

2023 Frontiers in Optics + Laser Science

09–12 October 2023

Greater Tacoma Convention Center, Tacoma (Greater Seattle Area), Washington, USA
Frontiers in Optics + Laser Science will be presented with the Optica Laser Congress as an in-person event with on-demand content.

Pacific Daylight Time (UTC–07:00)

Agenda of Sessions — Monday, 09 October

Pacific Day-light Time (PDT, UTC-07:00)	FiO Room 315	FiO Room 316	FiO Room 317	FiO Room 318	FiO Ballroom BC	LS Ballroom D	Room 405
07:00-18:00	Registration, Level 3						
08:00-10:00	FM1A • Virtual Reality and Augmented Vision Theme: Your Next Wearable Spatial Computing Platform	FM1B • Quantum Optics and Photonics	FM1C • Optical Instrumentation	FM1D • Signal Processing in Optical Transmission	FM1E • Microscopy and Machine Learning	LM1F • Anderson Dissertation Award Presentations	
10:00-10:45	Coffee Break, Level 3						
10:00-11:00	SpE12 • Optica Publishing Group Meet the Journal Editors, Ballroom A						
10:45-11:30	FM2A • FiO Virtual Reality and Augmented Vision Visionary Session, Ballroom BC					LM2B • Strong Field, Ultrafast and Short Wavelength I	
11:00-12:30	SpE15 • The Emotionally Intelligent Manager, Using Your Heart as well as Your Head to Manage Effectively, Tacoma Room, 2nd Floor, The Marriott Tacoma Downtown						
11:45-12:45	FM3A • Virtual Reality and Augmented Vision Theme: Simulating the Next	FM3B • Ultrafast Lasers and Applications	FM3C • Nanophotonics	FM3D • Optical Amplification	FM3E • Ophthalmology and Vision		
12:00-18:00	SpE24 • Laser Science Symposium on Undergraduate Research, The Chambers Bay Ballroom, 3rd Floor, The Marriott Tacoma Downtown						
12:30-16:30	Exhibit Hours, Science and Industry Showcase, Level 5						
	SpE20 • Optica Career Fair, Science and Industry Showcase, Booth 413						
12:45-14:00	JM4A • Joint Poster Session I and Lunch with Exhibitors, Science and Industry Showcase, Level 5						
13:00-13:30	SpE36 • Starting Point: Meet the Exhibitors, Science and Industry Showcase, NextGen Lounge, Booth 601						
13:15-14:00	SpE47 • Lens Tolerancing for Success!, Science and Industry Showcase, NextGen Lounge, Booth 601						
13:30-14:30	SpE38 • Optica Technical Group Networking Mixer, Science and Industry Showcase, Booth 409						
14:00-16:00	FM5A • Virtual Reality and Augmented Vision Theme: Future's Wearable Displays	FM5B • Integrated Photonics	FM5C • Optical Fabrication (ends at 15:45)	FM5D • Systems and Sub-systems in Optical Communications	FM5E • Emerging Imaging Technologies in Biomedicine	LM5F • Quantum Information and Entanglement with Photons	FM5G • Use Photonics. Change the World: Environment Symposium (ends at 16:15)
14:15-14:45	SpE26 • Black in Optics Meetup, Science and Industry Showcase, NextGen Lounge, Booth 601						
14:30-15:30	SpE39 • A Wholistic Approach to Managing Stress in Unprecedented Times, Science and Industry Showcase, Booth 409						
15:00-15:30	SpE48 • Latin Americans in Optics Meetup, Science and Industry Showcase, NextGen Lounge, Booth 601						
16:00-16:30	Coffee Break with Exhibitors, Science and Industry Showcase, Level 5						
	Sponsored by American Elements, American Institute of Physics and Meta Platforms Technologies LLC						
16:30-18:30	FM6A • Virtual Reality and Augmented Vision Theme: Emerging Meta Optics for AR/VR (ends at 18:00)	FM6B • Novel Qubits and Emitters; Quantum Communications	FM6C • Optical Metrology	FM6D • Photonic Devices and Integrated Circuits (ends at 19:00)	FM6E • Biophotonics and Applications	LM6F • Strong Field, Ultrafast and Short Wavelength II	
17:30-21:00	FiO + LS Awards Ceremony and Reception, Museum of Glass (Invitation Only)						
19:00-20:00	SpE9 • Technical Group Event: Rapid Fire Lasers, Advancing Manufacturing through Light, Room 315						
	SpE23 • Bio-Optics Technical Groups Happy Hour, Proctor I Room, 2nd Floor, The Marriott Tacoma Downtown						

Key to Conference Abbreviations F – Frontiers in Optics L – Laser Science Sp – Special Event J – Joint Session

Agenda of Sessions — Tuesday, 10 October

Pacific Day-light Time (PDT, UTC-07:00)	FiO Room 315	FiO Room 316	FiO Room 317	FiO Room 318	FiO Ballroom BC	LS Ballroom D	Room 405
07:00–18:00	FiO Registration, <i>Level 3</i>						
08:00–09:00	FTu1A • Virtual Reality and Augmented Vision Theme: Art and Perception	FTu1B • Quantum Technologies Theme: Quantum Computing and its Applications	FTu1C • Complex States of Light I (ends at 08:45)	FTu1D • Advancement in Optical Fibers	FTu1E • Plasmonic and Metamaterials	LTu1F • Quantum Sensing (ends at 08:45)	
09:00–09:15	Break						
09:15–10:00	FTu2A • FiO Quantum Technologies Visionary Session, <i>Ballroom BC</i> LTu2B • Laser Science Visionary Session I, <i>Ballroom D</i>						
10:00–15:30	Exhibit Hours, <i>Science and Industry Showcase, Level 5</i>						
10:00–15:30	Science and Industry Showcase, Theater			Science and Industry Showcase, Exhibit Hall			
	JT <u>u</u> 3A • Joint Plenary Session I, 10:30–11:30 Quantum Systems Out-of-the-Lab: Successes, Challenges, and Opportunities, 12:15–13:15 What Chatbots Mean for Optics, 13:45–14:30 State of the Industry, 14:45–15:30			Coffee Break with Exhibitors, 10:00–10:30 <i>Sponsored by American Elements, American Institute of Physics and Meta Platforms Technologies LLC</i> JT <u>u</u> 4A • Joint Poster Session II, 11:30–13:00 Lunch with Exhibitors, 12:45–14:00 JT <u>u</u> 5A • Joint Poster Session III, 14:00–15:30 Coffee Break with Exhibitors, 15:00–15:30 <i>Sponsored by American Elements, American Institute of Physics and Meta Platforms Technologies LLC</i>			
10:30–15:30	SpE21 • Optica Career Fair, <i>Science and Industry Showcase, Booth 413</i>						
11:30–12:00	SpE34 • Plenary Q&A, NextGen Lounge Foundation, <i>Science and Industry, Showcase, NextGen Lounge, Booth 601</i>						
11:30–12:30	SpE13 • Transitioning into a Career in Optics, <i>Room 317</i> SpE40 • Tech Talk: Femtosecond Laser Cleaving of Polymers using a Non-Diffracting Beam, <i>Science and Industry, Showcase, Booth 409</i>						
12:00–12:45	SpE27 • Career Perspectives Roundtable: Academia, <i>Science and Industry, Showcase, NextGen Lounge, Booth 601</i>						
12:00–16:00	SpE11 • Photobiomodulation for the Brain: Current Status and Paths Forward Workshop, <i>Point Defiance Room, 3rd Floor, The Marriott Tacoma Downtown</i>						
12:30–13:30	SpE41 • Tech Talk: The Engineering of Industrial Laser Products, <i>Science and Industry, Showcase, Booth 409</i>						
13:00–13:30	SpE25 • Asians in Optics Meetup, <i>Science and Industry, Showcase, NextGen Lounge, Booth 601</i>						
13:00–14:00	SpE10 • Holography and Diffractive Optics Technical Group Networking Lunch, <i>Proctor I Room, 2nd Floor, The Marriott Tacoma Downtown</i>						
13:30–14:30	SpE37 • DEI Event Educational Outreach and Gender Equity in Pakistan, <i>Science and Industry Showcase, Booth 409</i>						
13:45–14:30	SpE49 • NextGen Innovators: Engineering a Greener Future in Tech, <i>Science and Industry, Showcase, NextGen Lounge, Booth 601</i>						
14:30–15:30	SpE42 • Tech Talk: LiDAR, Quantum Key Distribution (QKD) Systems, Free Space Optical (FSO) Satellite Links, <i>Science and Industry, Showcase, Booth 409</i>						
14:45–15:30	SpE28 • Career Perspectives Roundtable: Industry, <i>Science and Industry, Showcase, NextGen Lounge, Booth 601</i>						
15:30–17:00	FTu6A • Virtual Reality and Augmented Vision Theme: Design for Humans	FTu6B • Quantum Technologies Theme: Ion Trap Quantum Computing (ends at 16:30)	FTu6C • Complex States of Light II (ends at 16:45)	FTu6D • Optical System	FTu6E • Beam Steering and Lidar Applications (ends at 16:30)	LTu6F • Biology and Chemistry Applications	FTu6G • Use Photonics. Change the World: Information Symposium (ends at 17:15)
17:00–17:30	Break						
17:30–18:30	JTu7A • Joint Postdeadline Session I	JTu7B • Joint Postdeadline Session II	JTu7C • Joint Postdeadline Session III (ends at 18:18)			DLS Business Meeting	
18:30–21:00	Conference Reception, <i>Level 3</i>						

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

Agenda of Sessions — Wednesday, 11 October

Pacific Day-light Time (PDT, UTC-07:00)	FiO Room 315	FiO Room 316	FiO Room 317	FiO Room 318	FiO Ballroom BC	LS Ballroom D	Room 405
07:30–17:30	FiO Registration, Level 3						
08:00–09:00	FW1A • Machine Learning Theme: Metaoptics and Machine Learning	FW1B • Quantum Technologies Theme: Quantum Communications	FW1C • Light-Matter Interactions I (ends at 08:30)	FW1D • Coherence and Interference	FW1E • High-Speed Modulations	LW1F • Attosecond CM	
09:00–09:15	Break						
09:15–10:00	FW2A • FiO Machine Learning Visionary Session I, Ballroom BC LW2B • Laser Science Visionary Session II, Ballroom D						
10:00–15:30	Exhibit Hours, Science and Industry Showcase, Level 5						
10:00–15:30	Science and Industry Showcase, Theater			Science and Industry Showcase, Exhibit Hall			
	JW3A • Joint Plenary Session II, 10:30–11:30 How to Avoid Common Mistakes in Patent and Trade Secret Laws, 13:45–14:30			Coffee Break with Exhibitors, 10:00–10:30 Sponsored by American Elements, American Institute of Physics and Meta Platforms Technologies LLC Lunch with Exhibitors, 13:00–14:00 JW4A • Joint Poster Session IV, 14:00–15:30 Coffee Break with Exhibitors, 15:00–15:30 Sponsored by American Elements, American Institute of Physics and Meta Platforms Technologies LLC			
10:00–10:30	SpE31 • Meet the Optica Foundation, Science and Industry Showcase, NextGen Lounge, Booth 601						
10:00–15:30	SpE22 • Optica Career Fair, Science and Industry Showcase, Booth 413						
11:30–12:00	SpE35 • Plenary Q&A, NextGen Lounge Foundation, Science and Industry, Showcase, NextGen Lounge, Booth 601						
11:30–12:30	SpE43 • Tech Talk: Laser Induced Breakdown Spectroscopy Team, Science and Industry, Showcase, NextGen Lounge, Booth 601						
12:30–13:30	SpE44 • Tech Talk: Distinguished Engineer on the Technology Strategy, Architecture, and Planning team at Verizon, Science and Industry, Showcase, Booth 409						
13:00–13:30	SpE32 • Optica President Meet and Greet, Science and Industry, Showcase, NextGen Lounge, Booth 601						
13:30–14:30	SpE7 • Tech Talk: New Technologies in the Laser Space, Science and Industry Showcase, Booth 409						
13:45–14:30	SpE30 • Interviewing 101, Science and Industry, Showcase, NextGen Lounge, Booth 601						
14:30–15:30	SpE45 • Tech Talk: Camera Optics Miniaturization Towards Form Factor AR, Science and Industry, Showcase, Booth 409						
14:45–15:30	SpE33 • Outreach on a Tight Budget, Science and Industry, Showcase, NextGen Lounge, Booth 601						
15:30–17:00	FW5A • Machine Learning Theme: Optical Computing	FW5B • Quantum Technologies Theme: Quantum Technology	FW5C • Light-Matter Interactions II (begins at 15:00)	FW5D • Computational/Transformation Optics and Optics in Computing	FW5E • Lithium Niobate-Based Devices	LW5F • Ultrafast Quantum Materials	FW5G • Use Photonics. Change the World: Health Symposium
17:00–17:30	Break						
17:30–19:00	FW6A • Machine Learning Theme: Artificial Intelligence/ Machine Learning for Imaging and Spectroscopy	FW6B • Quantum Technologies Theme: From Quantum Computing to Quantum Sensors	FW6C • Ultrafast Optical Interactions in Nanostructured Materials (ends at 18:30)	FW6D • General Information Acquisition and Processing (ends at 18:30)	FW6E • Photonic Neural Networks	LW6F • Metamaterials I	
19:30–21:00	SpE14 • Movie Night – The Hunt for Planet B, Empire Lobby						

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Pacific Day-light Time (PDT, UTC-07:00)	FiO Room 315	FiO Room 316	FiO Room 317	FiO Room 318	FiO Ballroom BC	LS Ballroom D
07:30–12:30	FiO Registration, <i>Level 3</i>					
08:00–09:00	FTh1A • Machine Learning Theme: Computational Imaging and Machine Learning	FTh1B • Quantum Networking and Metrology	FTh1C • Nonlinear Interactions and Applications	FTh1D • General Information Display Technology	FTh1E • Optomechanic and MEMS	LTh1F • Metamaterials II
09:00–09:15	Break					
09:15–10:00	FTh2A • FiO Machine Learning Visionary Session II, <i>Ballroom BC</i> LTh2B • Laser Science Visionary Session III, <i>Ballroom D</i>					
10:00–10:30	Coffee Break, <i>Level 3</i>					
10:30–12:30	FTh3A • Machine Learning Theme: Inverse Design and Machine Learning	FTh3B • Novel Platforms, Methods, and Devices	FTh3C • Frequency Combs, High-Harmonic Generation, and Attoscience	FTh3D • 3D and Light-Field Optics in Information Acquisition and Display Applications	FTh3E • Frequency Combs and Nonlinear Photonics	LTh3F • Metamaterials III (ends at 11:45)

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