

Meet Optica's 2024 Fellows

Congratulations to the 129 members elevated to the rank of Optica Fellow in 2024.

These members are celebrated for their outstanding contributions to our field through service, education, research, engineering and business leadership. Fellows are an important part of our community, and we thank them for their ongoing support of Optica and the field.

For more information, contact the Optica Awards Office (awards@optica.org; +1 202.416.1960) or visit optica.org/fellows.



Firooz Aflatouni
University of Pennsylvania, USA
 For interdisciplinary work on integrated photonic-electronic systems including photonic deep neural networks for direct image classification and photonic-assisted microwave imaging



Kramer Akli
Department of Energy, USA
 For leadership in establishing LaserNetUS and transforming high power laser research



Vladimir Aksyuk
National Institute of Standards & Technology, USA
 For pioneering contributions to optical switching and sensing systems utilizing micro-electro-mechanical system (MEMS) actuation principles and nanophotonics



Gonzalo R. Arce
University of Delaware, USA
 For pioneering contributions in the area of coded aperture computational imaging



Christos Argyropoulos
Pennsylvania State University, USA
 For contributions to optical metamaterials and nonlinear nanophotonics



Amit Ashok
Wyant College of Optical Sciences, University of Arizona, USA
 For the development of information-optimal imaging and sensing platforms across the electromagnetic spectrum and service to the optics community



Solomon Assefa
IBM Research, USA
 For pioneering contributions to silicon photonics from science to technology deployment, and for global advocacy of engineering education enrichment



Muyinatu A. Lediju Bell
Johns Hopkins University, USA
 For pioneering contributions to photoacoustic imaging techniques and applications for surgical guidance



Andrea Blanco-Redondo
CREOL, The College of Optics and Photonics, University of Central Florida, USA
 For her discovery of pure-quartic solitons and pioneering contributions to topological quantum photonics



Wim Bogaerts
Ghent University – IMEC, Ghent, Belgium
 For seminal contributions to design methodologies for silicon photonics and to research on programmable photonic circuits



Daniele Brida
University of Luxembourg, Luxembourg
 For outstanding contributions to the field of ultrafast optics and spectroscopy, and for actively serving the optics community



Wenshan Cai
Georgia Institute of Technology, USA
 For pioneering contributions, in terms of both original discoveries and knowledge dissemination, in the fields of plasmonics and metamaterials



Joshua Caldwell
*Vanderbilt University and
 Sensorium Technological Labs,
 USA*
 For pioneering contributions to
 our understanding of the role of
 crystal anisotropy, phonons, and
 electron-phonon coupling for IR
 nanophotonics



Filippo Capolino
*University of California,
 Irvine, USA*
 For fundamental contributions to
 optics in complex materials and
 exceptional points



Joseph Carroll
Medical College of Wisconsin, USA
 For outstanding advances in
 understanding retinal structure
 and function in individuals with
 inherited vision disorders through
 the application of non-invasive
 tools



Subhananda Chakrabarti
*Indian Institute of Technology
 Bombay, Mumbai, India*
 For sustained contributions
 towards the research and
 development of compound (III-V
 and II-VI) semiconductor-based
 optoelectronics



Fang-Chung Chen
*National Yang Ming Chiao Tung
 University, Taiwan*
 For contributions to the fields of
 organic optoelectronics, particu-
 larly for innovative application
 of structures and materials into
 photovoltaic devices



Michael Chini
University of Central Florida, USA
 For outstanding contributions
 to ultrafast optics including
 generation, characterization,
 and application of isolated
 attosecond pulses and few-
 cycle infrared pulses



Lukas Chrostowski
*The University of British Columbia,
 Canada*
 For establishing an international
 design, fabrication, and test eco-
 system in silicon photonics, and
 developing high-performance
 and photonic integrated circuit
 components



Garrett Cole
Thorlabs Inc., USA
 For advancements in precision
 optical metrology, namely the
 pioneering development and
 successful commercialization
 of novel substrate-transferred
 crystalline optical interference
 coatings



Brian M. Cullum
*University of Maryland Baltimore
 County, USA*
 For the development of optical
 SPPs nano-sensors/nano-
 biosensors and ultra-high
 resolution chemical imaging
 systems for biological and
 defense applications



Vittorio Curri
*Department of Electronics and
 Telecommunications, Politecnico
 di Torino, Italy*
 For outstanding scientific contri-
 butions on multi-band physical
 layer aware open and disaggre-
 gated optical networks



Alfredo De Rossi
*Thales Research & Technology -
 France, France*
 For pioneering contributions
 to on-chip all-optical signal
 processing and microwave
 photonics with photonic
 crystals



Ning Deng
China
 For substantial contribution to
 the research and development of
 high-capacity optical switching
 and high-speed optical fiber
 transmission systems



Jean-Michel Di Nicola
Lawrence Livermore National Laboratory, USA

For world-class scientific and engineering contributions in high-energy and high-peak-power laser systems, and key technical leadership at the National Ignition Facility



Peter Dragic
University of Illinois at Urbana-Champaign, USA

For pioneering contributions to intrinsically low nonlinearity optical fiber, fiber laser materials, and modeling



Sara Ducci
Université Paris Cité, Laboratoire Matériaux et Phénomènes Quantiques UMR 7162 CNRS, Paris, France

For significant achievements in integrated nonlinear quantum photonics from fundamentals to applications, and a deep commitment to education and mentorship



Angela Dudley
University of the Witwatersrand, South Africa

For foundational contributions to the all-digital control of structured light, and for outstanding service to the international optics community



Simin Feng
US Naval Surface Warfare Center Dahlgren Division, USA

For groundbreaking scientific and technical leadership in metamaterial transition and in creating a paradigm shift in active denial technology



Martin C. Fischer
Duke University, USA

For pioneering contributions to nonlinear optical microscopy and imaging in biomedicine, materials science, and cultural heritage



Hugo Fragnito
UNICAMP, Brazil

For outstanding and sustained contributions to nonlinear and ultrafast spectroscopy in condensed materials, nonlinear fiber optics, and optical communications



Liang Gao
University of California Los Angeles, USA

For significant contributions to ultrafast and hyperspectral optical imaging and biomedical optics



Li Ge
College of Staten Island and the Graduate Center, CUNY, USA

For pioneering and seminal contributions to non-Hermitian photonics, topological photonics, and nonlinear phenomena in laser physics



Shambhu Ghimire
SLAC National Accelerator Laboratory, USA

For pioneering contributions to strong-field and attosecond physics in condensed matter, including nonperturbative high-harmonic generation from band-insulators and quantum materials



Oliver Graydon
Nature Photonics, Springer Nature, UK

For outstanding support of optics worldwide through scientific publishing leadership and for extensively promoting the importance of photonics to society



Peter Griffiths
University of Idaho (retired), USA

For unique achievements and significant contributions to vibrational spectroscopy



Frédéric Grillot
Télécom Paris, Institut Polytechnique de Paris, France and The University of New Mexico, USA
 For his pioneering work on mid-infrared optoelectronics and quantum dot lasers for silicon photonics



Tuan Guo
Jinan University, China
 For pioneering work and outstanding contributions to energy storage monitoring using optical fiber sensing technologies



Tzung-Fang Guo
National Cheng Kung University, Taiwan
 For pioneering contributions to the development of p-i-n configuration planar heterojunction perovskite solar cells



Jianguang Han
Tianjin University / Guilin University of Electronic Technology, China
 For outstanding contributions to terahertz photonics, particularly terahertz metasurfaces, plasmonics, and manipulations



Tawfique Hasan
University of Cambridge, UK
 For transformative and sustained contributions in photonic applications of nanomaterials and pioneering ultraminiaturised computational spectrometers



Hossein Hashemi
University of Southern California, USA
 For contributions to silicon photonics integrated circuits including optical phased arrays, coherent lidar, and laser phase noise reduction



Jennifer E. Hastie
University of Strathclyde, UK
 For leadership in the photonics and quantum technology community and pioneering technical contributions in the area of narrow-linewidth lasers



Ching-Hwa Ho
National Taiwan University of Science and Technology, Taiwan
 For significant contributions to 2D semiconductor optoelectronics, optical modulation spectroscopy, and optical properties of semiconductor materials and devices



Jin Hong
Hisense Broadband Inc., USA
 For outstanding contributions in leading research and development of integrated photonic products for optical communication



Roarke Horstmeyer
Duke University, USA
 For scientific innovations and contributions as an entrepreneur in the fields of computational imaging and microscopy



Patrick Iannone
Nokia Bell Labs, USA
 For pioneering research in architectures and evolution strategies for optical access networks and long-standing leadership in the optical community



Wilbert IJzerman
Signify, The Netherlands
 For pioneering mathematical and physical research to advance design methods for imaging and non-imaging optics, and industrial leadership in lighting



Javier Antonio Jo
University of Oklahoma, USA
 For pioneering contributions to the integration of optical imaging and artificial intelligence for biomedical applications and service to the optical community



Jun-ichi Kani
NTT Access Service Systems Laboratories, NTT Corporation, Japan
 For achievements and leadership in advancing optical access architecture and technologies



Terrance J. Kessler
Laboratory for Laser Energetics, University of Rochester, USA
 For pioneering innovations in the technology and applications of large-aperture optics used for fusion and chirped-pulse-amplification lasers



Giti Khodaparast
Department of Physics, Virginia Tech, USA
 For contributions to understanding quantum and coherent states in multifunctional materials and educating researchers from underrepresented groups in science



Matthias Kling
Stanford University / SLAC National Accelerator Laboratory, USA and LMU Munich / Max Planck Institute of Quantum Optics, Germany
 For seminal contributions to field sampling at optical frequencies reaching attosecond temporal and nanometer spatial resolutions



Pei-Cheng Ku
University of Michigan, USA
 For pioneering contributions to semiconductor nanostructured optoelectronic materials, devices, and their applications



Alan Pak Tao Lau
The Hong Kong Polytechnic University, Hong Kong SAR, China
 For developing digital signal processing techniques for optical communication systems



Martin J. Leahy
University of Galway, Galway, Ireland
 For leadership in biophotonics through technological advancement of nanosensitive and angiographic OCT technologies, and exceptional contributions to education and diversity and inclusion



Ray-Kuang Lee
National Tsing Hua University, Taiwan
 For demonstrated quantum machine-learning, and the implementation of quantum noise reduction for the advanced gravitational wave detectors, and the development of quantum noise squeezing



Wei Lee
National Yang Ming Chiao Tung University, Taiwan
 For the discovery of pseudo-dielectric heating, pioneering work on nanoparticle colloids in liquid crystals, and achievements in liquid-crystal photonic devices and bio-sensing



Maciej Lewenstein
ICREA Professor at ICFO–The Institute of Photonic Sciences, Spain
 For outstanding theoretical contributions to atto-optics, attoscience, quantum optics, and quantum information



Baojun Li
Jinan University, China
 For pioneering use of poly(trimethylene terephthalate) polymer in flexible nanofibers and cell-based living nanoprobes in optical trapping and manipulation



Ming Li
CAS Institute of Semiconductors, China
 For pioneering contributions to microwave photonic signal generation and programmable optical signal processing



Chih-Lung Lin
Department of Electrical Engineering, National Cheng Kung University, Taiwan
 For distinguished and valuable contributions to the field of display technology



Jonathan T.C. Liu
University of Washington, USA
 For innovations in biomedical optics, including miniature microscopes for surgical guidance and non-destructive 3D pathology and analysis for clinical decision support



Hai-Han Lu
National Taipei University of Technology, Taiwan
 For contributions to the research and development of free-space and underwater wireless optical communications



Hanne Ludvigsen
Aalto University, Finland
 For outstanding contributions to the field of photonic crystal fibers and optical sensors



Xianshu LUO
*Institute of Microelectronics, Agency for Science, Technology and Research (IME, A*STAR), Singapore*
 For outstanding contributions to silicon photonic integration technology development and commercialization



Arka Majumdar
University of Washington, Seattle, USA
 For pioneering contributions in the field of low-power optical information science and imaging, enabled by low-dimensional materials, nanophotonics, and meta-optics



Pavel Mamyshev
Nubis Communications, USA
 For seminal contributions to nonlinear fiber optics and high-capacity optical communications, and for the pioneering invention of the all-optical regeneration method



Amalia Martínez García
Centro de Investigaciones en Óptica, México
 For significant contributions to 3D optical metrology, student training, and the advancement of science in Mexico and Latin America



Yehia Massoud
King Abdullah University for Science and Technology, Saudi Arabia
 For outstanding and sustained contributions to modeling and design of plasmonic and nanophotonic devices



Carlos A. Meriles
CUNY The City College of New York, USA
 For fundamental contributions to sensing, spin physics, and optoelectronics using color centers in diamond



Jurgen Michel
Massachusetts Institute of Technology, USA
 For pioneering contributions to germanium-on-silicon integrated photonics and to erbium-in-silicon light-emitting devices



Michael Mielke

AdValue Photonics Inc., USA

For outstanding technology and business leadership contributions to the industrial laser field and exemplary services to Optica and the photonics community



Ryuji Morita

Hokkaido University, Japan

For outstanding achievements in ultrashort structured light pulse generation/characterization and its applications



Otto Muskens

University of Southampton, UK

For outstanding and sustained contributions to nanophotonics research, particularly developing material platforms for tuning, switching, and programming of photonic devices



Arup Neogi

University of Electronic Science & Technology of China, China

For pioneering contributions to ultrafast and nonlinear effects in semiconductors and sustained global research in photonics and phononics



Ren Ng

University of California Berkeley, USA

For pioneering work developing light field cameras, as well as seminal contributions in 3D view synthesis and human visual perception



Roberto Paiella

Boston University, USA

For outstanding contributions to the development of novel optoelectronic devices based on quantum-confined systems and photonic nanostructures



Jamie Phillips

University of Delaware, USA

For pioneering contributions to optoelectronic materials and devices for infrared detectors and photovoltaics



Mark C. Phillips

Wyant College of Optical Sciences, University of Arizona, USA

For significant contributions to broadband laser spectroscopy and applications to gas sensing, characterization of solids, and plasma diagnostics



Bing Qi

NYU Shanghai, China

For outstanding and sustained contributions to the research and development of quantum secure communication and fiber optic sensing



Jessica Ramella-Roman

Florida International University, USA

For pioneering contributions to the study of polarized light transport in biological media through experimental and computational approaches



Matteo Rinaldi

Northeastern University, USA

For pioneering contributions to the research, development, and commercialization of zero-power wireless infrared sensors

Photo by M. Modoono / Northeastern University



Bryan Robinson

MIT Lincoln Laboratory, USA

For extraordinary contributions to the advancement of satellite laser communications technology



Jawad A. Salehi
Sharif University of Technology, Iran
 For contributions to the invention and fundamental principles of optical code-division multiple-access communication systems and of optical orthogonal codes



Luis Sanchez-Soto
Universidad Complutense de Madrid, Spain
 For pioneering research advancing the use of mathematical concepts in optics and quantum optics



Edward Sargent
Northwestern University, USA
 For pioneering contributions in the use of nanomaterials to produce sensitive photodetectors for infrared imaging



Tero Setälä
University of Eastern Finland, Finland
 For outstanding contributions to the foundations of electromagnetic coherence and random polarization



Xing Sheng
Tsinghua University, China
 For outstanding achievements in the research and development of advanced microscale optoelectronic devices for energy and biomedical applications



Ichiro Shoji
Chuo University, Japan
 For substantial contributions to the measurement of nonlinear optical coefficients and the design of devices from the room-temperature-bonding technique



Xuewen Shu
Huazhong Univ. of Science and Technology, China
 For outstanding and sustained contributions to the research and development of optical fiber based devices, particularly optical fiber grating technology



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University of Calgary, Canada
 For contributions to quantum information science and quantum optics, including fundamental tests of quantum phenomena and development of quantum networks



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University of Colorado at Boulder, USA
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University of Oregon, USA
 For pioneering research into high-dimensional quantum states of multimode optical fields and their use in quantum information science



Peter G.R. Smith
University of Southampton, UK
 For pioneering research and commercialisation in nonlinear optics and Bragg gratings, with applications in quantum science, sensors and optical fabrication



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Chung-Ang University, Republic of Korea
 For pioneering contributions to Brillouin slow light and Brillouin dynamic grating with significant impact on signal processing and sensing



Todd Stievater

US Naval Research Laboratory, USA

For scientific advances in quantum confined semiconductors, micro-opto-mechanical systems, waveguides, integrated photonics, and their development for DOD applications



Thibaut Sylvestre

FEMTO-ST Institute, CNRS, Université de Franche-Comté, France

For pioneering contributions to optical fiber and laser research and technology



Alexander Szameit

University of Rostock, Germany

For groundbreaking contributions to photonic simulations of quantum and solid state phenomena



Xiaodi Tan

Fujian Normal University, China

For contributions to holographic applications, particularly the holographic data storage technologies



Ewold Verhagen

AMOLF, Netherlands

For outstanding contributions to nanophotonics and optomechanics, and to the understanding of photonic systems with broken spatiotemporal symmetries



Kaley A. Walker

University of Toronto, Canada

For research excellence and scientific leadership in atmospheric remote sensing using applied spectroscopy, as well as extensive contributions to professional service and public outreach



Fengqiu Wang

Nanjing University, China

For pioneering contributions to ultrafast photonics and spectroscopy in low-dimensional materials



Jigang Wang

Iowa State University and Ames National Laboratory, USA

For outstanding contributions to ultrafast spectroscopy and pioneering ultralow cryogenic magneto-THz microscopy, unveiling significant light-matter quantum and coherent many-body phenomena



Pengfei Wang

Harbin Engineering Univ., China

For outstanding and sustained contributions to the research and development of photonic glasses for lasing and sensing applications



Xiangbin Wang

Tsinghua University, China

For his outstanding contributions to practical quantum key distribution



Xingjun Wang

PKU, China

For innovation and technological breakthroughs in photonic integrated circuits for applications in optical communication, microwave photonics, and optical computing



Xinqiang Wang

Peking University, China

For contributions to III-nitride semiconductor materials and optoelectronic devices, including material epitaxy and light emitting devices



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US Naval Research Laboratory, USA
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Jet Propulsion Laboratory, California Institute of Technology, USA
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North Carolina State University, USA
 For pioneering contributions to the physics and engineering of high-efficiency, high-power light-emitting-diode illumination sources



Peter Jeffrey Wisoff
Lawrence Livermore National Laboratory, USA
 For outstanding technical and program leadership in lasers and inertial confinement fusion in achieving fusion ignition in a laboratory setting



Withawat Withayachumnankul
The University of Adelaide, Australia
 For innovative contributions to terahertz photonics including metasurfaces, antennas, and integrated platforms for sensing and communications



Stephen T. C. Wong
Methodist Hospital Cancer Center and Academic Institute; Weill Cornell Medicine, USA
 For outstanding contributions in pioneering CARS imaging in medicine and high content microscopic screening for drug discovery and biological research



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National Taiwan University, Taiwan
 For outstanding achievements in high-speed vertical-cavity surface-emitting lasers and pioneering work in optoelectronic integration with light-emitting transistors and transistor lasers



Xiaojun Wu
Beihang University, China
 For outstanding contributions to ultrafast THz science and technology, particularly in developing high-energy THz sources and functional THz devices



Hai Xiao
Clemson University, USA
 For pioneering and critical contributions to innovative fabrication techniques, interrogation methods, and applications of optical fiber sensors for harsh environments



Shumin Xiao
Harbin Institute of Technology, China
 For significant contributions to the development of high-performance, reconfigurable all-dielectric metasurfaces and metadevices



Feng Yan
The Hong Kong Polytechnic University, Hong Kong
 For seminal contributions to the ultra-high gain phototransistors and next-generation organic and perovskite photovoltaics



Xincheng Yao
University of Illinois Chicago, USA
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Winnie Ye
Carleton University, Canada
 For exemplary volunteer leadership and outstanding contributions to silicon photonics research and technology including pioneering investigations in waveguide stress engineering



Shuiqing "Fisher" Yu
University of Arkansas, USA
 For technical innovations and leadership in developing SiGeSn optoelectronics infrared sensor applications



Avi Zadok
Bar-Ilan University, Israel
 For pioneering optomechanical sensing outside optical fibers



Yuebing Zheng
University of Texas at Austin, USA
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Chao Zhou
Washington University in St Louis, USA
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Benyuan Zhu
OFS Laboratories, USA
 For far reaching contributions in optical transmission systems and optical fiber development



Ce Zhu
University of Electronic Science & Technology of China, China
 For pioneering and sustained contributions to visual information coding and processing



Dan Zhu
Huazhong University of Science and Technology, China
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Vassilia Zorba
Lawrence Berkeley National Laboratory and University of California, Berkeley, USA
 For seminal and pioneering contributions in ultrafast laser plasma physics and the development of innovative applied spectroscopy technologies

Thank You to the Fellow Members Committee

- Ofer Levi**, *University of Toronto, Canada, Chair*
- Takunori Taira**, *RIKEN / IMS, Japan, Past Chair*
- Anjali Agarwal**, *LGS Innovations LLC, USA*
- Pablo Artal**, *Universidad de Murcia, Spain*
- David Atchison**, *Queensland University of Technology, Australia*
- Timothy Carrig**, *Lockheed Martin Corporation, USA*
- Pierre Chavel**, *Institut d'Optique Lab Fabry, France*
- Christopher Cole**, *Coherent Corp, USA*
- Rafael Espinosa Luna**, *Centro de Investigaciones en Optica AC, Mexico*
- Donis Flagello**, *Nikon Research Corporation of America, USA*
- Tara Fortier**, *National Institute of Standards & Technology, Canada*
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- Joseph Marron**, *Raytheon Technologies, USA*
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- Miguel Orszag**, *Universidad Mayor Santiago Chile, Chile*
- Rajpal Sirohi**, *India*
- Radan Slavik**, *University of Southampton, UK*
- Arlee Smith**, *AS-Photonics, LLC, USA*
- Brian Vohnsen**, *University College Dublin, Ireland*
- Jian Wang**, *Huazhong University of Science and Technology, China*
- Qiong-Hua Wang**, *Beihang University, China*
- Alice White**, *Boston University, USA*
- Maria Yzuel**, *Universitat Autònoma de Barcelona, Spain*