Journal of the Optical Society of America A
OPTICS, IMAGE SCIENCE, AND VISION

The dedicated volunteers of JOSA A: editorial

P. Scott Carney

Received 12 February 2016; posted 12 February 2016 (Doc. ID 259416); published 1 March 2016

Editor-in-Chief P. Scott Carney introduces the JOSA A topical editors.

OCIS codes: (000.1200) Announcements, awards, news, and organizational activities; (000.5360) Physics literature and publications.

http://dx.doi.org/10.1364/JOSAA.33.000ED3

JOSA A is home to work ranging from the psychophysics of vision to the propagation of plasmons, from computational imaging to non-line-of-sight communications. Covering such a broad intellectual swath presents challenges that we meet through extraordinary voluntary service from those in the community we serve. The team of topical editors at JOSA A is drawn from a broad array of fields, careers, and cultures, and even at the individual level they bring the strength of diverse intellectual perspective. They commit many hours of their time and immeasurable mental energy every month to produce a journal we are very proud of. I am profoundly grateful to the dedicated people who serve on our team of topical editors. In this editorial, I would like to give our readers a more in-depth introduction to our team.

Shanker Balasubramaniam
Electromagnetics, including Simulation and Computational Methods

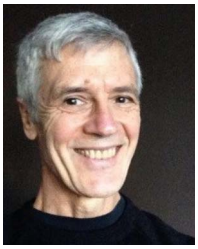
B. Shanker received his B'Tech from the Indian Institute of Technology, Madras, India, in 1989 and his M.S. and Ph.D. in 1992 and 1993, respectively, from Pennsylvania State University, USA. From 1993 to 1996 he was a Research Associate in the Department of Biochemistry and Biophysics at Iowa State University, where he worked on the molecular theory of optical activity. From 1996 to 1999 he was with the Center for Computational Electromagnetics at the University of Illinois at Urbana-Champaign, USA, as a Visiting Assistant Professor, and from 1999 to 2002 he was with the Department of Electrical and Computer Engineering at Iowa State University, USA, as an Assistant Professor. Currently, he is a Professor in the Department of Electrical and Computer Engineering and the Department of Physics and Astronomy at Michigan State University, USA. In 2015 he was appointed Associate Chair of the Department of Computational Mathematics, Science and Engineering at Michigan State University. He has published over 350 journal and conference papers and presented a number of invited talks. His research interests include all aspects of computational electromagnetics (frequency and time domain integral equation based methods, multiscale fast multipole methods, fast transient methods, higher order finite element and integral equation methods), propagation in complex media, mesoscale electromagnetics, and particle and molecular dynamics as applied to multiphysics and multiscale problems. He was an Associate Editor for *IEEE Antennas and Wireless Propagation Letters* (AWPL) and is currently an Associate Editor for *IEEE Transactions on Antennas and Propagation* in addition to his role at JOSA A. He is a full member of the USNC-URSI Commission B and a Fellow of IEEE, having been elected for his contributions in computational electromagnetics. He has also earned the Withrow Distinguished Scholar Junior Award (in 2003), Withrow Distinguished Scholar Senior Award (in 2010), the Withrow Teaching Excellence Award (in 2007), and the Beal Outstanding Faculty Award (in 2014).

Dominique Barchiesi
Biomedical Optics, Multiphysics Models, Numerical Engineering of Devices, Optimization, Signal Processing, Plasmonics

Dominique Barchiesi received his Ph.D. and Habilitation (accreditation to supervise research) in Engineering Science from the University of Franche-Comté, France, in 1993 and 1999 respectively. He worked as Assistant Professor at University of Franche-Comté before joining the University of Technology of Troyes as Professor in Applied Statistics and Operational Research and Advanced Numerical Methods in 1999. His research is in the fields of

plasmonics, multiphysics, spectroscopy, biosensors, cryptography, and signal processing. He uses statistical approaches to develop numerical methods to solve inverse problems and optimize devices. He has published over 115 papers, 10 chapters, 4 books, and 2 patents and also has an interest in teaching physics, metrology, and mathematics.

Charles Chubb
Vision



Charles Chubb received his B.A. in Philosophy from Princeton University, USA, in 1973. After teaching 7th and 8th grade English for 6 years he returned to graduate school, receiving his Ph.D. in Experimental Psychology from New York University, USA, in 1985. In 1989, following a four-year postdoctoral fellowship at New York University, he joined the Department of Psychology at Rutgers University, New Brunswick, USA. In 1993, he moved to the Department of Cognitive Sciences, University of California at Irvine, USA, where he is now Professor. All of his research uses psychophysical methods. His early work focused on motion perception and he has also worked on lightness and brightness perception. Much of his current work uses paradigms involving visual textures to analyze the space of image statistics to which human vision is spontaneously sensitive. He is the co-discoverer of several visual illusions including the "contrast-contrast illusion" and the "scramble illusion." Other research focuses on cuttlefish, seeking to analyze the remarkable skin patterns these cephalopods deploy to camouflage themselves in response to experimentally controlled visual input. He also does work in auditory perception to analyze the dimensions of human sensitivity to musical tonality.

Johannes Courtial
Geometrical Optics

Johannes Courtial studied at the University of Würzburg, Germany, before spending a year at the University of St Andrews, UK, where he remained to receive his M. Phil. (Distinction, 1995) and Ph.D. (1999). He then joined the University of Glasgow, UK, first as a Royal Society University Research Fellow (2001 to 2009) and then as a Lecturer. His research interests include optical angular momentum, fractal laser modes, holography, and most recently generalized refraction with pixelated optical elements, especially its application to imaging and ray-optical transformation optics. He has authored over 90 journal publications and several book chapters. He is a member of The Optical Society and the UK's Institute of Physics.

Christine Fernandez-Maloigne
Applied Color Science

Christine Fernandez-Maloigne graduated from the University of Technology of Compiegne (UTC), France, as a computer engineer in 1986. She received her Ph.D. in image processing from the same university in 1989. She was Associate Professor at UTC between 1990 and 1996 and received her accreditation to supervise research at the University of Lille, France. She moved to the University of Poitiers, France, in 1997, to create a new research role for color image processing and analysis, accredited by the CNRS. She was co-founder and member of the French National Colour Imaging Group in 2000, now part of the Centre Français de la Couleur, and was General Chair and organizer of the first IS&T European Conference on Colour in Graphics Image and Processing in Poitiers in 2002. Her research activities are focused on color imaging, including fundamental research on the introduction of human visual system models in multiscale color image processes as well as practical applications. She has authored over 400 articles in peer-reviewed journals, international conferences, and books. In 2012, she received the Augustin Fresnel National Award. Since 2005 she has served as French representative of Division 8 (Image Technology) of CIE (International Commission on Illumination) and secretary of this division since May 2015.

Fabrizio Frezza
Scattering and Propagation

Fabrizio Frezza received his "Laurea" (degree) "cum laude" in Electronic Engineering in 1986 and his Doctorate in Applied Electromagnetics and Electrophysical Sciences in 1991, from "La Sapienza" University of Rome, Italy. In 1986, he joined the same University, where he has been Professor of Electromagnetic Fields since 2005 in the Department of Information Engineering, Electronics and Telecommunications. He has been a member of the Board of the European School of Antennas since 2005, in charge of the course "Leaky Waves and Periodic Structures for Antenna Applications." He is the author of more than 450 scientific publications and 3 textbooks on basic and advanced electromagnetics and is the director of the Book Series on Electromagnetics and Optics. He is a senior member of The Optical Society and of IEEE and a member of Sigma Xi and of the Metamorphose Virtual Institute. His many awards include the "Giovanni Carosio" Prize in 1986, the "Giorgio Barzilai" Prize in 1994, the "Sapienza Ricerca" Prize in 2010, and the "Best Paper Award" at International Symposium on Antennas and Propagation in 2012. His

research has covered guiding structures, antennas and resonators for microwaves and millimeter waves, numerical methods, scattering, optical propagation, plasma heating, anisotropic media, artificial materials, and metamaterials.

Gregory J. Gbur
Physical Optics

Gregory J. Gbur received a B.A. with honors from the University of Chicago, USA, in 1993 and his M.A. and Ph.D. from the University of Rochester, USA, in 1996 and 2001. Since 2005, he has been a faculty member at the University of North Carolina at Charlotte, USA, becoming an Associate Professor in 2010. His research is in classical theoretical optics, focusing on singular optics, coherence theory, plasmonics and invisibility/cloaking. He has written or coauthored over 80 journal papers to date, including three reviews for *Progress in Optics*. He also wrote the textbook *Mathematical Methods for Optical Physics and Engineering* (Cambridge University Press, Cambridge, 2011) and is currently finishing a textbook on *Singular Optics*, due in 2016. He has an active interest in science communication, writing the personal science blog *Skulls in the Stars* since 2007, and has written popular articles for a number of magazines, including *La Recherche*, *American Scientist*, and *Optics and Photonics News*.

Harilaos Ginis
Clinical Vision and Visual Optics

Harilaos Ginis received his B.Sc. in Physics from the University of Crete, Greece, in 1993 and subsequently worked for three years in the local biomedical industry. He returned to academia and earned his Ph.D. in Biomedical Technology in 2003. He taught general optics, physiological optics, computational physics, and signal processing for nine years at postgraduate level in Crete and worked on laser-tissue interaction, mechanical and optical properties of the eye, and surgical laser systems. He then moved to Murcia, Spain, where he worked for three years on imaging and diagnostic applications in ophthalmology, including 2-photon microscopy and *in-vivo* optical characterization of ocular tissues. He is currently Research Coordinator at the Athens Eye Laboratories, Athens, Greece, focusing on novel diagnostic and surgical devices in ophthalmology. He has designed various devices that are now commercialized in ophthalmology, including surgical systems, diagnostic instruments and intraocular lenses. His research interests include stray light phenomena in vision and optical metrology in the eye.

Richard Holmes
Atmospheric Optics

Richard Holmes graduated with honors in Physics from the California Institute of Technology, USA, in 1981. He received his M.S. in 1983 and was supported by a Stanford Fellowship while pursuing a Ph.D. at Stanford University, USA, in Operations Research. He has contributed to a book on singular perturbation theory and has made contributions in the theory of estimation and control. In 1987 he contributed to a theory of spin-one and spin-two optical phonons in gases to explain polarization effects in stimulated Raman scattering and has published a number of papers in nonlinear optics. He has performed numerous calculations in the area of atmospheric compensation and imaging and has authored patents in these areas. His current technical interests include high-resolution imaging, high-energy-laser effects, and laser propagation in strong turbulence. He currently serves as Chief Scientist for the Laser Technical Services division of Boeing.

Rosario Martinez-Herrero
Coherence and Statistical Optics

Rosario Martinez-Herrero received her M.Sc. degrees in Physics and Mathematics from the Universidad Complutense de Madrid (UCM), Spain, and her Ph.D. in Physics from the same university. She has been a Professor in the Optics Department of Faculty of Physics of UCM since 1999. In 1990 she was awarded the ICO prize by the International Commission for Optics. Her research interests include coherence theory, polarization, beam characterization, and propagation of highly focused beams. She is also interested in didactical themes, and she is coauthor of didactic books related to optics. She has published more than 140 journal articles and conference papers. In addition to her current service at JOSA A, she has served as a member of the editorial board of *Optics Letters*.

Sérgio Nascimento
Color Vision

Sérgio Nascimento graduated in Physics from the University of Porto, Portugal, and has a Ph.D. in Color Science from Keele University, UK. He is Associate Professor with Aggregation of Physics at Minho University, Portugal, where he teaches Optics, Vision Sciences, and Color

Science. His research focuses on colorimetry and color vision in particular, as well as applications of spectral imaging, color constancy and color rendering, color in art, and models of color vision. He has published more than 100 research articles on color vision and related topics. Since 2007 he has been member of the Board of Directors of the International Color Vision Society.

Mathias Schubert
Polarization and Thin Films

Mathias Schubert received his Ph.D. and Doctor Habilis in Physics from the University of Leipzig, Germany, in 1997 and 2003, respectively. Before joining the University of Nebraska–Lincoln, USA, in 2005, he worked at Universität Leipzig, Université Pierre et Marie Curie, France, University of Fribourg, Switzerland, and Linköping Institute of Technology, Sweden. Since 2012 he has served as Professor in Electrical and Computer Engineering. His research is in the fields of polarization spectroscopy, condensed matter physics, and materials science and technology. He has published over 255 papers, 10 chapters, 2 books, and 8 patents. In 2006 he received the Ludwig-Genzel-Prize for his contributions to long wavelength ellipsometry and applications to numerous problems in solid state science. He is co-founder of the Ellipsometry Association Paul Drude e.V., and he has been organizing and advising National and International Ellipsometry conferences since 2001. He is also a Fellow of the Leibnitz Research Society and a Fellow of the American Physical Society. In 2015 he received the title of Honorary Doctor of Technology from Linkoping University, Sweden, for his invention of the optical Hall effect as a novel spectroscopy method for contactless characterization of semiconductor devices and for pioneering the development of generalized ellipsometry.

Samuel T. Thurman
Image Processing

Samuel T. Thurman received degrees in Optics from the University of Rochester, USA (B.S. in 1996, M.S. in 1996, and Ph.D. in 2002). His doctoral research dealt with the design of waveguide/grating structures for optical filtering. He has worked as a researcher on both passive and active imaging systems at University of Rochester, Jet Propulsion Laboratory, and Lockheed Martin. His research interests include statistical optics, unconventional imaging systems, wavefront sensing, and image reconstruction.

Masahiro Yamaguchi
Machine Vision

Masahiro Yamaguchi is a Professor in the School of Engineering at Tokyo Institute of Technology, Japan. He received his B.S., M. Eng, and D. Eng. degrees from Tokyo Institute of Technology in 1987, 1989, and 1994, respectively. Since 1989 he has been a faculty member of the same Institute, from 1996 to 2011 as an Associate Professor at the Imaging Science and Engineering Laboratory and from 2011 to 2015 as a Professor in the Global Scientific Information and Computing Center. From 1999 to 2006, he was concurrently a project sub-leader in Akasaka Natural Vision Research Center, TAO (currently NICT), Japan. His research includes color and multispectral imaging, computational displays, holography, and pathology image analysis. Since 2011, he has been the chair of the International Commission on Illumination (CIE) Technical Committee 8-07 "Multispectral Imaging."

P. Scott Carney
Editor-in-Chief, JOSA A
University of Illinois at Urbana-Champaign