CLEO Technical Conference: 09 – 14 May 2021
CLEO Exhibition: 10 – 14 May 2021
A Virtual Conference - Pacific Daylight Time (PDT, UTC-07:00)

Agenda of Sessions — Sunday, 09 May

13:00–17:00	**Short Courses (SC149, SC157, SC361, SC396, SC439, SC466, SC476, SC479, SC481)**
17:00–18:30	**Optimizing Career Paths in Optics: The Guide for Young Professionals**

Agenda of Sessions — Monday, 10 May

	Virtual Room 1	Virtual Room 2	Virtual Room 3	Virtual Room 4	Virtual Room 5	Virtual Room 6	Virtual Room 7	Virtual Room 8	Virtual Room 9	Virtual Room 10	Virtual Room 11	Virtual Room 12	Virtual Room 13	Virtual Room 14	Virtual Room 15	Virtual Room 16	Virtual Room 17	Virtual Room 18	Virtual Room 19
03:00–07:00	Short Course (SC362)										Short Course (SC362)								
05:00–07:00	SM1A • Active and Passive Photonic Integration	SM1B • Optical Machine Learning and Security	SM1C • Optical Metrology for Spectroscopy	SM1D • Photodetec-tors	SM1E • Plasma Sensing and Stand-off Detection	SM1F • Spatial and Polarization Dynamics in Fibers	SM1G • Time and Distance Metrology	SM1H • Lasers on Si and Hybrid Integratoin	SM1I • A&TTR Super Topical Review on High Power laser Technology I - New Perspectives on Pulse Post-Compression	FM1J • Novel Phenomena	SM1K • 2D Terahertz Spectroscopy and Quantum Cascade	FM1L • Electron-Photon Interactions	FM1M • Theory Metasurfaces and Metamaterials	FM1N • High-Dimensional Entanglement	FM1O • Ultrafast Imaging and Spectroscopy	SM1P • Control and Coupling of Light in Fibers	SM1Q • Quantum Photonics and Machine Learning	AM1R • Advances in Imaging, Microscopy, and Inspection	AM1S • Enabling Quantum Technologies with Photonics
07:00–08:00	OSA Technical Groups: What's Next in Integrated Photonics — Hot Topics at CLEO 2021										OSA Technical Groups: What's Next in Integrated Photonics — Hot Topics at CLEO 2021								
08:00–09:00	Dedicated Exhibit Time										Dedicated Exhibit Time								
09:00–11:15	JM2A • Plenary Session I										JM2A • Plenary Session I								
11:15–12:00	Technology Showcase										Technology Showcase								
12:00–14:00	SM3A • Dual-comb Spectroscopy and Sensing	SM3B • Laser Micro-/ Nanostructur-ing	AM3C • Advances and Applications of Microscopy	SM3D • Metamaterials and Nano-structures I	AM3E • Frequency Comb Applications		JM3F • Super Symposium on Advances in Quantum Technologies: Engineering Nonclassical Light Sources	JM3G • Symposium - Hot Topics in THz Photonics: Spintronics and Biophotonics I - Spintronics and Ultrafast Magnetism - New Paradigms for Novel Terahertz Sources and Detectors	AM3H • A&TTR Super Topical Review on High Power Laser Technology II - Innovative Technologies for the Next Generation of Ultra-intense Lasers	FM3I • Structured Surfaces	SM3J • Nonlinear Optics and Photodetection in Integrated Mid-IR Devices	FM3K • Manipulation of Radiative Processes by Metasurfaces and Nanophotonics	FM3L • Scattering and Imaging	FM3M • Teleportation and Entaglement	FM3N • Quantum Enhanced Absorption and Emission	SM3O • Emerging Topics in Optical Sensing and Biomarker Detection	SM3P • Fiber Based Light Sources (ends at 13:45)	AM3Q • Environmental and Atmospheric Sensing I	AM3R • Physics of Laser Diodes
13:00–17:00	Short Courses (SC352, SC378, SC403, SC475, SC477)										Short Courses (SC352, SC378, SC403, SC475, SC477)								
14:00–15:00	OSA Technical Groups: OSA Quantum Optical Science and Technology Technical Group 20x20 Talks										OSA Technical Groups: OSA Quantum Optical Science and Technology Technical Group 20x20 Talks								
14:00–18:00	Short Course (SC410)										Short Course (SC410)								
15:00–17:00	SM4A • Free-space and Underwa-ter Communi-cation	SM4B • Heterogenous Photonic Integration	SM4C • New Approaches to Mode Coupling	JM4D • Super Symposium on Photonics Solutions for COVID-19 Challenge I			JM4E • Super Symposium on Advances in Quantum Technologies I	JM4F • Symposium - Hot Topics in THz Photonics: Spintronics and Biophotonics II - Terahertz Biophotonics from Fundamental Science to Real Life Applications	AM4G • A&TTR Super Topical Review on High Power Laser Technology III - Advanced Laser Metrology in the Context of High Power, High Energy Laser Facilities	FM4H • Photonics in Cavities and Resonators I	SM4I • Imaging Techniques/Light Manipulation	FM4J • Spatio-temporal Manipulation and Measurement of Light	SM4K • Linewidth Management of Fiber Sources	SM4L • Lithium Niobate Photonics	SM4M • Quantum Memory	SM4N • Precision Molecular Spectroscopy	AM4O • Quantum Networks	AM4P • Environmental and Atmospheric Sensing II (ends at 16:30)	AM4Q • C UV and Soft X-ray

Agenda of Sessions — Tuesday, 11 May

	Virtual Room 1	Virtual Room 2	Virtual Room 3	Virtual Room 4	Virtual Room 5	Virtual Room 6	Virtual Room 7	Virtual Room 8	Virtual Room 9	Virtual Room 10	Virtual Room 11	Virtual Room 12	Virtual Room 13	Virtual Room 14	Virtual Room 15	Virtual Room 16	Virtual Room 17	Virtual Room 18	Virtual Room 19	Virtual Room 20
03:00–07:00	Short Courses (SC270, SC455, SC478)										Short Courses (SC270, SC455, SC478)									
04:00–05:00	Meet the Editors										Meet the Editors									
04:00–05:00	OSA Technical Groups: What's Next in Ultrafast Optical Phenomena — Hot Topics at CLEO 2021										OSA Technical Groups: What's Next in Ultrafast Optical Phenomena — Hot Topics at CLEO 2021									
05:00–07:00	STu1A • Active Nanophotonic Sensing and Detection	STu1B • Laser Based Emerging Technologies	STu1C • Emerging Photonic Materials and Applications	STu1D • Generation of Ultrafast Pulses	STu1E • Space Division Multiplexing-based Communication Systems	STu1F • Microresonators	STu1G • Photonic Computing	STu1H • THz and Mid-IR Lasers	JTu1I • Symposium - Micro-Photonic Positioning, Navigation and Timing I	STu1J • High Speed Sources and Data Centre Applications (ends at 06:30)	FTu1K • Plasma Optics	FTu1L • High- and Low-Harmonic Generation	FTu1M • Topological Photonics I	FTu1N • Quantum Engineering Challenges	FTu1O • Exciton Dynamics in Two-deminsional Semiconductors	JTu1P • Symposium - Emerging Materials for Light Emission and Non-volatile Photonic Memories I: Light Emission	STu1Q • Hollow Core Fibers	JTu1R • Super Symposium on Photonics Solutions for COVID-19 Challene II	ATu1S • Quantum Communication	ATu1T • QCL
07:00–08:00	Technology Showcase										Technology Showcase									
08:00–10:00	STu2A • Applications of Optical Interferometry	STu2B • Novel Communication Techniques and Devices	STu2C • Nanophotonic Light Emitters on Chip	STu2D • Low Noise Optical and Microwave Sources	STu2E • Beam Combinig and Frequency Combs	STu2F • Seeing Through Obstructions and Turbulence	STu2G • Integrated Microcombs	STu2H • Optomechanics	JTu2I • Symposium - Micro-Photonic Positioning, Navigation and Timing II	FTu2J • THz and Frequency Comb Photonics	FTu2K • Thermal Effects in Nano-optics for Thermal Radiation (ends at 09:45)	FTu2L • Non-Hermitian Photonics	FTu2M • Metasurfaces and Wavefronts	FTu2N • Integrated Quantum Photonics	FTu2O • High-repetition-rate HHG and XFEL Sources	JTu2P • Symposium - Emerging Materials for Light Emission and Non-volatile Photonic Memories II - Non-volatile Photonic Memories	STu2Q • Large-scale Photonic Integration	JTu2R • Super Symposium on Photonics Solutions for COVID-19 Challenge III	ATu2S • Quantum Sensing	ATu2T • THz Sources and Appliations
08:00–13:00	Arthur Ashkin Memorial Symposium										Arthur Ashkin Memorial Symposium									
09:00–11:00	Advancing Mid-Managers Summit										Advancing Mid-Managers Summit									
10:00–11:00	Successfully Navigate an OSA Virtual Meeting										Successfully Navigate an OSA Virtual Meeting									
10:00–11:00	The Brightest Light Initiative: Update on the U.S. Strategy for Intense Ultrafast Lasers										The Brightest Light Initiative: Update on the U.S. Strategy for Intense Ultrafast Lasers									
10:00–12:00	Workshop: How Can Optics Contribute Towards Addressing Future Pandemics: From Advanced Developments to Challenges and Limitations?										Workshop: How Can Optics Contribute Towards Addressing Future Pandemics: From Advanced Developments to Challenges and Limitations?									
12:00–14:00	JTu3A • Joint Poster Session I										JTu3A • Joint Poster Session I									
13:00–17:00	Short Courses (SC376, SC438)										Short Courses (SC376, SC438)									
14:00–15:00	Dedicated Exhibit Time										Dedicated Exhibit Time									
15:00–16:00	OSA Technical Groups: Discussion of Seminal Papers and Outlook: From Statistical Ray Optics to the Physics of Solar Cells										OSA Technical Groups: Discussion of Seminal Papers and Outlook: From Statistical Ray Optics to the Physics of Solar Cells									
17:00–19:00	STu4A • Applications of Multimode and Multicore Fibers (ends at 18:30)	JTu4B • Super Symposium on Advances in Quantum Technologies II								STu4C • Optical Parametric Oscillators and Amplifiers	STu4D • Innovative Applications	FTu4E • Photonics in Cavities and Resonators II	FTu4F • Topological Photonics IV	FTu4G • Quantum States Creation, Amplification and Attenuation	FTu4H • Imaging with Meta-Optics	FTu4I • Quantum Materials Studied by Novel Ultrafast Spectroscopy and Microscopy	FTu4J • Ultrafast XUV and X-ray Spectroscopy		ATu4K • Non-conventional Optics and Imaging	ATu4L • Machine Learning Enhanced Biological Imaging

Agenda of Sessions — Wednesday, 12 May

	Virtual Room 1	Virtual Room 2	Virtual Room 3	Virtual Room 4	Virtual Room 5	Virtual Room 6	Virtual Room 7	Virtual Room 8	Virtual Room 9	Virtual Room 10	Virtual Room 11	Virtual Room 12	Virtual Room 13	Virtual Room 14	Virtual Room 15	Virtual Room 16	Virtual Room 17	Virtual Room 18	Virtual Room 19	Virtual Room 20
05:00–07:00	JW1A • Joint Poster Session II										JW1A • Joint Poster Session II									
07:00–08:00	OSA Technical Groups: Role and Applications of Lasers in Additive Manufacturing										OSA Technical Groups: Role and Applications of Lasers in Additive Manufacturing									
07:00–08:00	PhD-Level Transferrable Skills That Stand Out During Economic Downturns										PhD-Level Transferrable Skills That Stand Out During Economic Downturns									
07:00–08:30	Workshop: Analog vs. Digital Photonic Information Processing Workshop: Achieving Level 5 Autonomy in Self Driving Cars Workshop: Is Quantum Technology Ready for Prime Time?!										Workshop: Analog vs. Digital Photonic Information Processing Workshop: Achieving Level 5 Autonomy in Self Driving Cars Workshop: Is Quantum Technology Ready for Prime Time?!									
09:00–11:00	SW2A • UV and Visible Lasers	SW2B • Fiber Amplifiers and Oscillators	SW2C • High-bandwidth Devices and Systems	SW2D • Neural Imaging Tools	AW2E • A&TTR on Integrated Photonics in Neural Networks I	SW2F • Photonics of Low Dimensional Materials I	JW2G • Mid-infrared and Thermal Photonics I: Thermal Radiation Control and Energy	SW2H • Microreso-nators and Microcombs	SW2I • Atomic and Solid-state Quantum Sensors	SW2J • Tools for Ultrafast Spectroscopy	SW2K • Terahertz Near-field Imaging and Field Confinement	FW2L • Nonlinear Photonics I	FW2M • Topological Photonics II	FW2N • Nanophotonic Platforms for Light Manipula-tion	FW2O • Metamaterials	FW2P • Advanced Photon Detection	FW2Q • Novel Spectroscopy Techniques Developed for Materials Research	SW2R • Nonlinear Optical Phenomena at High Laser Intensities	AW2S • Atmospheric and Gas Sensing	AW2T • Advanced Optical Imaging of Cancer
11:00–12:00	Dedicated Exhibit Time										Dedicated Exhibit Time									
12:00–14:00	SW3A • Microwave Photonics	SW3B • Novel Device Applications	SW3C • Silicon Photonics	SW3D • Novel Biophotonic Illumination and Sources	AW3E • A&TTR on Integrated Photonics in Neural Networks II	SW3F • Photonics of Low Dimensional Materials II	JW3G • Symposium - Mid-infrared and Thermal Photonics II: Mid-IR Photonics from Glass to Gas (ends at 13:45)	SW3H • Light Interaction with High/Low Dimensional Materials	AW3I • A&TTR on Optical Technologies for Autonomous Cars and Mobility (ends at 13:30)	SW3J • Ultrafast Pulse Measurements	SW3K • Terahertz Emission and Pulse Shaping	FW3L • Nonlinear Photonics at Surface and Membranes	FW3M • Optical Forces and Single-molecule Manipulation (ends at 13:45)	FW3N • Machine Learning and Applications	FW3O • Metasurfaces and Lasers	FW3P • Cold Atoms and Quantum Measurement	SW3Q • Particle Acceleration, Far-IR and High Harmonic Source Generation	SW3R • Ultrafast Nonlinear Dynamics and Frequency Conversion	AW3S • LiDAR	AW3T • Advances in Compact Devices and Clinical Applications
15:00–1700	SW4A • Integrated Frequency Combs	JW4B • Super Symposium on Advanced in Quantum Technologies: Rydberg Quantum Technologies	SW4C • Intense Field Light - Matter Interaction						AW4D • A&TTR on Light-based Micro and Nano Manu-facturing	SW4E • On-Chip Optical Signal Routing	SW4F • Terahertz Spectroscopy and Applications	FW4G • Applications of Structured Light	FW4H • Nonlinear Nano-optics	FW4I • Photon Emitters and Interaces	FW4J • Metasurfaces and Materials	FW4K • Topological Physics Studied by Optical Spectroscopies	JW4L • Quantum Transduction		AW4M • Light Monitoring and Control	AW4N • ATI Enhanced Contrast and Quantiative Phase Imaging in Microscopy
17:00–18:00	Technology Showcase										Technology Showcase									

Agenda of Sessions — Thursday, 13 May

	Virtual Room 1	Virtual Room 2	Virtual Room 3	Virtual Room 4	Virtual Room 5	Virtual Room 6	Virtual Room 7	Virtual Room 8	Virtual Room 9	Virtual Room 10	Virtual Room 11	Virtual Room 12	Virtual Room 13	Virtual Room 14	Virtual Room 15	Virtual Room 16	Virtual Room 17	Virtual Room 18	Virtual Room 19	Virtual Room 20
03:00–04:00	Dedicated Exhibit Time										Dedicated Exhibit Time									
04:00–06:00	STh1A • Application of Hollow Core Fibers (ends at 05:45)	STh1B • Structured Light Sources	STh1C • Precision Timing and Synchroniza-tion	STh1D • Quantum Science with Photons, Atoms, Ions, and Phonons	STh1E • THz and Infrared Photonics	STh1F • Network Management and Machine Learning	STh1G • Novel Laser Concepts	STh1H • Biophotonic Sensors and Devices	STh1I • Short-reach Communica-tions	FTh1J • Nonlinear Potonics II	FTh1K • Near-field Imaging and Enhanced Sensing	STh1L • Laser-based Nonlinear Sources in the Mid-IR	FTh1M • BICS and More	FTh1N • Novel Ideas in Quantum Information	FTh1O • Engineering Multiphoton Sources	FTh1P • Quantum Emit-ters Coupled to Nanophotonics	STh1Q • Active Devices for Photonic Integrated Circuits	ATh1R • Micro, Nano Fabrication and 3D Printing	ATh1S • Optical Fibers for Sensing Applications I	
06:00–07:00	OSA Technical Groups: OSA Nonlinear Optics Technical Group Coffee Break										OSA Technical Groups: OSA Nonlinear Optics Technical Group Coffee Break									
07:00–09:00	STh2A • Wideband Optical Com-munication Systems and Amplifiers (ends at 08:15)	STh2B • Non-linear process Based Light and Laser Sources	STh2C • Terahertz Imaging and Detection	STh2D • Computational Microscopy	STh2E • Frequency Combs for Open-path Sensing and Imaging	STh2F • Terahertz Devices and Communica-tions	STh2G • Novel Fiber Systems and Devices	STh2H • Integrated Photonics	STh2I • Ultrabroad-band Sources and Post Compression	FTh2J • Complex Quantum Photonics	FTh2K • Strong Coupling in Excitonic and Polaritonic Systems	STh2L • MIR Emitting Lasers	FTh2M • Inverse Design	FTh2N • Photonic Computing	FTh2O • Quantum Measurement I	FTh2P • Quantum Op-tomechanical Systems	STh2Q • quantum Technology for Fundamental Physics	ATh2R • Ultrafast Laser-based Welding and Waveguide Writing	ATh2S • Optical Fibers for Sensing Applications II	ATh2T • ATTR: Space Optics Astronomical Imaging I: Free-Space Optical Communica-tions in Orbital Platforms
10:00–12:00	JTh3A • Joint Poster Session III										JTh3A • Joint Poster Session III									
12:00–13:00	OSA Technical Groups: Dialogues on Metamaterials: Past, Present, Future										OSA Technical Groups: Dialogues on Metamaterials: Past, Present, Future									
12:00–13:30	What Does It Take to be a Quantum (Optical) Engineer?										What Does It Take to be a Quantum (Optical) Engineer?									
12:00–13:30	Publishing in 2021: Challenges and Solutions										Publishing in 2021: Challenges and Solutions									
13:00–15:00		STh4A • Precision Spec-troscopy and Miniaturization Technology	STh4B • Novel Photonics	JTh4C • Super Symposium on Advances in Quantum Technologies: Quantum Lidars and Super Resolution	STh4D • High Energy, High Power Lasers I	ATh4E • Optical Energy Conversion and Radiative Cooling	ATh4F • Optical Coherence Tomography and Holographic Imaging	ATh4G • Laser Diodes and Application		ATh4H • Topological Photonics III	FTh4I • Quantum Nano-photonics	STh4J • Novel Fabrica-tion and Characteriza-tion	FTh4K • Dynamic Meta-materials	FTh4L • Nonlinear and THz Spectroscopy for Studying Quantum Materials	FTh4M • Solid-state Qubits and Emitters	STh4N • Ultrafast Amplifiers	STh4O • Metastruc-ture-based Nanophotonic Devices	ATh4P • Ultrafast Laser Enabled Structures and Functional Devices	ATh4Q • Optical Sensors	ATh4R • ATTR: Space Optics Astronomical Imaging II: Astronomical Imaging
17:00–18:00	Dedicated Exhibit Time										Dedicated Exhibit Time									
20:00–22:00										STh5A • Nonlinear Fiber Optics and Mid-IR Generation	STh5B • 2D Materials and Topological Photonics									

Agenda of Sessions — Friday, 14 May

	Virtual Room 1	Virtual Room 2	Virtual Room 3	Virtual Room 4	Virtual Room 5	Virtual Room 6	Virtual Room 7	Virtual Room 8	Virtual Room 9	Virtual Room 10	Virtual Room 11	Virtual Room 12	Virtual Room 13	Virtual Room 14	Virtual Room 15	Virtual Room 16	Virtual Room 17	Virtual Room 18	Virtual Room 19	Virtual Room 20
04:00–06:00	JF1A • Joint Postdeadline Session I	JF1B • Joint Postdeadline Session II	JF1C • Joint Postdeadline Session III																	
07:00–09:00	SF2A • Emerging Photonic Materials	SF2B • Design and Fabrication Techniques for Photonic Integrated Circuits		AF2C • A&TTR on Millimeter Wave Over Fiber for Fronthauling of 5G and Beyond	SF2D • Optical Communication Systems and Subsystems (ends at 08:45)	JF2E • Super Syposium on Advances in Quantum Technologies: Microwave-to-optical Quantum Interconnects	SF2F • Ultrafast Lasers	JF2G • Quantum Computing with Trapped Ions - Implementations and Funding	AF2S • ATTR: Space Optics Astronomical Imaging III: Earth Remote Sensing	FF2H • Temporal Photonics	FF2I • Quantum Measurements II	FF2J • Quantum Networks	FF2K • Novel Tools for Ultrafast Science - Structured Light and Waveform Synthesis	FF2L • Ultrafast and Out-of-equilibrium Dynamics in Strongly Correlated Electron Systems	SF2M • Femtosecond Oscillators	SF2N • High Energy, High Power Lasers II	SF2O • Integrated Nonlinear Photonics	SF2P • Optical Clocks and the Future of Time	AF2Q • New Technologies for Optical Imaging and Sensing	AF2R • Visible Lasers and Integrated Technology
10:00–11:30	JF3A • Plenary Session II										JF3A • Plenary Session II									
14:00–15:30	How Can CLEO Improve Inclusion at Its Meeting?										How Can CLEO Improve Inclusion at Its Meeting?									