Donis Flagello was an historical overview of computation in lithography – a field that now depends heavily on computational optics for every cycle of development.

This was then followed by two and a half days of computational optics presentations, as well as had three posters presented on Tuesday. The eight regular sessions included: Imaging Applications (sessions 1 and 5), Optical Field Propagation Techniques (session 2), Applications in Medicine and Energy Harvesting (session 3), Non-imaging Applications (session 4), Electromagnetic Field Methods (session 6), Inverse Imaging (session 7), and Computational Optics (Session 8).

Daniel G. Smith
Frank Wyrowski
Andreas Erdmann