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Contents

xvii	Conference Committee
xxiii	Introduction to Part C: Illumination Optics III

Part One

PART A Optical Design and Engineering V

SESSION 1	SOFTWARE AND MODELLING
8550 02	Comprehensive modelling and simulation of micro-optical subsystems [8550-1] I. Sieber, Karlsruher Institut für Technologie (Germany)
8550 03	Accuracy of geometric point spread function estimation using the ray-counting method [8550-2] J. Portilla, S. Barbero, Consejo Superior de Investigaciones Científicas (Spain)
8550 04	Super resolution using a modified Spherical Geodesic Waveguide suitable for manufacturing [8550-3] H. Ahmadpanahi, D. Grabovičkić, Univ. Politécnica de Madrid (Spain); J. Carbonell, Univ. Politécnica de València (Spain); J. C. González, P. Benítez, J. C. Miñano, Univ. Politécnica de Madrid (Spain); J. Sánchez-Dehesa, Univ. Politécnica de Valencia (Spain)
8550 05	Integrating optical simulation into CAD/CAM solutions: advantages to designers of optical imaging systems [8550-4] J. Dalmau, E. Lesage, OPTIS SAS (France)
SESSION 2	SOFTWARE AND MODELLING II
8550 06	Tolerancing of free form elements considering manufacturing characteristics [8550-5] S. Zwick, R. Knoth, R. Steinkopf, G. Notni, Fraunhofer-Institut für Angewandte Optik und Feinmechanik (Germany)
8550 07	Design and modelisation of a straylight facility for space optical instrument [8550-6] E. Mazy, Y. Stockman, M. L. Hellin, Univ. de Liège (Belgium)
8550 08	A simulation model for the development of an aspheric lens adjustment system [8550-7] C. Bräuer-Burchardt, S. Zwick, M. Beier, A. Gebhardt, P. Kühmstedt, Fraunhofer-Institut für Angewandte Optik und Feinmechanik (Germany)
8550 09	Forward tracing technique for diffraction analysis applied to the design of an IR endoscope [8550-8] A. Cifuentes, ASE Optics Europe (Spain); J. Arasa, Univ. Politècnica de Catalunya (Spain)

SESSION 3 SOFTWARE AND MODELLING III

- 8550 0A **Experiences with CodeV Glass Expert** [8550-10]
M. Jeffs, Qioptiq Ltd. (United Kingdom)
- 8550 0B **Applying optical design methods to the development of application specific photonic crystal fibres** [8550-12]
F. Berghmans, T. Geernaert, Vrije Univ. Brussel (Belgium); M. Napierata, Vrije Univ. Brussel (Belgium), Wroclaw Univ. of Technology (Poland), and InPhoTech Ltd. (Poland);
T. Baghdasaryan, C. Sonnenfeld, S. Sulejmani, Vrije Univ. Brussel (Belgium); T. Nasitowski, InPhoTech Ltd. (Poland) and Military Univ. of Technology (Poland); P. Mergo, Univ. Marii Curie-Sklodowskiej (Poland); T. Martynkien, W. Urbańczyk, E. Bereś-Pawlik, Wroclaw Univ. of Technology (Poland); H. Thienpont, Vrije Univ. Brussel (Belgium)
- 8550 0C **A computer modelling approach to decrease stray light in low light non imaging optical designs** [8550-77]
S. Seyhun, Roketsan Missiles Inc. (Turkey); H. Sari, Ankara Univ. (Turkey)

SESSION 4 OPTICAL SOLUTIONS I

- 8550 0D **Chromatic information coding in optical systems for hyperspectral imaging and chromatic confocal sensing (Invited Paper)** [8550-13]
M. Hillenbrand, A. Grewe, M. Bichra, B. Mitschunas, R. Kirner, R. Weiß, S. Sinzinger, Technische Univ. Ilmenau (Germany)
- 8550 0E **Quantify passive athermalization in infrared imaging lens systems** [8550-14]
N. Schuster, Umicore Electro-Optic Materials (Belgium)
- 8550 0F **Development of a real-time optical imaging system for monitoring food quality and assessing human body parts using diffused light** [8550-15]
T. Genta, H. Tashima, Toyohashi Univ. of Technology (Japan); R. Shimokita, Genial Light Co., Ltd. (Japan); S. Arai, M. Fukuda, Toyohashi Univ. of Technology (Japan)

SESSION 5 OPTICAL SOLUTIONS II

- 8550 0I **Improving laser material processing objective lenses towards better utilization of high brilliance light sources (Invited Paper)** [8550-18]
L. Reichmann, H.-J. Feige, J. Finster, M. Bening, J. Wunderlich, P. Triebel, H. Bernitzki, U. Schuhmann, JENOPTIK Optical Systems GmbH (Germany)
- 8550 0J **Optical design of a low-loss demultiplexer for optical communication systems in the visible range** [8550-19]
M. Haupt, U. H. P. Fischer, Hochschule Harz Univ. of Applied Sciences (Germany)
- 8550 0K **Recent development in light Ultramicroscopy using aspherical optical elements** [8550-20]
S. Saghafi, K. Becker, C. Hahn, H.-U. Dodt, Technische Univ. Wien (Austria) and Medical Univ. of Vienna (Austria)

- 8550 OL **Accurate and efficient fiber optical shape sensor for MRI compatible minimally invasive instruments** [8550-21]
M. S. van der Heiden, TNO (Netherlands); K. R. Henken, Technische Univ. Delft (Netherlands); L. K. Chen, B. G. van den Bosch, R. van den Braber, TNO (Netherlands); J. Dankelman, J. J. van den Dobbelsteen, Technische Univ. Delft (Netherlands)
- 8550 OM **Study of aberrational performance of Klevtsov family of sub-aperture catadioptric telescopes and field correctors for them** [8550-22]
A. N. Yudin, M. V. Keldysh Institute of Applied Mathematics (Russian Federation)

SESSION 6 OPTICAL SOLUTIONS III

- 8550 ON **Dynamic aberration correction for an optical see-through head-mounted display** [8550-23]
M. Beuret, P. Twardowski, Ecole Nationale Supérieure de Physique de Strasbourg (France); J. Fontaine, Institut National des Sciences Appliquées de Strasbourg (France) and Ecole Nationale Supérieure de Physique de Strasbourg (France)
- 8550 OO **Blue glass lens elements used as IR cut filter in a camera design and the impact of inner quality onto lens performance** [8550-24]
S. Reichel, F.-T. Lentjes, SCHOTT AG (Germany)
- 8550 OP **Development of a nanop profiler using the follow-up normal vector to the surface for next-generation ultraprecise mirrors** [8550-25]
K. Usuki, T. Kitayama, H. Matsumura, T. Kojima, J. Uchikoshi, Osaka Univ. (Japan); Y. Higashi, High Energy Accelerator Research Organization (Japan); K. Endo, Osaka Univ. (Japan)
- 8550 OQ **High numerical aperture silicon collimating lens for mid-infrared quantum cascade lasers manufactured using wafer-level techniques** [8550-26]
E. Logean, L. Hvozda, J. Di-Francesco, H. P. Herzig, Ecole Polytechnique Fédérale de Lausanne (Switzerland); R. Voelkel, M. Eisner, SUSS MicroOptics SA (Switzerland); P.-Y. Baroni, M. Rochat, A. Müller, Alpes Lasers SA (Switzerland)
- 8550 OR **Alignment of phase-shifting interferograms in the two-beam point diffraction interferometer** [8550-27]
N. Voznesenskiy, M. Voznesenskaia, N. Petrova, VTT-NTM OÜ (Estonia); A. Abels, Smart Stuff OÜ (Estonia)

SESSION 7 OPTICAL SOLUTIONS IV

- 8550 OS **Optical design of power adjustable spherocylindrical ophthalmic systems** [8550-28]
S. Barbero, Consejo Superior de Investigaciones Científicas (Spain); J. Rubinstein, Technion-Israel Institute of Technology (Israel)
- 8550 OT **Planar plano-convex microlens in silica using ICP-CVD and DRIE** [8550-29]
E. Markweg, M. Hillenbrand, S. Sinzinger, M. Hoffmann, Technische Univ. Ilmenau (Germany)
- 8550 OU **110 years BK7: optical glass type with long tradition and ongoing progress** [8550-30]
P. Hartmann, SCHOTT AG (Germany)

SESSION 8 OPTICAL SOLUTIONS V

- 8550 0W **The design of a multi-point probe for a scanning low-coherence distance-measuring interferometer** [8550-32]
C. T. Cotton, C. J. Ditchman, N. E. Burdick, ASE Optics, LLC (United States); D. W. Diehl, Monroe Community College (United States)
- 8550 0X **MWIR zoom with focal extender** [8550-33]
M. C. de la Fuente, J. M. Infante Herrero, L. Rivera, Indra Sistemas, S.A. (Spain)
- 8550 0Y **Verification of the optical design by simultaneous measurement of centering errors and relative surface distances inside of optical systems** [8550-78]
P. Langehanenberg, D. Stickler, B. Lürß, J. Heinisch, TRIOPTICS GmbH (Germany)

SESSION 9 THEORY AND DESIGN METHODS I

- 8550 0Z **Skew aberration analysis (Invited Paper)** [8550-36]
G. Young, Synopsys, Inc. (United States); R. A. Chipman, College of Optical Sciences, The Univ. of Arizona (United States)
- 8550 10 **SMS design and aberrations theory** [8550-37]
F. Corrente, ERCIM - Alain Bensoussan Fellowship Programme (Spain) and Univ. Politécnica de Madrid (Spain); P. Benítez, L. Wang, J. C. Miñano, Univ. Politécnica de Madrid (Spain); F. Muñoz, General Electric España (Spain)
- 8550 11 **Single optical surface imaging designs with unconstrained object to image mapping** [8550-38]
J. Liu, Univ. Politécnica de Madrid (Spain); J. C. Miñano, P. Benítez, Univ. Politécnica de Madrid (Spain) and Light Prescriptions Innovators, LLC (United States); L. Wang, Univ. Politécnica de Madrid (Spain)
- 8550 12 **Perfect imaging analysis of the spherical geodesic waveguide** [8550-39]
J. C. González, P. Benítez, J. C. Miñano, D. Grabovičkić, Univ. Politécnica de Madrid (Spain)

SESSION 10 THEORY AND DESIGN METHODS II

- 8550 13 **Improved wavefront reconstruction using difference Zernike polynomials for two double-shearing wavefronts** [8550-41]
H. Wang, Y. Li, K. Liu, J. Wang, Beijing Institute of Technology (China)
- 8550 14 **Double tailoring of freeform surfaces for off-axis aplanatic systems** [8550-42]
A. Hofmann, J. Unterhinninghofen, H. Ries, S. Kaiser, OEC AG (Germany)

SESSION 11 SPACE APPLICATIONS I

- 8550 15 **Lightweight stable sandwich mirrors: current achievements in the development** [8550-43]
G. Harbach, A. Herren, T. Hausner, E. Rugi Grond, RUAG Space AG (Switzerland);
J. J. Fermé, Thales - Société Européenne de Systèmes Optiques (France)
- 8550 16 **Development of a light-weight beryllium Cassegrain telescope: from the optical design to the performance measurement** [8550-44]
J. Viertl, R. Greger, M. Di Domenico, L. Francou, M. Ellouzi, S. Blum, K. Kudielka, T. Weigel,
E. Rugi Grond, RUAG Space AG (Switzerland); D. Piazza, Univ. Bern (Switzerland)
- 8550 17 **Ultra stable off-axis telescope: lessons learnt from the optical design to the correlation of the test results** [8550-45]
A. Casciello, T. Weigel, M. Raunhardt, A. Herren, S. Blum, N. de Roux, T. Seure,
U. E. Krähenbühl, M. Herbert, RUAG Space AG (Switzerland)
- 8550 18 **Optimization of the dust sensor in the Mars MetNet Mission; extension to in situ CO₂ concentration and surface temperature measurements by infrared multispectral sensing** [8550-47]
F. Cortés, A. González, A. Llopis, A. J. de Castro, J. Meléndez, F. López, Univ. Carlos III de Madrid (Spain)

SESSION 12 SPACE APPLICATIONS II

- 8550 19 **Microscope with 3D mapping capabilities for planetary exploration applications** [8550-49]
M. Doucet, INO (Canada); P. Dietrich, MDA Corp. (Canada); F. Châteauneuf, INO (Canada)
- 8550 1A **Predict and simulate final optical performances of TMAs: application to the NIRSpec instrument** [8550-50]
F. Riguet, Sagem REOSC (France)
- 8550 1B **Alignment based on a no adjustment philosophy for the Immersion Grating Infrared Spectrometer (IGRINS)** [8550-51]
J.-Y. Han, Korea Astronomy and Space Science Institute (Korea, Republic of); I.-S. Yuk, Korea Astronomy and Space Science Institute (Korea, Republic of) and SELab Inc. (Korea, Republic of); K. Ko, H. Oh, J. Nah, J. S. Oh, C. Park, Korea Astronomy and Space Science Institute (Korea, Republic of); S. Lee, SELab Inc. (Korea, Republic of); K.-M. Kim, M.-Y. Chun, Korea Astronomy and Space Science Institute (Korea, Republic of); D. T. Jaffe, The Univ. of Texas at Austin (United States); S. Pak, Kyung Hee Univ. (Korea, Republic of); M. Gully-Santiago, The Univ. of Texas at Austin (United States)
- 8550 1C **MEGARA optical design: the new integral field unit and multi-object spectrograph for the GTC 10m telescope** [8550-75]
M.-L. García-Vargas, E. Sánchez-Blanco, FRACTAL S.L.N.E (Spain); E. Carrasco, Instituto Nacional de Astrofísica, Óptica y Electrónica (Mexico); A. Gil de Paz, Univ. Complutense de Madrid (Spain); G. Páez, Ctr. de Investigaciones en Óptica, A.C (Mexico); A. Pérez, FRACTAL S.L.N.E. (Spain); J. Gallego, Univ. Complutense de Madrid (Spain); F. Sánchez, Univ. Politécnica de Madrid (Spain); J. M. Vílchez, Instituto de Astrofísica de Andalucía (Spain)

POSTER SESSION

- 8550 1D **Co/Mo₂C mirror as studied by x-ray fluorescence and photoelectron spectroscopies induced by x-ray standing waves** [8550-53]
P. Jonnard, K. Le Guen, Y.-Y. Yuan, J.-M. André, Univ. Pierre et Marie Curie (France); S. Mukherjee, A. Giglia, S. Nannarone, Lab. Nazionale TASC (Italy); N. Mahne, Sincrotrone Trieste S.C.p.A. (Italy); Z.-S. Wang, H.-C. Li, J.-T. Zhu, Tongji Univ. (China)
- 8550 1E **XRC-PHOBOS: software for optimization of the multi-blade MARS-XRD collimator: an update** [8550-54]
C. Pellicciari, L. Marinangeli, International Research School of Planetary Sciences (Italy)
- 8550 1F **Design of an optical position detection unit for fast 2D-MOEMS scanners** [8550-55]
A. Tortschanoff, Carinthian Tech Research AG (Austria); T. Sandner, Fraunhofer-Institut für Photonische Mikrosysteme (Germany); A. Kenda, Carinthian Tech Research AG (Austria)
- 8550 1G **Optimizing an active extreme asphere based optical system** [8550-56]
T. Agócs, R. Navarro, NOVA-ASTRON (Netherlands); L. Venema, ASTRON (Netherlands); G. Kroes, NOVA-ASTRON (Netherlands)
- 8550 1H **MarcoPolo-R narrow angle camera: a three-mirror anastigmat design proposal with a smart finite conjugates refocusing optical system** [8550-57]
J. Antichi, INAF - Osservatorio Astrofisico di Arcetri (Italy); M. Tordi, Space Technologies s.r.l. (Italy); D. Magrin, R. Ragazzoni, G. Cremonese, INAF - Osservatorio Astronomico di Padova (Italy)
- 8550 1I **Effective speckle noise reduction of laser projection displays by high frequency driving current superposition for blue, red, and direct green emission laser diode** [8550-58]
Y. Kouno, K. Kamata, K. Chihaya, W. Sasaki, Doshisha Univ. (Japan); H. Matsubara, A. Hirano, K. Nagashima, Funai Electric Co., Ltd. (Japan)
- 8550 1J **Optical relay design for an IR imaging diagnostic system in TJ-II fusion device** [8550-59]
C. Ruiz de Galarreta, A. Manzanares Ituarte, Univ. Complutense de Madrid (Spain); E. de la Cal Heusch, M. Liniers, G. Wolfers, Ctr. de Investigaciones Energéticas, Medioambientales y Tecnológicas (Spain)
- 8550 1L **The wavefront aberrations in off-axis spherical mirror with object point or image point** [8550-61]
A. Gómez-Vieyra, Univ. Autónoma Metropolitana (Mexico); D. Malacara-Hernández, Ctr. de Investigaciones en Óptica, A.C. (Mexico); J. C. Hidalgo-González, C. A. Vargas, Univ. Autónoma Metropolitana (Mexico)
- 8550 1M **Optical device for precision Moiré topography of micro surfaces** [8550-62]
S. Meguellati, S. Djabi, Univ. Ferhat Abbas de Sétif (Algeria)
- 8550 1O **Simulation of cylindrical interferometric testing with position error of bearing** [8550-64]
J. Liu, J. Peng, D. Ge, Y. Yu, Shanghai Univ. (China)

Part Two

- 8550 1P **Realization of low-loss mirrors with sub-nanometer flatness for future gravitational wave detectors** [8550-66]
C. Michel, N. Morgado, L. Pinard, B. Sassolas, R. Bonnard, J. Degallaix, D. Forest, R. Flaminio, Lab. des Matériaux Avancés, CNRS (France); G. Billingsley, California Institute of Technology (United States)
- 8550 1T **EchMod: a MATLAB toolbox for modeling high resolution échelle spectrographs** [8550-70]
S. I. Barnes, Stuart Barnes Optical Design (Netherlands)
- 8550 1U **Investigation of the x-ray reflectivity of the Co/Mo₂C system upon thermal treatment** [8550-71]
Y. Yuan, K. Le Guen, J.-M. André, Univ. Pierre et Marie Curie (France); Z. Wang, H. Li, J. Zhu, Tongji Univ. (China); P. Jonnard, Univ. Pierre et Marie Curie (France)
- 8550 1V **Preliminary optical design of a polychromator for a Raman LIDAR for atmospheric calibration of the Cherenkov Telescope Array** [8550-72]
V. Da Deppo, Consiglio Nazionale delle Ricerche (Italy); M. Doro, Univ. Autònoma de Barcelona (Spain); O. Blanch, Institut de Física d'Altes Energies (Spain); L. Font, Univ. Autònoma de Barcelona (Spain); A. Lopez, Institut de Física d'Altes Energies (Spain); M. Gaug, Univ. Autònoma de Barcelona (Spain); M. Martinez, Institut de Física d'Altes Energies (Spain)
- 8550 1W **High-speed surface slope measuring profiler for aspheric shapes** [8550-73]
H. Matsumura, K. Usuki, T. Kitayama, H. Matsumura, T. Kojima, J. Uchikoshi, Osaka Univ. (Japan); Y. Higashi, T. Kume, K. Enami, High Energy Accelerator Research Organization (Japan); K. Endo, Osaka Univ. (Japan)
- 8550 1X **Design of hybrid optical tweezers system for automated 3D micro manipulation** [8550-74]
Y. Tanaka, National Institute of Advanced Industrial Science and Technology (Japan); S. Tsutsui, H. Kitajima, Kagawa Univ. (Japan)
- 8550 1Y **A space-based Far Infrared Interferometer (FIRI) instrument simulator and test-bed implementation** [8550-76]
R. Juanola-Parramon, Univ. College London (United Kingdom); P. A. R. Ade, Cardiff Univ. (United Kingdom); W. F. Grainger, Rutherford Appleton Lab. (United Kingdom); M. Griffin, E. Pascale, Cardiff Univ. (United Kingdom); G. Savini, Univ. College London (United Kingdom); L. Spencer, Cardiff Univ. (United Kingdom); B. Swinyard, Univ. College London (United Kingdom) and Rutherford Appleton Lab. (United Kingdom)

PART B Detectors and Associated Signal Processing V

SESSION 13 TECHNOLOGY

- 8550 1Z **Image registration software data correction algorithm for hyperspectral imager** [8550-81]
P. Mainali, IMEC (Belgium) and Katholieke Univ. Leuven (Belgium); G. Lafruit, IMEC (Belgium); S. Liu, IMEC (Belgium) and Katholieke Univ. Leuven (Belgium); K. Tack, B. Masschelein, IMEC (Belgium); L. Van Gool, Katholieke Univ. Leuven (Belgium); R. Lauwereins, IMEC (Belgium)

- 8550 20 **Towards video processing in vehicles under adverse weather conditions** [8550-82]
M. Grinberg, N. Schneider, F. Pagel, D. Manger, D. Willersinn, Fraunhofer-Institut für Optronik, Systemtechnik und Bildauswertung (Germany)
- 8550 21 **Measurement of the copper concentration in drinking water based on changes of the fluorescence lifetime of the green fluorescent protein** [8550-83]
B. Hötzer, T. Scheu, Steinbeis-Stiftung für Wirtschaftsförderung (Germany); G. Jung, Saarland Univ. (Germany); S. Castritius, Steinbeis-Stiftung für Wirtschaftsförderung (Germany)
- 8550 22 **Multichannel serial-parallel analog-to-digital converters based on current mirrors for multi-sensor systems** [8550-84]
V. G. Krasilenko, Vinnitsa Social Economy Institute (Ukraine); A. I. Nikolskyy, A. A. Lazarev, Vinnytsia National Technical Univ. (Ukraine)

SESSION 14 SIGNAL PROCESSING

- 8550 23 **Low light signal detection using a high dynamic range, high responsivity image sensor with multiple sampling modes** [8550-85]
R. Golding, STMicroelectronics (R&D) Ltd. (United Kingdom) and The Univ. of Edinburgh (United Kingdom); J. M. Raynor, STMicroelectronics (R&D) Ltd. (United Kingdom); R. K. Henderson, The Univ. of Edinburgh (United Kingdom)
- 8550 25 **2D simulation for the impact of edge effects on the performance of planar InGaAs/InP SPADs** [8550-87]
M. Anti, F. Acerbi, A. Tosi, F. Zappa, Politecnico di Milano (Italy)
- 8550 26 **Diffraction grating-based optical readout for thermal imaging** [8550-88]
U. Adiyar, R. B. Erarslan, Koç Univ. (Turkey); O. Ferhanoglu, The Univ. of Texas at Austin (United States); H. Torun, Bogaziçi Univ. (Turkey); H. Urey, Koç Univ. (Turkey)
- 8550 27 **Mm-wave hybrid narrow-gap hot-carrier and Schottky diodes detector arrays** [8550-89]
F. Sizov, V. Zabudsky, A. Golenkov, V. Petriakov, V. Lashkaryov Institute of Semiconductor Physics (Ukraine); S. Dvoretzki, A.V. Rzhakov Institute of Semiconductor Physics (Russian Federation); Z. Tsybrii, V. Lashkaryov Institute of Semiconductor Physics (Ukraine)

POSTER SESSION

- 8550 29 **Evaluation of optical radiation detectors in the range from 0.8 μm to 20 μm at the NIST infrared spectral calibration facility** [8550-91]
V. B. Podobedov, G. P. Eppeldauer, T. C. Larason, National Institute of Standards and Technology (United States)
- 8550 2A **Algorithm for concentration analysis with laser absorption spectroscopy** [8550-92]
A. Rodrigues, V. Lange, D. Kühke, Hochschule Furtwangen Univ. (Germany)
- 8550 2B **Spatial-temporal order of the photoresponse from the sensor materials** [8550-93]
A. V. But, V. P. Mygal, National Aerospace Univ. (Ukraine); I. V. Bodnar, Belarusian State Univ. of Informatics and Radioelectronics (Belarus)

PART C Illumination Optics III

SESSION 15 LED APPLICATIONS

- 8550 2E **Design and development of a light module for constant climate chambers based on LED technology** [8550-103]
P. Belloni, D. Rose, Hochschule Furtwangen Univ. (Germany); D. Molini-Vazquez, Univ. Complutense de Madrid (Spain)
- 8550 2F **VLC oriented energy efficient driver techniques** [8550-104]
G. del Campo Jiménez, F. J. López Hernández, Univ. Politécnica de Madrid (Spain)
- 8550 2G **Estimating the performance of remote phosphor SSL devices by simulations** [8550-105]
C. Wiesmann, OSRAM GmbH (Germany); A. Linkov, OSRAM Opto Semiconductors GmbH (Germany); J. Muschaweck, OSRAM GmbH (Germany)

SESSION 16 ILLUMINATION APPLICATIONS

- 8550 2I **Analytic free-form lens design for tracking integration in concentrating photovoltaics (Invited Paper)** [8550-107]
F. Duerr, Vrije Univ. Brussel (Belgium); P. Benítez, J. C. Miñano, Univ. Politécnica de Madrid (Spain) and Light Prescriptions Innovators, LLC (United States); Y. Meuret, H. Thienpont, Vrije Univ. Brussel (Belgium)
- 8550 2J **Novel lateral moving tracking optics with the SMS design method** [8550-108]
W. Lin, Univ. Politécnica de Madrid (Spain); P. Benítez, J. C. Miñano, Univ. Politécnica de Madrid (Spain) and Light Prescriptions Innovators, LLC (United States)
- 8550 2K **Volume scattering characterization for illumination design** [8550-109]
Q. Kuperman-Le Bihan, Light Tec (France)
- 8550 2L **Optical design of a laser scanning pico-projector** [8550-110]
I. Wallhead, R. Ocaña, AIDO Instituto Tecnológico de Óptica, Color e Imagen (Spain)

SESSION 17 LED COUPLING

- 8550 2M **Investigation of the design space for low aspect ratio LED collimators (Invited Paper)** [8550-111]
O. Dross, Philips Research (Netherlands)
- 8550 2N **Design of LED optics with two aspherical surfaces and the highest efficiency** [8550-112]
M. A. Moiseev, S. V. Kravchenko, L. L. Doskolovich, Image Processing Systems Institute (Russian Federation), LED Optics Design, LLC (Russian Federation), and Samara State Aerospace Univ. (Russian Federation); N. L. Kazanskiy, Image Processing Systems Institute (Russian Federation) and Samara State Aerospace Univ. (Russian Federation)

- 8550 2O **Design and manufacturing of LED primary optics for road lighting engine** [8550-113]
J. Y. Joo, W. H. Kim, Korea Photonics Technology Institute (Korea, Republic of); S. S. Park, Korea Institute of Industrial Technology (Korea, Republic of); S. B. Song, Korea Photonics Technology Institute (Korea, Republic of)
- 8550 2Q **Optimization of light output efficiency of LED drivers and optics** [8550-115]
O. F. Farsakoglu, I. Inal, Kilis 7 Aralik Univ. (Turkey)

SESSION 18 DESIGN OF FREEFORM SURFACES

- 8550 2S **Irradiance tailoring for extended sources using a point-source freeform design algorithms (Invited Paper)** [8550-116]
R. Wester, Fraunhofer-Institut für Lasertechnik (Germany); A. Bruneton, RWTH Aachen (Germany); A. Bäuerle, Fraunhofer-Institut für Lasertechnik (Germany), RWTH Aachen (Germany), and Massachusetts Institute of Technology (United States); J. Stollenwerk, P. Loosen, Fraunhofer-Institut für Lasertechnik (Germany) and RWTH Aachen (Germany)
- 8550 2T **Optimizing nonimaging free-form optics using free-form deformation** [8550-117]
S. Wendel, J. Kurz, C. Neumann, Karlsruher Institut für Technologie (Germany)
- 8550 2U **Aplanatic thin TIR lens** [8550-118]
P. Zamora, Univ. Politécnica de Madrid (Spain); P. Benítez, J. C. Miñano, Univ. Politécnica de Madrid (Spain) and Light Prescriptions Innovators, LLC (United States)
- 8550 2V **Strategy to obtain initial configurations for free form reflectors design** [8550-119]
N. Tomás Corominas, J. Arasa Martí, Univ. Politécnica de Catalunya (Spain)
- 8550 2W **Quasi-aplanatic free-form V-groove collimators for LED colour mixing** [8550-120]
M. Buljan, Univ. Politécnica de Madrid (Spain); P. Benítez, J. C. Miñano, Light Prescriptions Innovators, LLC (United States); L. Wang, Univ. Politécnica de Madrid (Spain); R. Mohedano, Light Prescriptions Innovators, LLC (United States)

SESSION 19 OPTICAL MODELLING

- 8550 2X **Inhomogeneous source uniformization using a shell mixer Köhler integrator (Invited Paper)** [8550-121]
J. Chaves, A. Cvetkovic, R. Mohedano, Light Prescriptions Innovators Europe, S. L. (Spain); O. Dross, Philips Research (Netherlands); M. Hernandez, Light Prescriptions Innovators Europe, S. L. (Spain); P. Benítez, J. C. Miñano, Univ. Politécnica de Madrid (Spain) and Light Prescriptions Innovators, LLC (United States); J. Vilaplana, Light Prescriptions Innovators Europe, S. L. (Spain)
- 8550 2Y **Time-space conversion for short pulse generation with a long lifetime phosphor** [8550-122]
M. Saito, S. Nakamura, Ryukoku Univ. (Japan)
- 8550 2Z **Light output losses of prism light guides** [8550-123]
B. García-Fernández, D. Vázquez-Moliní, A. Alvarez Fernandez-Balbuena, E. Bernabeu, Univ. Complutense de Madrid (Spain)

- 8550 30 **Method for design of axis-symmetrical TIR-optics with use of special quick raytracing technique** [8550-124]
M. A. Moiseev, E. V. Byzov, K. V. Borisova, L. L. Doskolovich, Image Processing Systems Institute (Russian Federation), LED Optics Design, LLC (Russian Federation), and Samara State Aerospace Univ. (Russian Federation)

POSTER SESSION

- 8550 31 **Model-based validation and development of LED-systems: MValEnt** [8550-125]
R. Lachmayer, S. Stephan, Leibniz Univ. Hannover (Germany)
- 8550 32 **Detailed illuminator design for full-field ArF lithography system with a method based on the fly's eye** [8550-126]
L. Wei, Y. Li, L. Liu, Beijing Institute of Technology (China)
- 8550 33 **Controlling daylight illumination in cultural heritage buildings by using thin-film and thermographic technologies** [8550-127]
D. Vázquez, J. Muñoz de Luna, A. Alvarez, S. Mayorga, G. Hernández, Univ. Complutense de Madrid (Spain); A. Garcia, Univ. Politécnica de Madrid (Spain); A. Laborde, J. A. Herráez, M. del Egido, Instituto del Patrimonio Cultural de España (Spain)
- 8550 35 **Study of chromatic variations between metameres by varying the lighting in the painting "Boy in a turban holding a nosegay" by Michiel Sweerts** [8550-129]
D. Vázquez, J. Muñoz de Luna, A. Alvarez, Univ. Complutense de Madrid (Spain); A. Sánchez, U. Sedano, Museo Thyssen-Bornemisza (Spain)

PART D Physical Optics II

SESSION 20 PHYSICAL OPTICS I

- 8550 37 **Stochastic physical optics and Bell's correlation** [8550-131]
H. Geurdes, Consultant (Netherlands)
- 8550 38 **Vector Slepian functions and the inverse problem of high numerical aperture focusing** [8550-132]
K. Jahn, N. Bokor, Budapest Univ. of Technology and Economics (Hungary)
- 8550 39 **Optical characterisation of polymeric nanocomposites using tomographic, spectroscopic and Fraunhofer wavefront assessment** [8550-133]
T. Koukoulas, W. R. Broughton, National Physical Lab. (United Kingdom); J. Williams, S. Rahatekar, Univ. of Bristol (United Kingdom)

SESSION 21 PHYSICAL OPTICS II

- 8550 3A **Scalar wave solution for the scattering of a partially coherent beam from a statistically rough metallic surface** [8550-134]
M. W. Hyde IV, S. Basu, S. J. Cusumano, M. F. Spencer, Air Force Institute of Technology (United States)

- 8550 3B **Phase reconstruction of the focused Gaussian beam with optical vortex** [8550-135]
J. Masajada, A. Popiolek-Masajada, I. Augustyniak, Wroclaw Univ. of Technology (Poland)
- 8550 3C **Diffraction efficiency considerations and experimental realization for adaptive phase gratings with liquid crystal panels** [8550-136]
J. Albero, Univ. Miguel Hernández de Elche (United States); P. Garcia-Martínez, Univ. de València (Spain); J. L. Martínez, I. Moreno, Univ. Miguel Hernández de Elche (Spain); J. Campos, Univ. Autònoma de Barcelona (Spain)
- 8550 3E **Intensity fluctuations of scattered light caused by acoustic phonons in H-bonded liquids** [8550-138]
N. Kuzkova, A. Yakunov, National Taras Shevchenko Univ. of Kyiv (Ukraine)

SESSION 22 PHYSICAL OPTICS: MODELING TECHNIQUES

- 8550 3F **Semi-analytical techniques for efficient electromagnetic field propagation** [8550-139]
D. Asoubar, S. Zhang, F. Wyrowski, Friedrich-Schiller-Univ. Jena (Germany); M. Kuhn, LightTrans VirtualLab UG (Germany)
- 8550 3G **Gaussian beam Z-scan analysis for nonlinear optical materials possessing simultaneous third- and fifth-order nonlinear refraction with saturable absorption: an application to semiconductor CdSe quantum dot-polymer nanocomposites** [8550-140]
Y. Tomita, X. Liu, Y. Adachi, The Univ. of Electro-Communications (Japan)
- 8550 3I **Tilt operator for electromagnetic fields and its application to propagation through plane interfaces** [8550-142]
S. Zhang, H. Zhong, D. Asoubar, F. Wyrowski, Friedrich-Schiller-Univ. Jena (Germany); M. Kuhn, LightTrans VirtualLab UG (Germany)

SESSION 23 PHYSICAL OPTICS: MICROLITHOGRAPHY

- 8550 3K **Imaging characteristics of binary and phase shift masks for EUV projection lithography** [8550-144]
A. Erdmann, P. Evanschitzky, Fraunhofer-Institut für Integrierte System und Bauelementetechnologie (Germany)
- 8550 3L **Wafer thin film effects in lithographic focus detection** [8550-145]
D. G. Smith, Nikon Research Corp. of America (United States)
- 8550 3M **High numerical aperture Hartmann wavefront sensor with pinhole array extended source** [8550-147]
K. Liu, Y. Li, M. Zheng, H. Wang, B. Liu, Beijing Institute of Technology (China)

POSTER SESSION

- 8550 3N **In situ aberration measurement technique based on aerial image with optimized source** [8550-146]
G. Yan, Shanghai Institute of Optics and Fine Mechanics (China) and Graduate Univ. of the Chinese Academy of Sciences (China); X. Wang, S. Li, Shanghai Institute of Optics and Fine Mechanics (China); J. Yang, Shanghai Institute of Optics and Fine Mechanics (China) and Graduate Univ. of the Chinese Academy of Sciences (China); D. Xu, Shanghai Institute of Optics and Fine Mechanics (China); L. Duan, A. Y. Bourov, Shanghai Micro Electronics Equipment Co., Ltd. (China); A. Erdmann, Fraunhofer-Institut für Integrierte System und Bauelementetechnologie (Germany)
- 8550 3O **In situ aberration measurement technique based on quadratic Zernike model** [8550-148]
J. Yang, Shanghai Institute of Optics and Fine Mechanics (China) and Graduate Univ. of the Chinese Academy of Sciences (China); X. Wang, S. Li, Shanghai Institute of Optics and Fine Mechanics (China); L. Duan, Shanghai Microelectronics Equipment Co., Ltd. (China); G. Yan, Shanghai Institute of Optics and Fine Mechanics (China) and Graduate Univ. of the Chinese Academy of Sciences (China); D. Xu, Shanghai Institute of Optics and Fine Mechanics (China); A. Y. Bourov, Shanghai Micro Electronics Equipment Co., Ltd. (China); A. Erdmann, Fraunhofer-Institut für Integrierte System und Bauelementetechnologie (Germany)
- 8550 3Q **A digital holography technique for generating beams with arbitrary polarization and shape** [8550-150]
D. Maluenda, I. Juvells, Univ. de Barcelona (Spain); R. Martínez-Herrero, Univ. Complutense de Madrid (Spain); A. Carnicer, Univ. de Barcelona (Spain)
- 8550 3R **Impact of line edge and line width roughness on diffraction intensities in scatterometry** [8550-151]
H. Gross, M.-A. Henn, S. Heidenreich, Physikalisch-Technische Bundesanstalt (Germany); A. Rathsfeld, Weierstrass-Institut für Angewandte Analysis und Stochastik (Germany); M. Bär, Physikalisch-Technische Bundesanstalt (Germany)

Author Index

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PART A Optical Design and Engineering V

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Session Chairs

- 1 Software and Modelling I
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- 2 Software and Modelling II
Rolf Wartmann, Carl Zeiss Microscopy (Germany)
- 3 Software and Modelling III
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- 4 Optical Solutions I
Marco Hanft, Carl Zeiss AG (Germany)
- 5 Optical Solutions II
Maria J. Yzuel, Universidad Autònoma de Barcelona (Spain)
- 6 Optical Solutions III
Elisabetta Rugi Grond, RUAG Space AG (Switzerland)
- 7 Optical Solutions IV
Ullrich Krüger, JENOPTIK Optical Systems GmbH (Germany)
- 8 Optical Solutions V
Andres F. Cifuentes, ASE Optics Europe (Spain)
- 9 Theory and Design Methods I
Marta C. de la Fuente, Indra Sistemas, S.A. (Spain)
- 10 Theory and Design Methods II
Marta C. de la Fuente, Indra Sistemas, S.A. (Spain)
- 11 Space Applications I
Laurent Mazuray, EADS Astrium (France)
- 12 Space Applications II
Laurent Mazuray, EADS Astrium (France)

PART B Detectors and Associated Signal Processing V

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Session Chairs

13 Technology

Jean-Luc M. Tissot, ULIS (France)

14 Signal Processing

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PART C Illumination Optics III

Conference Chairs

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Teresa Molina-Jiménez, AIDO Instituto Tecnológico de Óptica, Color e Imagen (Spain)
Julius A. Muschaweck, OSRAM AG (Germany)
Jannick P. Rolland, University of Rochester (United States)

Session Chairs

- 15 LED Applications
Julius A. Muschaweck, OSRAM AG (Germany)
- 16 Illumination Applications
Rubén Mohedano, Light Prescriptions Innovators Europe, S. L. (Spain)
- 17 LED Coupling
Stuart David, Synopsys, Inc. (United States)
- 18 Design of Freeform Surfaces
Pablo Benítez, Universidad Politécnica de Madrid (Spain)
- 19 Optical Modelling
Teresa Molina-Jiménez, AIDO Instituto Tecnológico de Óptica, Color e Imagen (Spain)

PART D Physical Optics II

Conference Chairs

Daniel G. Smith, Nikon Research Corporation of America (United States)
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Session Chairs

- 20 Physical Optics I
Daniel G. Smith, Nikon Research Corporation of America
(United States)
- 21 Physical Optics II
Daniel G. Smith, Nikon Research Corporation of America
(United States)
- 22 Physical Optics: Modeling Techniques
Andreas Erdmann, Fraunhofer-Institut für Integrierte Systeme und
Bauelementetechnologie (Germany)
- 23 Physical Optics: Microlithography
Frank Wyrowski, Friedrich-Schiller-Universität Jena (Germany)

Introduction to Part C: Illumination Optics III

In reviewing SPIE's third European Illumination Optics conference, it is apparent that this conference continues to grow in expertise and presentation. Illumination Optics III included 30 papers. The Conference was composed of five sessions with an additional poster session of 5 papers.

Session 15, LED Applications chaired by Julius A Muschaweck, OSRAM AG (Germany), saw excellent papers on optimization of LED primary optics, and a paper by Julius Muschaweck covering the development of standardized light sources ray file format, which will prove to be of significant help to researchers in illumination.

A Tutorial on Illumination optimization using angle to position mapping was well attended and well received. The considerable expertise and insight shown by the author William J Cassarly, Synopsys, was a privilege to hear.

Session 16, Illumination Applications, included four insightful papers, the first two: Analytic free-form lens design for tracking integration in concentrating photovoltaics, followed by the discussion of Novel lateral moving tracking optics with the SMS design method, were complimentary and were presented in considerable detail by Fabian Duerr, Vrije Univ. Brussel (Belgium) and Pablo Benítez, Univ. Politécnica de Madrid (Spain)

Session 17, LED Coupling

LED's are a growing and exciting area of investigation. The papers presented in this session were all of a high standard with the inclusion of an invited paper by Oliver Dross, Philips Research (Netherlands) discussing the Investigation of the design space for low aspect ratio LED collimators.

Session 18, Design of Freeform Surfaces

The freeform optics papers presented illustrated clearly the increasing design advantages obtainable from the use of Freeform Surfaces. We anticipate continuing and surprising innovations from this exciting field of research.

Session 19, Optical Modelling

The session on optical modeling brought together some very interesting and diverse subjects in the field of optical modeling. We were pleased to have papers here from Japan, Spain, the Russian Federation and the United States.

Posters

Two papers by Daniel Vázquez-Molini and colleagues particularly drew my personal interest, as an art aficionado. The first, Controlling daylight illumination in cultural heritage buildings by using thin film and thermographic technologies, and the second a Study of chromatic variations between metameres by varying the lighting in the painting "Boy in a turban holding nosegay" by Michiel Sweerts. The discussion and results for both papers hold considerable value in the conservation of our buildings and paintings.

There is no doubt that illumination optics continues and will continue to develop and to assist all of us, whether we are pedestrians walking under street lights, driving our automobiles, watching TV, answering our smart phones or patients in a hospital. Today's illumination scientists and engineers are continuously bringing us new and creative implementations for that human visionary portion of the electromagnetic spectrum we call light. We look forward, with your help and support, to continuing to bring our community the latest and greatest illumination developments in our next European Illumination Optics conference scheduled for 2015.

Tina E. Kidger