

2022 Frontiers in Optics + Laser Science

17–20 October 2022

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

Hybrid Event - Eastern Daylight Time (UTC - 04:00)

Agenda of Sessions — Monday, 17 October

Eastern Daylight Time (EDT, UTC - 04:00)	Theme: Virtual Reality and Augmented Vision Highland A/K	FiO Highland B/J	FiO Highland C/H	FiO Highland D/G	FiO Highland E/F	LS Cascade A/B/C	Lilac Ballroom
07:00–15:30	Registration, Galleria						SpE7 • LS Undergraduate Symposium on Undergraduate Research (12:00–18:00)
08:00–09:00	FM1A • Grand Challenges	FM1B • Advanced Quantum Sources	FM1C • Super Resolution	FM1D • Advanced Transmission Technologies	FM1E • Integrated Laser Technology	LM1F • Carl E. Anderson Division of Laser Science Dissertation Award	
08:00–18:00	SpE6 • Mid-Manager Summit, Hyatt Regency Rochester - Grand Ballroom A (Invitation Only)						
09:00–17:00	Optica Member Lounge, Galleria						
09:15–10:00	FM2A • FiO Visionary Session I; Demetri Psaltis, EPFL, Switzerland, Highland A/K						
10:00–10:30	Coffee Break, East/West Corridors						
10:00–11:00	SpE19 • Optica Publishing Group's Meet the Journal Editors, Optica Member Lounge						
10:30–12:30	FM3A • Near-Eye Holographic Displays	FM3B • Error Correction and Enhanced Measurement	FM3C • Optical System for Digital Transformation	FM3D • High Speed Optical Interconnects	FM3E • Complex Light Fields I	LM3F • Quantum Information and Measurement	
12:30–13:30	SpE8 • Non-Imaging Optical Design Technical Group Networking Event, Cascade D/E/F						
14:00–15:30	FM4A • Emerging Technologies	FM4B • Atom and Ion-Based Technologies	FM4C • Advanced Sensing and Imaging I	FM4D • Fiber and Free Space Communications	FM4E • Complex Light Fields II	LM4F • Advances in Ensemble and Single Molecule Spectroscopies	
15:30–16:00	Coffee Break, East/West Corridors						
16:00–18:00	FM5A • Perception and Displays (ends at 18:30)	FM5B • Quantum Photonic Systems I	FM5C • Advanced Sensing and Imaging II	FM5D • Integrated Optical Devices	FM5E • 3D Imaging and Display Applications	LM5F • Light Driven Electronic Processes	
18:00–19:30	SpE9 • Optica Display Technology Technical Group Networking Event, Cascade D/E/F						
18:30–21:00	Awards Ceremony and Reception, Memorial Art Gallery (Invitation Only)						

Key to Conference Abbreviations

F – Frontiers in Optics
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Agenda of Sessions — Tuesday, 18 October

Eastern Daylight Time (EDT, UTC - 04:00)	Theme: Virtual Reality and Augmented Vision Highland A/K	FiO Highland B/J	FiO Highland C/H	FiO Highland D/G	FiO Highland E/F	LS Cascade A/B/C
07:00–18:30	Registration, <i>Galleria</i>					
08:00–09:00	FTu1A • Frameworks and Toolkits	FTu1B • Linear and Nonlinear Interactions	FTu1C • Space-Time Light	FTu1D • 3D Display Technology	FTu1E • Metrology and Inspection	LTu1F • Frontiers in Tabletop Ultrafast X-Ray Spectroscopy
08:30–15:00	SpE11 • Meta Academic Forum, <i>Hyatt Regency Rochester – Regency Ballroom</i>					
09:00–17:00	Optica Member Lounge, <i>Galleria</i>					
09:15–10:00	FTu2A • FiO Visionary Session II; Marty Banks, University of California, Berkeley, USA, <i>Highland A/K</i> LTu2B • LS Visionary Session I; Kimberly Budil, Lawrence Livermore National Laboratory, USA, <i>Highland B/J</i>					
10:00–15:30	Science + Industry Showcase Theater			Science + Industry Showcase		
	<p>JTu3A • Joint Plenary Session I; Scott Acton, Ball Aerospace & Technologies, USA, 10:30–11:30 Plenary Plus: Q&A with Scott Acton, 11:30–12:00 Adding More Degrees of Freedom to Optical Design Through Novel Optical Materials and Fabrication Methods, 12:15–13:15 Commercializing Meta-optics: Applications, New Opportunities and Challenges, 13:30–14:15 Technology Showcase: Deployable Optical Frequency Combs and Laser Modules for Next-Generation Quantum Sensors presented by Kevin Knabe, Director of R&D, Vescent, USA, 14:30–14:50 The Challenges of Optical Testing the Webb Telescope on Earth and Applications for the Roman Telescope, 15:00–15:45</p>			<p>Coffee Break, 10:00–10:30 Optica Foundation 20th Anniversary NextGen Lounge, 10:00–15:30 JTu4A • Joint Poster Session IA (In person), 11:30–13:00 Lunch Break, 12:30–14:00 JTu5A • Joint Poster Session IIA (In person), 14:00–15:30 Coffee Break, 15:00–15:30</p>		
11:30–13:00	JTU4B • Joint Poster Session IB (<i>ePoster Gallery</i>)					
12:00–13:00	SpE5 • Recent Advances in Laser Technology and Applications in Manufacturing, <i>Highland E/F</i> SpE12 • Speed Networking for Spectroscopy Enthusiasts, <i>Cascade D/E/F (RSVP Required)</i>					
13:00–14:00	Optica Membership “See Yourself in Optica” Mixer, <i>Optica Member Lounge</i>					
14:00–15:30	SpE13 • Meet the Editors of Physical Review, <i>Science & Industry Showcase, Coffee Station, Booth 1307</i> JTU5B • Joint Poster Session IIB (<i>ePoster Gallery</i>)					
15:30–17:00		FTu6B • Quantum Photonic Devices I	FTu6C • Hybrid Photonic Integration	FTu6D • General Information Acquisition and Processing	FTu6E • Ultrafast I	LTu6F • X-Ray Spectroscopy and Imaging
17:30–18:15	Optica Annual Business Meeting, <i>Hyatt Regency Rochester – Grand Ballroom B</i>					
17:30–19:00	JTu7A • Joint Postdeadline Papers Session I (ends at 19:15)	JTu7B • Joint Postdeadline Papers Session II				DLS Business Meeting
18:30–21:00	Conference Reception, <i>Lilac Ballroom</i>					

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Agenda of Sessions — Wednesday, 19 October

Eastern Daylight Time (EDT, UTC - 04:00)	Theme: Machine Learning Highland A/K	FiO Highland B/J	FiO Highland C/H	FiO Highland D/G	FiO Highland E/F	LS Cascade A/B/C
07:30–17:30	Registration, <i>Galleria</i>					
08:00–09:00	FW1A • Computational Imaging and Machine Learning	FW1B • Quantum Photonic Systems II	FW1C • Ultrafast II	FW1D • Clinical Applications of Optical Imaging	FW1E • Large-Scale Photonic Integration	LW1F • Metasurfaces and Plasmonics I
09:00–17:00	Optica Member Lounge, <i>Galleria</i>					
09:15–10:00	FW2A • FiO Visionary Session III; Mercedes Gimeno-Segovia, PsiQuantum, USA, <i>Highland A/K</i> LW2B • LS Visionary Session II; Frank Wise, Cornell University, USA, <i>Highland B/J</i>					
10:00–15:30	Science + Industry Showcase Theater			Science + Industry Showcase		
	<p>JW3A • Joint Plenary Session II; Monika Ritsch-Marte, Medical University of Innsbruck, Austria, 10:30–11:30</p> <p>Plenary Plus: Q&A with Monika Ritsch-Marte, 11:30–12:00</p> <p>Panel on New Government Programs and Funding Opportunities, 12:15–13:00</p> <p>Women in Optics: Challenges in Optics and Photonics Careers - Thriving at All Levels, 13:10–13:55</p> <p>Special Presentation, U.S. Representative Joe Morelle, 14:00–14:20</p> <p>Challenges of PIC Packaging for Power-Efficient High-Speed Optical Communications, 14:30–15:30</p>			<p>Coffee Break, 10:00–10:30</p> <p>Optica Foundation 20th Anniversary NextGen Lounge, 10:00–15:30</p> <p>JW4A • Joint Poster Session IIIA (In person), 11:30–13:00</p> <p>Lunch Break, 12:30–14:00</p> <p>JW5A • Joint Poster Session IVA (In person), 14:00–15:30</p> <p>Coffee Break, 15:00–15:30</p>		
11:30–13:00	JW4B • Joint Poster Session IIIB, (<i>ePoster Gallery</i>)					
12:15–14:30	SpE15 • 2022 Luminate Awards, <i>Lilac Ballroom</i>					
14:00–15:30	JW5B • Joint Poster Session IVB (<i>ePoster Gallery</i>)					
15:30–17:30	SpE16 • End User Workshop, <i>Cascade D/E/F</i>					
15:30–17:00	FW6A • Optical Computing	FW6B • Novel Wave Interactions	FW6C • Light-Matter Interactions I	FW6D • High-Resolution Optical Visualization of Ocular Structures	FW6E • Sensors and Biophotonics	LW6F • Dynamical Behavior at Fundamental Spatio-Temporal Scales
17:30–19:00	FW7A • AI in Biomedical Imaging	FW7B • Quantum Photonic Devices II	FW7C • Light-Matter Interactions II	FW7D • Novel Applications of Imaging Modalities	FW7E • Integrated Nonlinear Photonics	LW7F • Dynamical Behavior Under Extreme Conditions
19:30–20:30	SpE20 • A Day in the Life of an Industrial Scientist from Early to Late Career, <i>Highland C/H</i>					
19:30–21:00	SpE18 • Movie Night – Picture a Scientist, <i>Empire Lobby</i>					

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07:30–10:30	Registration, <i>Galleria</i>					
08:00–09:00	FTh1A • At the Intersection of Photonics and AI	FTh1B • Deep Learning and Novel Design	FTh1C • Light-Matter Interactions III	FTh1D • Biophotonics	FTh1E • Metamaterial and Metasurface	LTh1F • Cavity QED and Quantum Photonics
09:00–13:00	Optica Member Lounge, <i>Galleria</i>					
09:15–10:00	FTh2A • FiO Visionary Session IV; Maria Spiropulu, California Institute of Technology, USA	LTh2B • LS Visionary Session III; Tony Heinz, Stanford University, USA				
10:00–10:30	Coffee Break, <i>East/West Corridors</i>					
10:30–12:30	FTh3A • Machine Learning-Enabled Imaging (ends at 12:00)	FTh3B • Machine and Deep Learning in Biomedical Applications (ends at 11:45)	FTh3C • Optical Interactions	FTh3D • Advances in Technology of Optical Imaging for Biomedicine	FTh3E • Integrated Photonics for Quantum Applications	LTh3F • Metasurfaces and Plasmonics II

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