

optical imaging

frequency metrology

quantum optics

light scattering in complex media

ultrafast op

excellence in leadership

laser therapeutics

service to the optics community

Meet OSA's 2015 Fellows

OSA is pleased to announce the new Fellow Members for 2015. From among 151 candidates, 76 OSA members were elected for their significant contributions to the advancement of optics and photonics, as confirmed by the Board of Directors at its meeting in October 2014.

The society appreciates the efforts of the many nominators and of the members of the Fellow Members Committee who reviewed all of the nominations. Chaired by Timothy J. Carrig, the committee included Juan Campos, Katherine Hall, Hiromasa Ito, Fredrik Laurell, Lenore McMackin, Alan C. Nilsson, Sergei K. Turitsyn, Peter J. Winzer, Xiacong Larry Yuan, Halina Rubinsztein-Dunlop and A. Catrina Coleman.

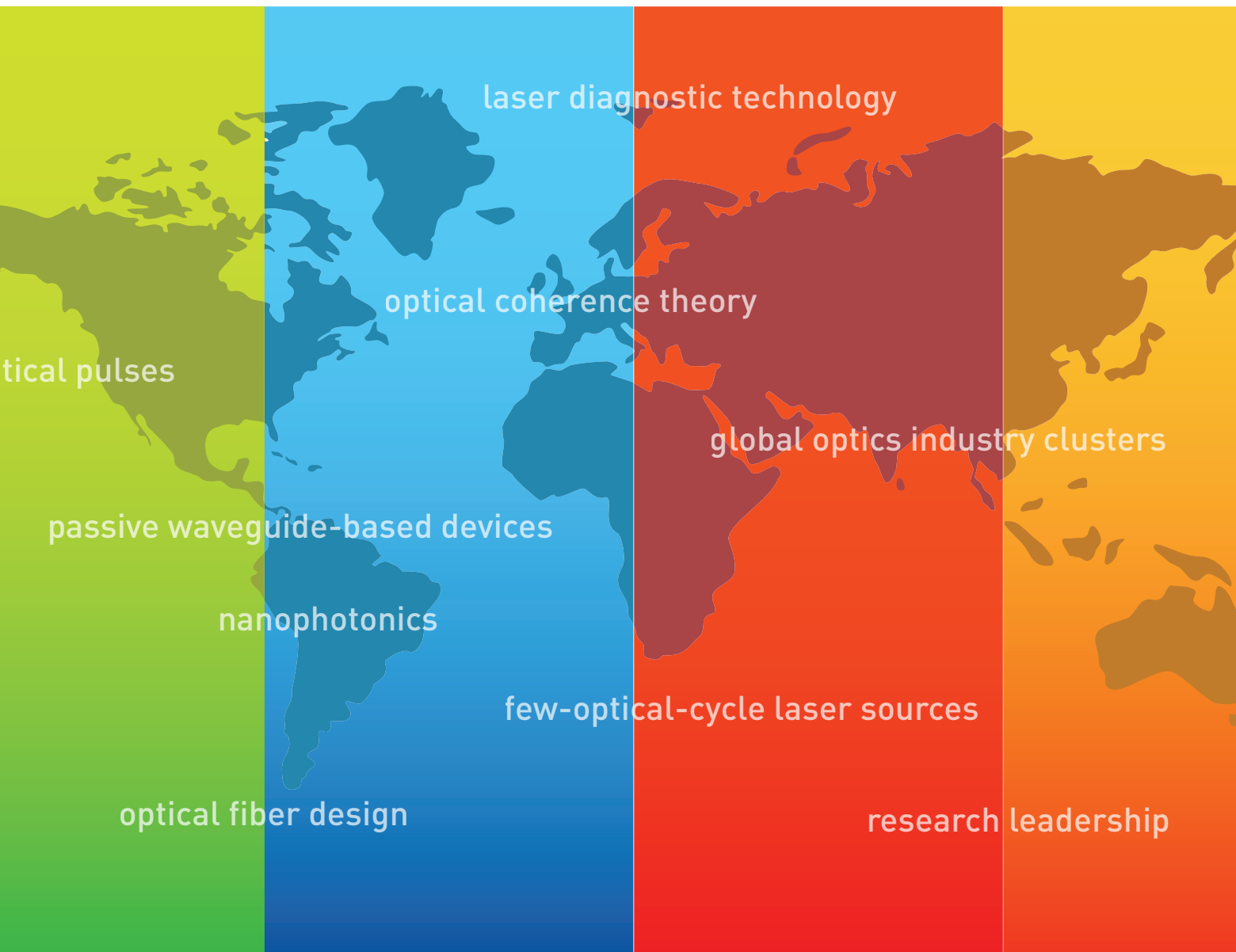
Nominations for OSA's 2016 class of Fellows are due by 15 June 2015. For more information, contact the OSA Awards Office (awards@osa.org; +1 202.416.1960) or visit www.osa.org/awards.



Peter E. Andersen

*Danmarks Tekniske Universitet,
Denmark*

For contributions in light-tissue interactions specific to optical coherence tomography, including new laser diagnostic technology for biophotonic imaging.



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Gisele Bennett

Georgia Tech Research Institute, USA

For technical innovation in the use of optical imaging and for research leadership.



Adela Ben-Yakar

University of Texas at Austin, USA

For original and innovative contributions in biomedical optics and laser therapeutics, especially in ultrafast laser microsurgery, deep-tissue-imaging endomicroscopy, plasmonic surgery and imaging with translational applications of these methods in biology, medicine and surgery.



Alexandra Boltasseva

Purdue University, USA

For seminal contributions to nanophotonics and new plasmonic materials.



Alberto Bramati

Université Pierre et Marie Curie, France
For outstanding contributions to the field of quantum optics and quantum fluid properties of exciton-polaritons in microcavity semiconductors, with the demonstration of squeezing, superfluid flow, solitons and quantized vortices.



Robert P. Breault

Breault Research Organization Inc., USA
For pioneering leadership in the formation of global optics industry clusters.



Rémi Carminati

Institut Langevin, ESPCI Paris Tech, France
For pioneering work on the theory of near-field optics and near-field thermal radiation, and for his many contributions to the field of light scattering in complex media.



P. Scott Carney

University of Illinois at Urbana-Champaign, USA
For fundamental advances in optical coherence theory and the application of statistical optics and inverse problems in near-field microscopy, coherence tomography and spectroscopy.



Giulio Cerullo

Politecnico di Milano, Italy
For pioneering work on few-optical-cycle laser sources, for seminal achievements in ultrafast spectroscopy of organics, and for service to the optics community.



Gabriella Cincotti

Università degli Studi Roma Tre, Italy
For the design and application of passive waveguide-based optical devices for advanced optical fiber communications.



Paolo De Natale

Istituto Nazionale di Ottica-CNR, Italy
For pioneering contributions to the study and development of laser-based devices and techniques for frequency metrology, particularly for atomic and molecular measurements across the infrared and THz spectral regions.



Liang Dong

Clemson University, USA
For pioneering contributions to specialty optical fiber design, materials and fabrication.



Christophe Dorrer

University of Rochester, USA
For the invention of methods and devices for the control and characterization of ultrafast optical pulses, with significant impact across a wide range of applications, from telecommunications to high-energy lasers.



Frank J. Effenberger

Huawei Technologies, USA

For outstanding and sustained contributions to the research and development of broadband optical access networks, particularly passive optical networks, and the standardization of optical access technologies.



Jason Matthew Eichenholz

Open Photonics, USA

For achievements and leadership across a broad spectrum of projects in supporting open innovation, entrepreneurship, commercialization, technology and strategic developments for multiple corporations, and for excellence in leadership at OSA.



Dean R. Evans

U.S. Air Force Research Laboratory, USA

For original contributions in the areas of engineered photorefractive materials and harvested stressed ferroelectric nanoparticles.



Carlos Ferreira

Universitat de Valencia, Spain

For significant scientific contributions and achievements in the fields of optical pattern recognition, application of anamorphic systems in optical processing and resolution in optical systems.



Mette Gaarde

Louisiana State University, USA

For outstanding experimentally relevant research focused on the production and application of ultrafast extreme ultraviolet radiation sources that exploits high-performance computing for the solutions of the time-dependent Schrödinger equation and Maxwell's wave equation.



Jean-Jacques Greffet

Institut d'Optique, France

For theoretical and experimental work on the role of surface waves in radiative heat transfer at nanoscale and emission of radiation, including achievements of large spatial coherence in thermal radiation leading to a new class of radiation emitters.



Sarath D. Gunapala

NASA Jet Propulsion Laboratory, USA

For contributions to the development of quantum-structure-based infrared detectors and focal plane arrays.



Richard Hammond

University of Carolina at Chapel Hill, USA

For outstanding technical leadership in establishing major research programs in optical metamaterials, light filamentation, and attosecond science and for pioneering scientific contributions to the fields of radiation reaction, quantum and nonlinear optics.



Aaron R. Hawkins

Brigham Young University, USA

For developments in optical communications photodiodes and receivers, specifically wafer-fused photodiodes, and for contributions in the field of optofluidics, especially hollow-core waveguide-based analysis platforms.



L. Michael Hayden

University of Maryland Baltimore County, USA

For pioneering contributions to the development of electro-optic devices for the generation of terahertz waves.



John Charles Howell

University of Rochester, USA

For innovative leadership in experimental research for quantifying information content of multidimensional classical and quantum states.



Jeffrey H. Hunt

The Boeing Company, USA

For novel applications of nonlinear optical science to interfacial industrial diagnostics, development of advanced and frequency-agile laser sources, manufacturing metrology, trans-spectral detection including imaging and communications, and information assurance technologies.



Clemens F. Kaminski

University of Cambridge, United Kingdom

For pioneering work in the development of optical methods for quantifying the kinetics of reactions in chemical and biological systems.



Inuk Kang

LGS Innovations, LLC, USA

For ultrafast measurements of optical processes, properties and pulses, and demonstrations of integrated optical devices for optical communication systems with advanced modulation formats.



Kazuro Kikuchi

University of Tokyo, Japan

For contributions to semiconductor lasers and photonic materials, processing and device designs, including high-reliability strained-layer lasers.



Hiroo Kinoshita

University of Hyogo, Japan

For pioneering contributions to the development of extreme-ultraviolet (EUV) lithography, from the very first publication, the first EUV demonstration experiments, and continued significant contributions through his laboratory for students and industry visitors at Hyogo University.



Keisuke Kojima

Mitsubishi Electric Research Laboratories, USA

For outstanding contributions in semiconductor lasers, in particular high-speed uncooled Fabry-Perot and distributed-feedback (DFB) lasers for optical access and data communications, and narrow-linewidth DFB lasers for coherent optical communications.



Junichiro Kono

Rice University, USA

For pioneering contributions to fundamental optical studies of nanostructures, including carbon nanotubes and semiconductor heterostructures, and their optoelectronic device applications.



Todd D. Krauss

University of Rochester, USA

For major contributions to the measurement and understanding of the spectroscopy and excited-state relaxation dynamics in semiconductor nanocrystals and carbon nanotubes at both the ensemble and single-particle levels.



Sophie La Rochelle

Université Laval, Canada

For contributions to optical communications by proposing innovative fiber optic components such as super-structured fiber Bragg gratings for chromatic dispersion equalizers, multi-wavelength fiber lasers and optical code-division multiplexing.



Sang Bae Lee

Korea Institute of Science & Technology, Korea

For significant contributions to the development of optical fiber devices, including fiber gratings and fiber lasers for their applications to optical communications and fiber sensors.



Ruxin Li

Shanghai Institute of Optics and Fine Mechanics, China

For his outstanding contribution in the development of ultra-high-intensity femtosecond lasers, laser wake-field acceleration, high-order harmonic generation and filamentation nonlinear optics.



Marko Lončar

Harvard University, USA

For seminal contributions to diamond nanophotonics, nanoscale optomechanics and photonic crystal devices.



Hans-Peter Loock

Queen's University, Canada

For innovative uses and development of fiber optic devices in chemical sensing and detection.



Qingming Luo

Huazhong University of Science and Technology, China

For pioneering contribution in optical neuroimaging and applications, including functional imaging of human brain activity, laser speckle imaging of cerebral blood flow and blood vessels, and mapping brain-wide neuronal networks.



Alexander I. Lvovsky

University of Calgary, Canada

For pioneering contributions to the technology of preparation, manipulation, characterization and storage of quantum states of light for applications in quantum information processing and communication.



Dan M. Marom

Hebrew University, Israel

For innovations in optical information processing of spectrally dispersed light, leading to the invention of the wavelength-selective switch, now a fundamental building block of optical networks.



R.J. Dwayne Miller

Max Planck Institute for the Structure and Dynamics of Matter, Germany

For his groundbreaking development of ultrabright femtosecond electron sources for probing atomic motions on the primary timescales governing chemistry.



Juan Carlos Miñano

Universidad Politécnica de Madrid, Spain

For the discovery of exceptional new design methods and devices in both nonimaging and imaging optics over more than three decades, with special emphasis in freeform-surface design.



Kaoru Minoshima

The University of Electro-Communications, Japan

For seminal contributions to advanced research on fundamental science and applied technology in precision metrology using ultrafast optics and optical frequency combs.



Tanya Monro

University of South Australia, Australia

For scientific contributions of international significance to optical glass materials and fibers, photonics and optical physics, most notably in nanophotonics for nonlinear optics and sensing.



Allard P. Mosk

University of Twente, The Netherlands

For pioneering the development of wave-front-shaping methods to control light propagation through scattering media, thereby opening up new perspectives on optical imaging and focusing through strongly scattering materials.



William J. Munro

NTT Basic Research Labs, Japan

For achievements in optics and photonics, as a key bridge between academia and industry in the optical quantum information field.



Moshe Nazarathy

Technion, Israel Institute of Technology, Israel

For inventing the time-lens concept in ultrafast optics, for technology and commercial development of broadband linearized analog optical transmission, and more recently for contributions to energy-efficient signal processing for coherent photonic communication.



Franco Nori

RIKEN, Japan

For fundamental contributions to quantum information science and optics, including circuit quantum electrodynamics, and the interface between quantum optics and quantum circuits.



Malini Olivo

*Singapore Bioimaging Consortium, A*STAR, Singapore, and NUI Galway, Ireland*

For pioneering contribution in clinical photodiagnosics in the area of clinical spectroscopy and imaging in early cancer detection and phototherapeutics of cancer.



Michael S. Patterson

McMaster University, Canada

For fundamental contributions to the theoretical understanding and innovative application of light-tissue interactions in diagnosis and therapy.



Thomas Pertsch

Friedrich-Schiller-Universität Jena, Germany

For groundbreaking contributions to spatio-temporal nonlinear dynamics in discrete optics, for the observation of light bullets, and for seminal contributions to metamaterial science and nanophotonics.



Ulf Peschel

Friedrich-Schiller-Universität Jena, Germany

For seminal contributions to the investigation of conservative and dissipative optical solitons and of the field dynamics in photonic lattices and PT-symmetric systems.



Viktor A. Podolskiy

University of Massachusetts Lowell, USA

For pioneering scientific contributions to the fields of strongly anisotropic metamaterials, plasmonics and the development of fundamental understanding of nonlocal effects in optical nanostructures.



Gabriel Popescu

University of Illinois at Urbana-Champaign, USA

For novel quantitative nanoscale phase imaging of cells and tissues.



Rajeev Jagga Ram

Massachusetts Institute of Technology, USA

For fundamental investigation of semiconductor laser sources and the integration of photonics with CMOS.



Yunjiang Rao

University of Electronic Science and Technology of China, China

For significant and sustained contributions to optical fiber sensors and their applications, and for outstanding leadership in promoting fiber optics in China.



David Howard Reitze

California Institute of Technology, USA

For significant contributions to the fields of ultrafast optics, spectroscopy, and gravitational-wave interferometry as well as for overall leadership of LIGO.



Roland Ryf

Bell Labs, Alcatel-Lucent, USA

For multiple contributions to optical switching and multiplexing technology including MEMS and liquid-crystal-on-silicon subsystems and spatially multiplexed transmission systems.



Brian Matthew Salzberg

University of Pennsylvania, USA

For development of optical methods in cell physiology and neuroscience, including the discovery of voltage-sensitive dyes and calcium indicator dyes, and functional imaging using these probes.



Vahid Sandoghdar

Max Planck Institute for the Science of Light, Germany

For pioneering work in the field of nano-quantum-optics through the elegant combination of concepts from quantum optics, single-molecule spectroscopy, scanning probe microscopy and plasmonics.



Norbert Scherer

University of Chicago, USA

For discovery of plasmonic optical trapping of noble-metal nanoparticles, for development of methods for two- and three-dimensional optical trapping of anisotropic nanomaterials and for demonstrating "optical binding" in the Rayleigh regime.



Konstantin V. Sokolov

University of Texas M. D. Anderson Cancer Center, USA

For key contributions to the development and applications of plasmonic nanoparticles for imaging and therapy in biomedicine.



Regina Soufli

Lawrence Livermore National Laboratory, USA

For pioneering contributions to the development and characterization of extreme ultraviolet, X-ray and gamma-ray optics.



Jun Tanida

Osaka University, Japan

For pioneering contributions to optical computing through outstanding research and sustained leadership for the creation of a new field of information photonics that merges optics, photonics and informatics.



Limin Tong

Zhejiang University, China

For seminal work in optical nanofibers and significant contributions to nanophotonics.



Michael Vasilyev

University of Texas at Arlington, USA

For pioneering experimental and theoretical contributions to multimode phase-sensitive optical parametric amplifiers, in fibers for noise-free amplification of communication signals and in crystals for noise-free amplification of images.



Guillaume Georges Vienne

*Data Storage Institute, A*STAR, Singapore, and Nanyang Technological University, Singapore*

For contributions to design, fabrication and characterization of special optical fibers, including rare-earth-doped fibers, photonic crystal fibers and microfibers, and to their applications.



Yongtian Wang

Beijing Institute of Technology, China

For significant contributions in both research and education in the fields of optical design and CAD, augmented reality and advanced 3-D display.



Michael Withford

Macquarie University, Australia

For pioneering work developing novel 3-D optical chips, and on translating scientific research to end-users in the industry and university sectors.



Maciej Wojtkowski

Institute of Physics at Nicolaus Copernicus University, Poland

For large impact in the field of optical coherence tomography (OCT) with applications in ophthalmology, in particular spectral OCT, with improved speed and sensitivity over standard OCT method.



Chongjin Xie

Alibaba Group, USA

For discoveries and inventions in the area of polarization and nonlinear effects in fibers.



Changhui Yang

California Institute of Technology, USA

For outstanding contributions to high-efficiency microscopy and phase-conjugation-based scattering reversal in tissues.



Xiaotian Steve Yao

General Photonics Corporation, USA

For the invention, development and commercialization of the opto-electronic oscillator and optical polarization devices and instruments.



Michalis N. Zervas

University of Southampton, United Kingdom

For seminal contributions to the development of advanced optical fiber amplifier configurations, fiber distributed-feedback lasers, Bragg grating theory and devices, high-power fiber lasers and nonlinear fiber optics.



Weili Zhang

Oklahoma State University, USA

For outstanding contributions to terahertz subwavelength photonics, including plasmonics, metamaterials and invisibility cloaking, and their advancement in China.



Xiang Zhou

Google Inc., USA

For outstanding contributions to high-spectral-efficiency coherent optical transmission systems and technologies.