

Conference Information and Agenda of Sessions

FiO LS

Frontiers in Optics + Laser Science

Technical Conference:

27 September – 01 October 2026

Science + Industry Showcase:

29 – 30 September 2026

Joseph A. Floreano Rochester Riverside Convention Center
Rochester, New York, USA

Sponsored By:

Optica and American Physical Society – Division of Laser Science

FrontiersinOptics.org

#FiO26

Download the FiO LS Conference App



Download the event app for current information on Technical Sessions, speakers and locations, exhibitor booth numbers and descriptions, floor plans and to access conference papers.

Wi-Fi

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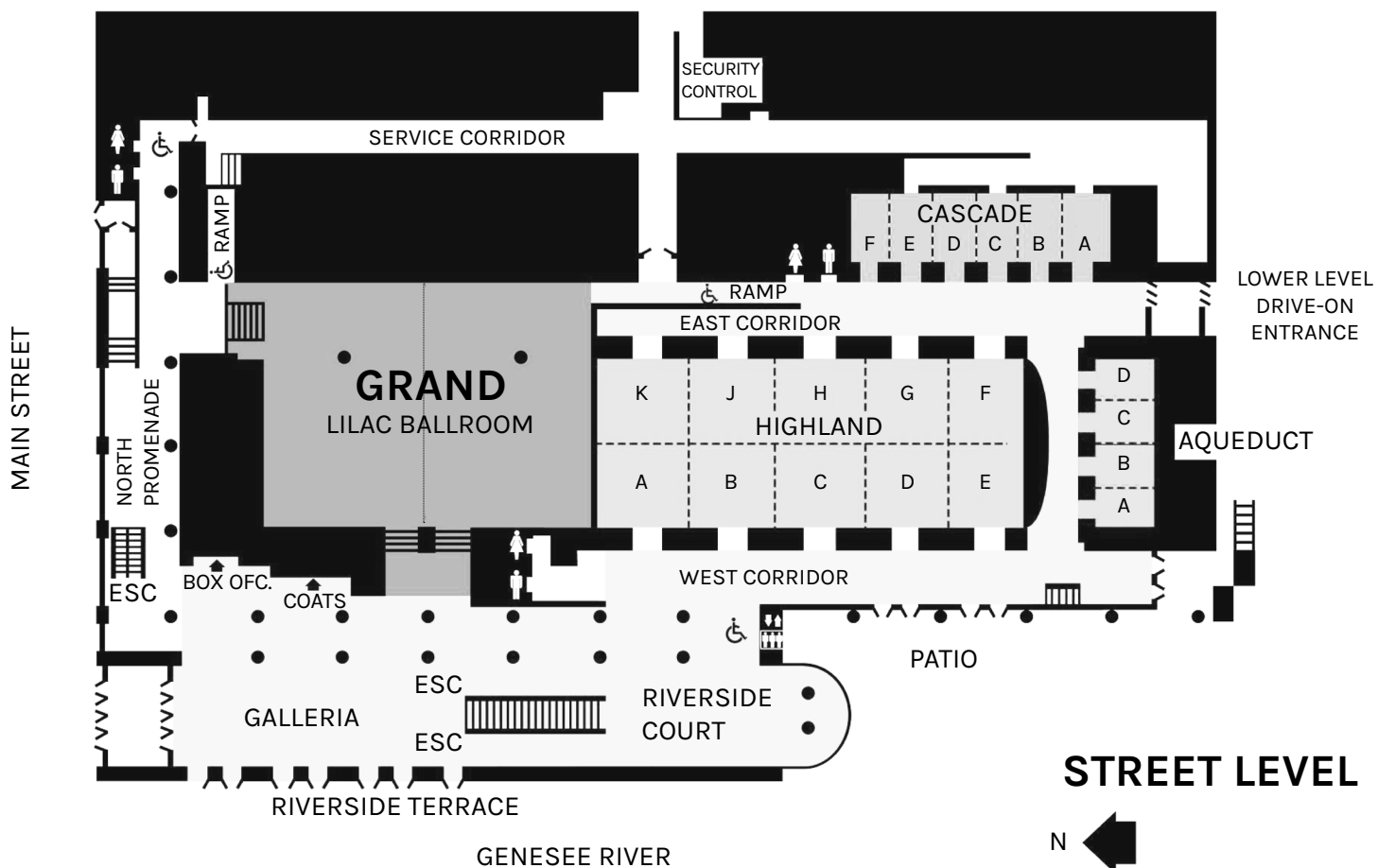
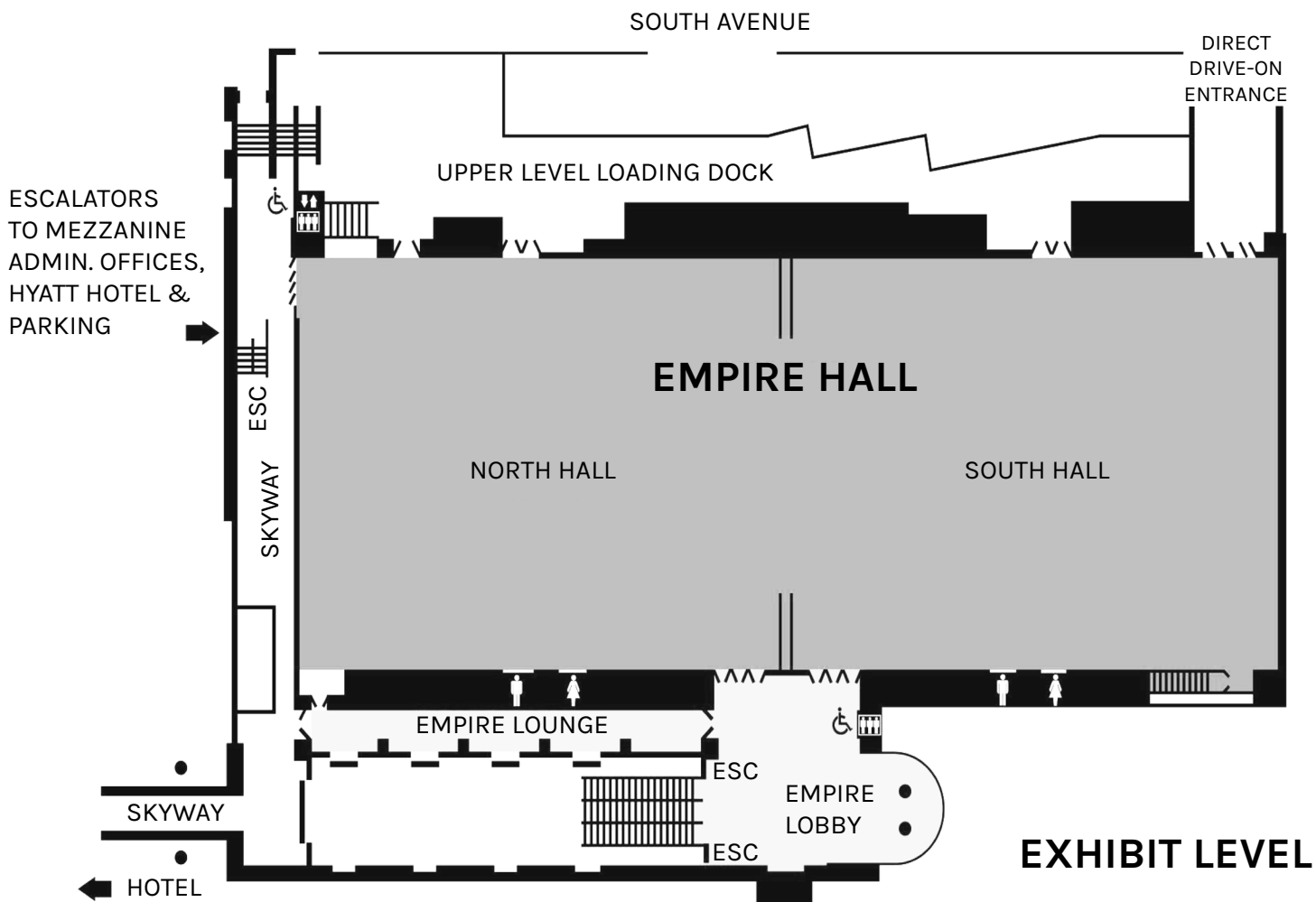
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OPTICA



Division of
Laser Science
DLS



Awards, Honors and Special Recognitions

Optica, the Optica Foundation, and the APS/Division of Laser Science congratulate the following award and honor recipients.

Optica 2026 Awards and Honors

Optica Honorary Members

The most distinguished of all Optica Member categories, Honorary Membership is awarded for unique, seminal contributions to the field of optics, and is confirmed by unanimous approval from the Awards Council and Optica Board of Directors.



Duncan T. Moore, *University of Rochester, USA*

For pioneering contributions to gradient-index optics, leadership in public policy, dedicated service to the optics community, and distinguished roles in academia, government, and professional societies



Margaret M. Murnane, *University of Colorado Boulder, USA*

For pioneering advances in ultrafast laser technology and XUV science, as well as exceptional service to the optics community through sustained mentorship and leadership

Frederic Ives Medal/Jarus W. Quinn Prize



Tony F. Heinz, *Stanford University, USA*

The Ives Medal/Quinn Prize recognizes overall distinction in optics and is Optica's highest award. It was endowed by charter member Herbert Ives, in honor of his father, photography pioneer Frederic Ives. A subsequent endowment in honor of long-time Executive Director Jarus Quinn funds the prize.

Optica honors Heinz for pioneering discoveries in photon science, outstanding leadership, and a deep commitment to education.

Heinz is a Professor of Applied Physics and Photon Science at Stanford University and the Associate Laboratory Director for Energy Sciences at SLAC National Accelerator Laboratory. He received his PhD from the University of California, Berkeley. Heinz has made seminal contributions to the understanding of surfaces, interfaces, and nanoscale materials through the development and creative application of spectroscopic techniques. His early contributions to optical second-harmonic generation helped to launch this sensitive method for probing surfaces and interfaces. He is a world leader in applying optical techniques to reveal the unique electronic and excited-state properties of 1D and 2D materials, such as carbon nanotubes, graphene, and 2D semiconductors. Heinz is a dedicated educator and active volunteer, particularly within Optica, where he served as the President in 2012. He is a Fellow of Optica

and other professional societies, and his awards include the Arthur L. Schawlow Prize in Laser Science and the William F. Meggers Award.

Esther Hoffman Beller Medal

Imrana Ashraf, *Department of Physics, Quaid-I-Azam University, Islamabad, Pakistan*

The Beller Medal recognizes outstanding contributions to education in optical science and engineering. Ashraf is recognized for her dedication to optics education at her university and at events targeting students from economically developing countries, as well as for the organization of numerous educational and outreach events in rural areas of Pakistan.

Stephen D. Fantone Distinguished Service Award

George Bayz, *Oakshire Partners, USA*

The Fantone Distinguished Service Award recognizes outstanding service to Optica. Bayz is honored for outstanding leadership as Optica Treasurer, including expertly guiding the organization through complex challenges with astute financial stewardship, steadfast integrity, and strategic vision, significantly strengthening Optica's mission and stability.

Paul F. Forman Team Engineering Excellence Award

The TOPTICLOCK Team, *TOPTICA Photonics AG, Germany*

The Forman Award recognizes team technical achievements in optical engineering. The TOPTICLOCK team is honored for the development of a commercial single-ion optical clock by combining ultra-low-noise photonics and quantum technology providing an unprecedented level of accuracy in an industrial form factor.

Nick Holonyak Jr. Award

Steven DenBaars, *Materials & ECE Departments, University of California Santa Barbara, USA*

The Holonyak Award recognizes contributions to optics based on semiconductor-based devices and optical materials, including basic science and technological applications. DenBaars is honored for pioneering contributions to high-efficiency GaN LEDs and laser diodes.

Robert E. Hopkins Leadership Award

Tommaso Calarco, *Forschungszentrum Jülich GmbH, Germany*

The Hopkins Award recognizes an individual or group who has had a significant impact on the global optics and photonics community or on society as a whole stemming from non-research oriented activities. It is presented to Calarco for key contributions in setting up a coordinated research program and for fostering international cooperation in quantum technologies.

Current as of 09 September. The updated schedule is available in the mobile app and the online schedule.

Edwin H. Land Medal

Paul M. Hubel, *Apple, Inc., USA*

The Land Medal, co-presented with the Society for Imaging Science and Technology, recognizes pioneering work empowered by scientific research to create inventions, technologies, and products. It is presented to Hubel for pioneering novel image algorithms in digital camera research; for development of optimal software-firmware strategies compatible with both existing and new hardware; and for three decades of image quality improvements that make better photographs - instantly.

Sang Soo Lee Award

Bishnu P. Pal, *Ecole Centrale School of Engineering, Mahindra University, India*

The Lee Award, presented with the Optical Society of Korea, recognizes outstanding leadership in founding or growing the optics and photonics community locally. Pal is honored for several decades of pioneering contributions and passionate leadership of several photonics initiatives in India, and nurturing of their growth through education, research, and outreach.

Emmett N. Leith Medal

Jürgen Jahns, *Fernuniversität in Hagen, Germany*

The Leith Medal recognizes seminal contributions to the field of optical information processing. Jahns is recognized for seminal contributions to novel and compact architectures for optical computing systems.

C.E.K. Mees Medal

Jens Biegert, *ICFO- The Institute of Photonic Sciences and ICREA, Catalan Institution for Research and Advanced Studies, Spain*

The Mees Medal recognizes an original use of optics across multiple fields. Biegert is recognized for pioneering the optical tools that unlock the soft-X-ray regime to transform how physics, chemistry, and quantum materials are explored through mid-IR-driven high-harmonic spectroscopy and element-specific attosecond measurements.

David Richardson Medal

William Cassarly, *Keysight Technologies, USA*

The Richardson Medal recognizes significant contributions to optical engineering, primarily in the commercial and industrial sector. Cassarly is honored for a lifetime dedication to optical engineering with a substantial positive impact on the illumination optics industry.

Edgar D. Tillyer Award

Eero Simoncelli, *Flatiron Institute and New York University, USA*

The Tillyer Award recognizes distinguished work in the field of vision. It is presented to Simoncelli for fundamental discoveries and development of important mathematical tools in the areas of visual perception, visual neuroscience, computer vision, and image processing.

Optica Treasurer's Award

Jennifer Mayfield, *Optica, USA*

The Treasurer's Award recognizes an Optica employee who contributes significantly to organizational excellence, promotes and enacts innovative solutions, and/or exemplifies inspirational leadership. Mayfield is recognized for her sustained role as one of the most innovative forces in the organization, and for her ingenuity and execution in managing the Optica Publishing Group platform and the Express journals team, reflecting her enterprising and ethical approach, and her exceptional ability to serve as a bridge between the Publishing and IT teams.

The following award and medal recipients were recognized earlier this year:

Max Born Award

Roberto Morandotti, *INRS-Energie Mat & Tele Site Varennes, Canada*

The Born Award is presented to a person who has made outstanding contributions to physical optics, theoretical or experimental. Morandotti is recognized for pioneering experiments in chip-scale quantum light sources and complex entangled states, as well as for groundbreaking contributions in nonlinear, ultrafast, and terahertz optics.

Michael S. Feld Biophotonics Award

YongKeun Park, *Korea Advanced Institute of Science and Technology (KAIST), Republic of Korea*

The Feld Award recognizes individuals for their innovative and influential contributions to the field of biophotonics, regardless of their career stage. Park is honored for pioneering the development of 3D quantitative phase imaging techniques and AI-enabled applications in biology and medicine, transforming label-free biophotonics into a powerful tool for fundamental discoveries and clinical translation.

Joseph Fraunhofer Award/Robert M. Burley Prize

Cheng-Wei Qiu, *National University of Singapore, Singapore*

The Fraunhofer Award/Burley Prize recognizes significant research accomplishments in the field of optical engineering. It is presented to Qiu for his pioneering works in interfacial optics of low-dimensional and van der Waals materials with photonic nanostructures, fusing multiscale symmetry, topology, and geometry from within natural crystals and meta-optics.

Ellis R. Lippincott Award

Juergen Popp, *Leibniz Institute of Photonic Technology Jena, and Institute of Physical Chemistry and Abbe Center of Photonics, Friedrich-Schiller University Jena, Germany*

The Lippincott Award, co-presented with the Coblentz Society and the Society for Applied Spectroscopy, recognizes contributions to vibrational spectroscopy. Popp is honored for pioneering work in translational clinical Raman spectroscopy, together with his leadership in establishing Raman as one of the most important analytical approaches, which has transformed the field and inspired worldwide scientific innovation.

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Adolph Lomb Medal

Sergio Carbajo, *University of California Los Angeles and SLAC National Accelerator Laboratory, Stanford University, USA*

The Lomb Medal recognizes noteworthy contributions made to optics at an early career stage. It is presented to Carbajo in recognition of the development of first-principles methodologies and seminal contributions to controlling ultrafast photonic and electronic wavepackets and drive processes in quantum matter with unprecedented space-time precision at elementary scales.

Leonard Mandel Quantum Optics Award

Hoi-Kwong Lo, *Centre for Quantum Technologies (CQT), National University of Singapore, Singapore*

The Mandel Award recognizes distinguished contributions to the foundations of statistical and quantum optics, and/or applications in advanced technologies. Lo is honored for distinguished contributions to the applications of quantum optics, quantum information science, including the invention of decoy-state QKD, measurement-device-independent QKD, and all-photonic quantum repeater.

William F. Meggers Award

Majed Chergui, *École Polytechnique Fédérale de Lausanne, Switzerland, and Elettra Sincrotrone Trieste, Italy*

The Meggers Award recognizes outstanding work in spectroscopy. Chergui is honored for pioneering contributions in ultrafast linear and non-linear optical and X-ray spectroscopy and his seminal studies of the electronic and structural dynamics of (bio)chemical systems and materials, which have deeply influenced the fields of chemical physics and materials science.

Kevin P. Thompson Optical Design Innovator Award

Yunfeng Nie, *Vrije Universiteit Brussel, Belgium*

The Thompson Award recognizes contributions to lens design, optical engineering, or metrology at an early career stage. It is presented to Nie for advancing optical design methodology through AI-driven freeform optimization and differentiable modeling, establishing end-to-end learning frameworks that redefine how high-performance freeform imaging systems are conceived and realized.

Charles Hard Townes Medal

Yoshihisa Yamamoto, *G-QuAT, National Institute of Advanced Industrial Science and Technology (AIST), Japan*

The Townes Medal recognizes contributions to quantum electronics. It is presented to Yamamoto for his influential work on networks of degenerate optical parametric oscillators, coherent Ising machines, and their applications.

John Tyndall Award

Graham Trevor Reed, *University of Southampton, UK*

The Tyndall Award, co-presented with the IEEE/Photonics Society, recognizes contributions to fiber optic technology. It is presented to Reed for ground-breaking contributions to silicon photonics, notably through pioneering research, advocacy, and the establishment of a widely accessible foundry platform.

Herbert Walther Award

Antoine Browaeys, *Institut d'Optique, CNRS, France*

The Walther Award, co-presented with Deutsche Physikalische Gesellschaft, recognizes distinguished contributions in quantum optics and atomic physics as well as leadership in the international scientific community. Browaeys is honored for the realization of arrays of single neutral atoms held in optical tweezers as a platform for exquisitely controlled quantum simulation of many-body physics, and their development as a candidate platform for scalable quantum computation.

R. W. Wood Prize

Jelena Vuckovic, *Stanford University, USA*

The Wood Prize recognizes an outstanding discovery, scientific or technical achievement, or invention in the field of optics. Vuckovic is recognized for pioneering contributions to integrated photonics, foundational work in quantum photonics, and the breakthrough development of a practical photonic inverse design.

Optica Fellows

121 Fellows, from 24 countries, were elected in 2026 for their significant contributions to the advancement of optics and photonics through education, research, engineering, business leadership, and service. The Fellows listed below are being recognized at FiO. View a full list of Fellows at Optica.org/2026Fellows.

Hsueh-Shih Chen, *National Tsing Hua University, Taiwan*

For contributions to the development and commercialization of quantum dot materials, color conversion films of display backlighting, and electroluminescent panels

Mini Das, *University of Houston, USA*

For pioneering contributions to low-coherence X-ray phase retrieval, imaging system development, spectral X-ray computed tomography, and image perception

Sanathana Konugolu Venkata Sekar, *Tyndall National Institute, Ireland*

For pioneering equitable biophotonics technologies, advancing optical health monitoring, driving global biophotonics standardization, and demonstrating impactful leadership in biophotonics entrepreneurship.

Naveen Nishchal, *Indian Institute of Technology Patna, India*

For pioneering contributions in information optics and holography, including optical cryptography and structured light

Aaswath P. Raman, *University of California Los Angeles, USA*

For pioneering contributions to radiative cooling and thermal photonics

Jacqueline Romero, *University of Queensland, Australia*

For her seminal contributions to quantum structured light and her pioneering role in promoting quantum science in the Philippines

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Alfred U'Ren, *Instituto de Ciencias Nucleares (UNAM), Mexico*

For foundational contributions to spontaneous parametric down conversion, spontaneous four-wave mixing, applications of quantum optics, and outstanding service and leadership.

Yanhong Xiao, *Fudan University, China*

For outstanding contributions to the development of quantum optics tools and quantum-enhanced sensors based on large ensembles of thermal atoms.

Optica Foundation Honorees

Established in 2002, the Optica Foundation carries out charitable activities in support of the society's student and early career members. It cultivates the next generation of leaders and innovators as they navigate advanced degree programs and become active members of research, engineering and business communities worldwide. For more information, visit optica.org/Foundation. The following prizes will be presented during the FiO Awards Ceremony:

Milton and Rosalind Chang Pivoting Fellowship

This fellowship provides funding to help an early-career professional advance science through non-traditional career paths such as public policy, government, and journalism.

Timothy O. Imogore, *StraalBox, Netherlands*

For his proposal, "Transforming Photonics Through Gaming: From Foundational Play to Immersive Optical Systems"

Theodor W. Hänsch Prize in Quantum Optics

This prize provides funding for early-career professionals to pursue innovative projects with the potential to make a meaningful impact on quantum technologies.

Aaron Young, *Harvard University, USA*

For his proposal, "Ultrafast and High-Resolution Spatial Light Modulation for Cold Atoms"

Ivan Kaminow Outstanding Early-Career Professional Prize

This prize recognizes an early-career member for their outstanding leadership and service to the community.

Marcelo Saito Nogueira, *University of Limerick, Ireland*

For his leadership and volunteer efforts with Optica and the optics and photonics community

APS/Division of Laser Science Awards

Arthur L. Schawlow Prize in Laser Science



Alexander L. Gaeta, *Columbia University, USA*

The Schawlow Prize recognizes outstanding contributions to basic research using lasers to advance our knowledge of the fundamental physical properties of materials and their interaction with light. Gaeta is honored for groundbreaking innovations in the fields of quantum and nonlinear optics.

Gaeta is the David M. Rickey Professor in the Department of Applied Physics and Applied Mathematics at Columbia University and is co-founder and CEO of Xscape Photonics, Inc. He received his PhD from the University of Rochester. Gaeta has made pioneering contributions to the fields of quantum and nonlinear photonics. These include key advances to nonlinear wave propagation that provided critical understanding to self-focusing and filamentation of ultrashort laser pulses, the generation of slow light via stimulated scattering, and nonlinear processes in photonic crystal fibers. He and his group have also performed seminal research in nonlinear nanophotonics that enabled photonic-chip dispersion engineering, optical frequency combs, generation of quantum states of light and all-optical signal processing. He holds 10 patents, has published more than 300 papers in quantum and nonlinear optics, and is a Thomson Reuters Highly Cited Researcher. He is a Fellow of Optica, APS and IEEE and his awards include the Charles H. Townes Medal and the Stephen D. Fantone Distinguished Service Award.

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Special Events

Amplify Optics Immersion Program

Sunday, 27 September 2026, 7:30–17:30

Early Career Development Workshop

Sunday, 27 September 2026, 12:00–17:00
University of Rochester

Women Scholars Conference

Monday, 28 September 2026, 7:30–17:30

Laser Science Symposium on

Undergraduate Research

Monday, 28 September 2026, 12:00–18:00
Cascade Room A-F

The Microgravity Advantage: In-Orbit Manufacturing of Optical Fibers and Advanced Materials Optica Technical Group Panel Discussion

Monday, 28 September, 12:45–13:45
Highland Room BJ

The Training You Wish You Had: An Optica Technical Group Panel Discussion

Monday, 28 September, 12:45–13:45
Highland Room DG

Joe Eberly Symposium

Monday, 28 September 2026, 14:00–16:00
Grand Ballroom, Hyatt Regency Rochester

1:1 Resume Reviews

(RSVP Required)

Tuesday, 29 September 2026, 10:00–14:30
Wednesday, 30 September, 10:00–14:30
Career Zone, Exhibit Floor, Booth #115

Working in Academia Q&A and Panel Discussion

Tuesday, 29 September 2026, 10:00–10:30
Optica Booth, Exhibit Floor, Booth #205

Working in Industry Q&A and Panel Discussion

Tuesday, 29 September 2026, 11:30–12:00
Optica Booth, Exhibit Floor, Booth #205
Wednesday, 30 September 2026,

Beyond the Lab: Careers, Choices & Well-being in Optics and Photonics Optica Technical Group Panel

Tuesday, 29 September, 12:00–13:00
Highland Room BJ

Hear from Program Managers: US Federal Funding & Collaboration Opportunities

Tuesday, 29 September, 12:30–13:45
Showfloor Theater, Empire Hall

Ultrafast Optical Phenomena Technical Group Rapid-Fire Session

Tuesday, 29 September, 13:00–14:00
Highland DG

Optica Member Networking Event

Tuesday, 29 September 2026, 14:00–15:00
Optica Booth #205, Empire Hall

Technology Showcase: From Prompt to Product - How Agentic AI is Changing Engineering, Speaker Dan Young, Sales & Applications Manager of Liquid Instruments

Tuesday, 29 September, 15:00–15:30
Empire Hall Theater
Presented by Liquid Instruments

Optica Annual Business Meeting

Tuesday, 29 September 2026, 17:30–18:15
Virtual

Conference Reception

Tuesday, 29 September 2026, 18:30–21:00
Riverside Court Galleria

Luminate Finals 2026

(RSVP Required)

Wednesday, 30 September 2026, 11:30–13:30
Showfloor Theater, Empire Hall

What Do You Measure? An Optica Agriphotonics Technical Group Rapid-Pitch Challenge

Wednesday, 30 September, 12:30–14:00
Highland Room DG

Optica Publishing Group Meet the Journal Editors

Wednesday, 30 September 2026, 12:30–15:30
Optica Booth #205, Empire Hall

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Snack and Chat with APS Division of Laser Science

Wednesday, 30 September 2026, 13:30–14:30
APS Booth #401

Tips and Tricks for Staying Involved

Wednesday, 30 September 2026, 14:00–14:30
Optica Booth #205, Empire Hall

AI in Optical System Design

Wednesday, 30 September 2026, 14:15–15:15
Showfloor Theater, Empire Hall

From Light to Insight: The Future of Optical and Photonic Environmental Sensing Optica Technical Group Panel Discussion

Wednesday, 30 September, 19:15–20:15
Highland Room DG

Finding Schrodinger's Cat Optica Technical Group Event

Wednesday, 30 September, 19:15–20:15
Highland Room BJ

LLE Tour

Thursday, 01 October 2026, 13:00–15:00
Laboratory for Laser Energetics, University of Rochester
Pre-Registration Required

The Institute of Optics Lab Tour

Friday, 02 October 2026, 10:00–12:00
University of Rochester
Pre-Registration Required
(Meet buses outside Main St. entrance)

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Plenary & Visionary Speakers



Clara Saraceno

Head Chair of Photonics and Ultrafast Laser Science, Ruhr University Bochum, Germany

Plenary Speaker: **High Power Ultrafast Reaches the Terahertz**

Tuesday, 29 September, 10:30–11:30, Theater, Empire Hall

Terahertz light is becoming a ubiquitous tool in many scientific fields and is also increasingly deployed in industrial settings, in inspection, non-destructive testing and other security applications. Terahertz wave “see through” optically opaque objects, and can provide rich spectroscopic information. In science, they can excite and probe a plethora of low energy phenomena in condensed matter. While these systems have seen tremendous progress in last decades, efficient, and lab-based THz generation methods combining ultra-broad bandwidth and high dynamic range (e.g., as provided by high THz average power and correspondingly high repetition rate) remain very rare, and most measurements remain too slow, which limits their wide applicability. In recent years, an emerging research area has gained speed: increase the average power of broadband THz sources using state-of-the-art, high-average power ultrafast Yb-gain based lasers providing multi-100-W to kilowatt average-power levels as excitation sources. Recent results have allowed to reach power levels in the THz domain in the multi-ten to multi-hundred milliwatts in different repetition rate regions – which was previously restricted to accelerator-type THz sources. This progress opens the door to a multiplicity of new and old research areas to be re-visited. In this talk, we review recent progress in the generation of high-average power THz-TDS. We will present the state-of-the-art of high-power ultrafast laser sources with potential for driving THz sources, current technological challenges in scaling THz average power, and applications areas that could potentially benefit from these novel sources.

About the Speaker: Clara Saraceno was born in Argentina in 1983. She completed a dual degree program in France and earned her doctorate in physics from ETH Zurich in 2012. After a postdoctoral stay at ETH Zurich and University of Neuchâtel she received the Sofja Kovalevskaja Prize from the AvH (2015) and started the Photonics and Ultrafast Laser Science Group as Associate Professor in the Faculty of Electrical Engineering at Ruhr University Bochum. In 2018, she was awarded an ERC Starting Grant followed in 2024 by a Consolidator Grant. She is a Fellow of Optica since 2022. Prof. Saraceno is now a full professor at RUB and her current research interest spans from Laser technology to Terahertz technology, laser-plasma interactions among others.



Alexander Gaeta

David M. Rickey Professor of Applied Physics at Columbia University, United States

Plenary Speaker: **Chip-Based Optical Frequency Combs**

Wednesday, 30 September, 10:30–11:30, Theater, Empire Hall

Dr. Gaeta will review his team’s recent work on Kerr frequency combs generated in microresonators. Such combs offer a rich system for studies of complex nonlinear dynamics and for applications in time and frequency metrology, spectroscopy, sensing and data communications.

About the Speaker: Alexander Gaeta received his PhD in Optics from the University of Rochester in 1991. He is the David M. Rickey Professor in the Department of Applied Physics and Applied Mathematics at Columbia University. He was on the faculty of the School of Applied and Engineering at Cornell University from 1992 to 2015 and served as its Director from 2012 to 2014. He co-founded Xscape Photonics, Inc., served as the CEO from 2022 to 2024 and is currently the President. Gaeta has made pioneering contributions to quantum and nonlinear photonics. These include key advances to nonlinear wave propagation that provided critical understanding to self-focusing and filamentation of ultrashort laser pulses, the generation of slow light via stimulated scattering, and nonlinear processes in photonic crystal fibers. He and his group have also performed seminal research in nonlinear nanophotonics that enabled photonic-chip dispersion engineering, optical frequency combs, generation of quantum states of light and all-optical signal processing. He holds 20 patents, has published more than 300 papers in quantum and nonlinear optics, and is a Thomson Reuters Highly Cited Researcher. He served as the founding Editor-in-Chief of the journal Optica. He is currently serving as Vice-President of Optica. He is a Fellow of Optica, APS, and IEEE. He is the recipient of the Charles H. Townes Medal and the Stephen D. Fantone Distinguished Service Award.

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Gregory Heckler
*NASA Laser Communications Networks,
 United States*

FiO Visionary Speaker: Monday, 28
 September, 09:15 – 10:00, *Grand Lilac
 Ballroom North*

NASA Laser Communications Networks



Jelena Vuckovic
Stanford University, United States

Laser Science Visionary Speaker:
 Tuesday, 29 September,
 09:15 – 10:00, *Grand Lilac Ballroom South*

**Classical and Quantum Photonics: from
 Interconnects to P!rocessors**



Jae-Hyeung Park
*Seoul National University, Republic Of
 Korea*

FiO Visionary Speaker: Tuesday, 29
 September, 09:15 – 10:00, *Grand Lilac
 Ballroom North*

**Toward Perceptually Realistic AR
 Glasses for the AI Era**



Philippe Guyot-Sionnest
University of Chicago, United States

Laser Science Visionary Speaker:
 Wednesday, 30 September, 09:15 – 10:00,
Grand Lilac Ballroom North

**Colloidal Quantum Dots and
 Plasmonic Enhancement for Infrared
 Optoelectronics**



Félicie Albert
*Lawrence Livermore National Laboratory,
 United States*

FiO Visionary Speaker: Wednesday, 30
 September,
 09:15 – 10:00, *Grand Lilac Ballroom North*

**Extreme Light for Discovery Science:
 Opportunities at LaserNetUS**



R.J. Dwayne Miller
University of Toronto, Canada

Laser Science Visionary Speaker:
 Thursday, 01 October, 09:15 – 10:00,
Grand Lilac Ballroom South

What is Life? Can We Measure It?



Ebrahim Karimi
Chapman University, United States

FiO Visionary Speaker: Thursday, 01
 October, 09:15 – 10:00, *Grand Lilac
 Ballroom North*

**Shaping Light for Quantum
 Technologies**

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Frontiers in Optics + Laser Science

27 September – 01 October 2026

Joseph A. Floreano Rochester Riverside Convention Center, Rochester, New York, USA
 Frontiers in Optics + Laser Science will be presented as an in-person event with on-demand content.
Eastern Daylight Time (UTC –04:00)

Agenda of Sessions — Sunday, 27 September

08:00–17:30	Registration, <i>Galleria</i>
14:00–17:00	X-Lites Network - Early Career Development Workshop, <i>University of Rochester, NY, USA</i>

Monday, 28 September

Eastern Daylight Time (EDT, UTC -04:00)	FiO Grand Lilac Ballroom North	FiO Highland Room AK	FiO Highland Room BJ	FiO Highland Room CH	FiO Highland Room DG	LS Grand Lilac Ballroom South
07: 00–17:00	Registration, <i>Galleria</i>					
08:00–09:00	FM1A • Complex States of Light	FM1B • Photonic Mode Design	FM1C • Novel Optical Fibers: Multicore, Hollow Core and Beyond	FM1D • Visible-Wavelength Integrated Photonic Devices	FM1E • Optical Methods for Biomedical Characterization	LS Dissertation Award Presentations (ends at 09:30)
09:00–09:15	Break					
09:15–10:00	FM2A • FiO Visionary Session I: Space Optics (Gregory Heckler), <i>Grand Lilac Ballroom North</i>					
10:00–10:30	Coffee Break, <i>Riverside Court Galleria</i>					
10:30–12:30	FM3A • Space Optics Theme: Space Optics in NASA Programs	FM3B • Quantum Information Processing	FM3C • Free Space, Satellite and Advanced Optical Communication Links	FM3D • Scalable Integrated Photonic Platforms and Devices	FM3E • Optical Coherence Tomography	LM3F • Advances in Nanophotonics, Metamaterials and Polaritonics
12:00–18:00	APS Symposium on Undergraduate Research, <i>Cascade Room AF</i>					
12:30–14:00	Lunch Break (on your own)					
12:45–13:45	The Microgravity Advantage: In-Orbit Manufacturing of Optical Fibers and Advanced Materials Optica Technical Group Panel Discussion, <i>Highland Room, BJ</i> <i>Optica Members Only. RSVP Requested</i>					
12:45–13:45	The Training You Wish You Had: An Optica Technical Group Panel Discussion, <i>Highland Room DG</i> <i>Optica Members Only. RSVP Requested</i>					
14:00–16:00	Joe Eberly Symposium, <i>Grand Ballroom, Hyatt Regency Rochester</i>					
14:00–15:30	FM4A • Space Optics Theme: Novel Space Optics (enda at 15:00)	FM4B • Virtual Reality and Augmented Vision Theme: Novel Systems	FM4C • Optical Computing I	FM4D • TFLN and Si Photonics	FM4E • Light Matter Interactions	LM4F • Nanophotonics and Quantum Emitters
15:30–16:00	Coffee Break, <i>Riverside Court Galleria</i>					
16:00–18:00	FM5A • Space Optics Theme: Optical Communications (ends at 17:30)	FM5B • Virtual Reality and Augmented Vision Theme: Novel Debices and Algorithms	FM5C • State of the Art Devices for Optical Communications	FM5D • Design, Optimization and Nonlinear Dynamics in Photonic Integrated Circuits	FM5E • Deep Learning and Quantitative Imaging in Biomedical Applications	LM5F • Optical Platforms for Quantum Information Science I
18:15–19:00	Poster Pitch Oral Session I, <i>Highland Room DG</i>					
19:00–21:00	FiO LS Awards Ceremony & Reception (<i>Invitation only</i>)					

Key to Conference Abbreviations

F – Frontiers in Optics L – Laser Science Sp – Special Event J – Joint Session

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Agenda of Sessions — Tuesday, 29 September

Eastern Daylight Time (EDT, UTC -04:00)	FiO Grand Lilac Ballroom North	FiO Highland Room AK	FiO Highland Room BJ	FiO Highland Room CH	FiO Highland Room DG	LS Grand Lilac Ballroom South
07:00–19:00	Registration, Galleria					
08:00–09:00	FTu1A • Communication and Sensing Over Free Space and Optical Fiber Links	FTu1B • Optical Computing II	FW1C • Quantum Imaging	FTu1D • Optical and Photonics Devices	FTu1E • Ultrafast Optical Interactions	LTu1F • XFEL and Strong-Field Science
09:00–09:15	Break					
09:15–10:00	FTu2A • FiO Visionary Session II: Virtual Reality and Augmented Vision (Jae-Hyeung Park), Grand Lilac Ballroom North					LTu2B •° LS Visionary Session I (Jelena Vuckovic)
10:00–15:30	Science + Industry Showcase Theater, Empire Hall			Science + Industry Showcase Exhibit Hall, Empire Hall		
	JTU3A • Joint Plenary Session I, 10:30–11:30 Hear from Program Managers: Town Hall & Expert Roundtables, (12:30–13:45) Poster Pitch Oral Session II (14:00–14:45) Technology Showcase: From Prompt to Product: How Agentic AI is Changing Engineering, Speaker Dan Young, Sales & Applications Manager of Liquid Instruments (15:00–15:30) Presented by  LIQUID INSTRUMENTS			Exhibition Hall Hours 10:00–15:30 Coffee Break with Exhibitors, 10:00–10:30 Sponsored by American Elements, American Institute of Physics and Optimax Career Zone, Booth 115, 10:00–15:30 Optica Booth, Booth 205, 10:00–15:30 APS Booth, Booth 401, 10:00–15:30 Meet the APS Journal Editors, Booth 401, 11:30–12:30, Lunch with Exhibitors, 12:00–14:00 JTU4A • Poster Session I, 11:30–13:00 JTU5A • Poster Session II, 14:00–15:30 Coffee Break with Exhibitors, 15:00–15:30 Sponsored by American Elements, American Institute of Physics and Optimax		
12:00–13:00	Beyond the Lab: Careers, Choices & Well-being in Optics and Photonics Optica Technical Group Panel, Highland BJ. Optica Members Only. RSVP Requested					
13:00–14:00	Ultrafast Optical Phenomena Technical Group Rapid-Fire Session, Highland DG Optica Members Only. RSVP Requested					
15:30–17:00	FTu6A • Programmable Photonics for Computing and Signal Processing	FTu6B • Virtual Reality and Augmented Vision Theme: Future Displays	FTu6C • Advances in Biomedical Technology and Applications I	FTu6D • Thermal and IR Light	FTu6E • Attoscience	LTu6F • Optical Platforms for Quantum Information Science II
17:00–17:15	Break					
17:15–18:30	Postdeadline Paper Presentations, Grand Lilac Ballroom South					
17:30–18:15	Optica Annual Business Meeting (Virtual)					
18:30–21:00	FiO/LS Conference Reception, Riverside Court Galleria					

Key to Conference Abbreviations

F – Frontiers in Optics L – Laser Science Sp – Special Event J – Joint Session

Current as of 09 September. The updated schedule is available in the mobile app and the online schedule.

Agenda of Sessions — Wednesday, 30 September

Eastern Daylight Time (EDT, UTC -04:00)	FiO Grand Lilac Ballroom North	FiO Highland Room AK	FiO Highland Room BJ	FiO Highland Room CH	FiO Highland Room DG	LS Grand Lilac Ballroom South
07:30–18:00	Registration, <i>Galleria</i>					
08:00–09:00	FW1A • Advances in Biomedical Technology and Applications II	FW1B • Advanced Optical Microscopy and Imaging	W1C • Atomic Control and Sensing	FW1D • Optical Models and Algorithmic Learning	FW1E • Ultrafast Lasers and Applications I	LW1F • Laser Science for XFELs and Electron Accelerators
09:00–09:15	Break					
09:15–10:00	FW2A • FiO Visionary Session III: Extreme Light (Felicie Albert), <i>Grand Lilac Ballroom North</i>					LW2B • LS Visionary Session II (Philippe Guyot-Sionnest)
10:00–15:30	Science + Industry Showcase <i>Theater, Empire Hall</i>			Science + Industry Showcase <i>Exhibit Hall, Empire Hall</i>		
	JW3A • Joint Plenary Session II, 10:30–11:30 Nextcorps Luminate Finals Awards Program, 11:30–13:30 AI in Optical System Design, 14:15–15:15			Exhibition Hall Hours 10:00–15:30 Coffee Break with Exhibitors, 10:00–10:30 <i>Sponsored by American Elements, American Institute of Physics and Optimax</i> Career Zone, Booth 115, 10:00–15:50 Optica Booth, Booth 205, 10:00–15:30 APS Booth, Booth 401, 10:00–15:30 Meet the APS Journal Editors, Booth 401, 11:30–12:30 Lunch with Exhibitors, 11:30–13:30 Snack and Chat with APS Division of Laser Science, Booth 401, 13:30–14:30 OPG Meet the Editors, 14:30–15:30, <i>Optica Booth 205</i> JW4A • Poster Session III, 11:30–13:00 JW5A • Poster Session IV, 14:00–15:30 Coffee Break with Exhibitors, 15:00–15:30 <i>Sponsored by American Elements, American Institute of Physics and Optimax</i>		
12:30–14:00	Optica What Do You Measure? An Optica Agriphotonics Technical Group Rapid-Pitch Challenge, <i>Highland DG</i> <i>Optica Members Only. RSVP Requested</i>					
14:30–15:15	Poster Pitch Oral Session III, <i>Virtual Only</i>					
15:30–17:00	FW6A • Quantum Theme: Quantum Networking	JW6B • Extreme Light Theme: Technologies for Fusion and Laser-Based Radiation Sources	FW6C • Quantum Networks	FW6D • Optical Acquisition and Processing I	FW6E • Structured Light	FW6F • Optical Design, Metrology and Quantum Technology
17:00–17:30	Break					
17:30–19:00	FW7A • Quantum Theme: Integrated Photonic Approaches to Quantum Information Processing	JW7B • Extreme Light Theme: Frontiers of Strong-Field Laser Sources	FW7C • Quantum Source Engineering and Detection	FW7D • Optical Acquisition and Processing II	FW7E • Optical Fiber Sensing Applications	LW7F • Ultrafast Nanoscale Dynamics and Control
19:15–20:15	From Light to Insight: The Future of Optical and Photonic Environmental Sensing Optica Technical Group Panel Discussion, <i>Highland DG</i> <i>Optica Members Only. RSVP Requested</i>					
19:15–20:15	Finding Schrodinger’s Cat (Optica Technical Group Event), <i>Highland Room BJ</i> <i>Optica Members Only. RSVP Requested</i>					

Key to Conference Abbreviations

F – Frontiers in Optics L – Laser Science Sp – Special Event J – Joint Session

Current as of 09 September. The updated schedule is available in the mobile app and the online schedule.

Agenda of Sessions — Thursday, 01 October

Eastern Daylight Time (EDT, UTC -04:00)	FiO Grand Lilac Ballroom North	FiO Highland Room AK	FiO Highland Room BJ	FiO Highland Room CH	FiO Highland Room DG	LS Grand Lilac Ballroom South
07:30–12:30	Registration, <i>Galleria</i>					
08:00–09:00	FTh1A • Optical Coherence Tomography	FTh1B • Advanced Photonic Integration and Nanofabrication	FTh1C • Quantum Networking over Existing Optical Fibers	FTh1D • 3D and Light-Field Optics and Space-based Imaging	FTh1E • Ultrafast Lasers and Applications II	FTh1E • Spectroscopy and Interferometry
09:00–09:15	Break					
09:15–10:00	FTh2A • FiO Visionary Session IV: Quantum (Ebrahim Karimi), <i>Lilac Ballroom North</i>					LTh2B • LS Visionary Session III (R.J. Dwayne Miller)
10:00–10:30	Coffee Break, <i>Riverside Court Galleria</i>					
10:30–12:30	FTh3A • Quantum Theme: Distributing and Processing Quantum Information	JTh3B • Extreme Light Theme: Sources and Applications	FTh3C • Quantum Metrology and Sensing	FTh3D • Optical Computing III	FTh3E • Advanced Optical Sources (ends at 12:00)	LTh3F • Ultrafast Nonlinear and Strong-Field Dynamics
13:00–15:00	LLE Tour (Advance Registration Required), <i>Laboratory for Laser Energetics, University of Rochester</i>					

Friday, 02 October

10:00–12:00	The Institute of Optics Lab Tour (Advance Registration Required)
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Key to Conference Abbreviations

F – Frontiers in Optics L – Laser Science Sp – Special Event J – Joint Session

Current as of 09 September. The updated schedule is available in the mobile app and the online schedule.

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Thanks to the technical program committee members! Your time and efforts are appreciated!

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Quantum Technologies

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Virtual Reality and Augmented Vision:

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