

Agenda of Sessions — Sunday, 5 May

07:30–17:30	Registration, Concourse Level
08:30–12:30	<p>SC149: Foundations of Nonlinear Optics (Robert Fisher, R. A. Fisher Associates, USA)</p> <p>SC456: How to Start a Company (Jes Broeng, Danmarks Tekniske Universitet, Denmark)</p> <p>SC466: Silicon Integrated Nanophotonics (Yurii A. Vlasov, University of Illinois at Urbana-Champaign, USA)</p> <p>SC479: Basics of Quantum Optics for Quantum-Enabled Technologies (Bahaa Saleh, CREOL, University of Central Florida, USA)</p>
09:00–13:00	Pride in Photonics: LGBTQ+ & Ally Workshop, University Room, Hilton San Jose
13:30–17:30	<p>SC157: Laser Beam Analysis, Propagation, and Shaping Techniques (James Leger, University of Minnesota, USA)</p> <p>SC396: Frontiers of Guided Wave Nonlinear Optics (Ben Eggleton, University of Sydney, Australia)</p> <p>SC475: Metasurface Flat Optics: A New Paradigm for Optical Components Design and Manufacturing (Federico Capasso, Harvard University, USA)</p>
14:00–15:30 16:00–17:30	Be a Part of the Solution: Preventing and Responding to Harassment, University Room, Hilton San Jose
14:30–17:30	SC478: Microresonator based Optical Frequency Comb and Photonic Waveguide Supercontinuum Sources (Tobias Kippenberg, École polytechnique fédérale de Lausanne, Switzerland)

New This Year: Workshops

These sessions provide interactive learning environments and are open to all conference registrants.

Will Quantum Computing Actually Work?!

Monday, 6 May; 18:30–20:00

Room 210A

What Will Be the Largest Commercial Application for Optical Frequency Combs in 10 Years?

Monday, 6 May; 18:30–20:00

Room 210B

Beyond Awareness: What Actions Can Be Taken to Improve Diversity in STEM?

Wednesday, 8 May, 10:30–12:00

Exhibit Hall Theater II






Agenda of Sessions — Monday, 6 May

	Executive Ballroom 210A	Executive Ballroom 210B	Executive Ballroom 210C	Executive Ballroom 210D	Executive Ballroom 210E	Executive Ballroom 210F	Executive Ballroom 210G	Executive Ballroom 210H
07:00–18:00	Registration, <i>Concourse Level</i>							
08:00–10:00	FM1A • Quantum Optomechanics & Transduction	FM1B • Topological Photonics I	FM1C • Novel Phenomena in Classical Nano-Optics	FM1D • Coherent Phenomena in Coupled Resonator Networks	JM1E • Symposium on High Average Power Ultrafast Lasers: Trends, Challenges & Applications I	SM1F • Optical Clocks	SM1G • Ultra-High Capacity Transmission Techniques & SDM	SM1H • Plasmonics for Manipulation & Sensing
08:30–12:30	SC270: High Power Fiber Lasers and Amplifiers (W. Andrew Clarkson, Optoelectronics Research Center, University of Southampton, UK) SC352: Introduction to Ultrafast Pulse Shaping - Principles and Applications (Marcos Dantus, Michigan State University, USA) SC361: Coherent Mid-IR Light: Generation and Applications (Konstantin Vodopyanov, The College of Optics & Photonics, University of Central Florida, USA) SC477: Laser Radar and Remote Sensing: An Application-oriented Introduction (Fabio Di Teodoro, Raytheon, USA) SC481: Fundamentals and Applications of VCSELs (Kent Choquette, University of Illinois, USA)							
10:00–10:30	Coffee Break, <i>Concourse Level</i>							
10:30–12:30	FM2A • Quantum Optics of Atoms and Molecules	JM2B • Symposium on Nonreciprocal Photonics I	FM2C • Nonlinear Nano-Optics	FM2D • Ultrafast Optical Processes in Topological Materials	JM2E • Symposium on High Average Power Ultrafast Lasers: Trends, Challenges & Applications II	SM2F • Quantum Sensing in Solid State Systems	SM2G • Free-Space & Underwater Communication	SM2H • Optical Imaging & Sensing
11:00–12:00	OSA Presentation Feedback Program, <i>University Room, Hilton San Jose</i>							
11:00–12:30	Navigate Your Leadership Trajectory for Senior Leaders, <i>Salon VI, San Jose Marriott</i>							
12:30–13:30	Lunch Break (on your own)							
12:30–13:30	What's Next in Integrated Optics - Hot Topics at CLEO: 2019, <i>Room 230A</i>							
13:00–14:00	Social Media in 2019 Panel Discussion, <i>University Room, Hilton San Jose</i>							
13:00–14:00	Resumes, LinkedIn, and Networking (with Cheeky Scientist), <i>University Room, Hilton San Jose</i>							
13:30–17:30	SC362: Cavity Optomechanics: Fundamentals and Applications (Tobias Kippenberg, Ecole polytechnique federale de Lausanne, Switzerland) SC376: Plasmonics (Mark Brongersma; Stanford University, USA) SC378: Introduction to Ultrafast Optics (Rick Trebino, Georgia Institute of Technology, USA) SC476: QCL and QCL Combs (Jérôme Faist, ETH Zürich, Switzerland)							
13:30–15:30	FM3A • Quantum Nanophotonics I: Plasmonics & Quantum Dots	JM3B • Symposium on Nonreciprocal Photonics II	FM3C • Functional Nanophotonics Using Metasurfaces	FM3D • Ultrafast Coherent Spectroscopy	JM3E • Symposium on High Average Power Ultrafast Lasers: Trends, Challenges & Applications III	SM3F • Hot Topics in Quantum Sensing	SM3G • Data Center Lightwave Communications	SM3H • Fundamentals of Ultrafast Light Matter Interaction
14:30–16:00	Deliberate Mentoring to Advance Your Career: Special Flash Mentoring Session, <i>Guadalupe Room, Marriott</i>							
15:30–16:00	Coffee Break, <i>Concourse Level</i>							
16:00–17:00	Resumes, LinkedIn, and Networking (with Cheeky Scientist), <i>University, Hilton San Jose</i>							
16:00–17:30	Professional Development for Busy Professionals, <i>Salon VI, San Jose Marriott</i>							
16:00–18:00	FM4A • Quantum Nanophotonics II: Diamond & Boron Nitride	FM4B • Topological Photonics II	FM4C • New Systems for Quantum Communications	FM4D • Excitons in Condensed Matter Systems	SM4E • High-Average Power Laser Systems	SM4F • Precision Spectroscopy	SM4G • Access & Radio Over Fiber	SM4H • Advanced Optical Technologies for Cells and Tissues
17:30–18:30	Diversity and Inclusion Reception, <i>Winchester Room, Hilton San Jose</i>							
18:30–20:00	Lasers for Attosecond 2.0, <i>Room 230A</i>							
18:30–20:00	NEW Workshop 2: Will Quantum Computing Actually Work? <i>Room 210 A</i> NEW Workshop 3: What Will be the Largest Commercial Application for Optical Frequency Combs in 10 Years?, <i>Room 210B</i>							

Meeting Room 211 A&B	Meeting Room 211 C&D	Meeting Room 212 A&B	Meeting Room 212 C&D	Marriott Salon I & II	Marriott Salon III	Marriott Salon IV
Registration, Concourse Level						
AM1I • Photobiomodulation Therapeutics	SM1J • Beamforming & Coupling to Free Space	AM1K • Environmental & Atmospheric Sensing I	SM1L • Narrow Linewidth Fiber Lasers	FM1M • Single-Photon Sources	SM1N • Open-path Sensing & Free-electron Lasers	SM1O • Van der Waals Heterostructures
SC270: High Power Fiber Lasers and Amplifiers (W. Andrew Clarkson, Optoelectronics Research Center, University of Southampton, UK) SC352: Introduction to UltrafastPulse Shaping - Principles and Applications (Marcos Dantus, Michigan State University, USA) SC361: Coherent Mid-IR Light: Generation and Applications (Konstantin Vodopyanov, The College of Optics & Photonics, University of Central Florida, USA) SC477: Laser Radar and Remote Sensing: An Application-oriented Introduction (Fabio Di Teodoro, Raytheon, USA) SC481: Fundamentals and Applications of VCSELs (Kent Choquette, University of Illinois, USA)						
Coffee Break, Concourse Level						
AM2I • Applied Biophotonic Microscopy & Imaging	SM2J • Optical Computing & Resonator Applications	AM2K • Environmental & Atmospheric Sensing II	SM2L • Fiber Devices	FM2M • Random Numbers & Entanglement	SM2N • Enhanced Cavities for Sensing and Interferometry	SM2O • Micro & Nano Fabrication
OSA Presentation Feedback Program, University Room, Hilton San Jose						
Navigate Your Leadership Trajectory for Senior Leaders, Salon VI, San Jose Marriott						
Lunch Break (on your own)						
What's Next in Integrated Optics - Hot Topics at CLEO: 2019, Room 230A						
Social Media in 2019 Panel Discussion, University Room, Hilton San Jose,						
Resumes, LinkedIn, and Networking (with Cheeky Scientist), University Room, Hilton San Jose						
SC362: Cavity Optomechanics: Fundamentals and Applications (Tobias Kippenberg, Ecole polytechnique federale de Lausanne, Switzerland) SC376: Plasmonics (Mark Brongersma; Stanford University, USA) SC378: Introduction to Ultrafast Optics (Rick Trebino, Georgia Institute of Technology, USA) SC476: QCL and QCL Combs (Jérôme Faist, ETH Zürich, Switzerland)						
AM3I • Biomedical Imaging	SM3J • Silicon Photonics	AM3K • A&T Topical Review on Flat Optics I	SM3L • Fiber Amplifiers	JM3M • Symposium on Machine Learning Photons: Where Machine Learning & Photonics Intersect I	SM3N • Novel Optoelectronic Devices	SM3O • Guided Wave Nonlinear Devices
Deliberate Mentoring to Advance Your Career: Special Flash Mentoring Session, Guadalupe Room, Marriott						
Coffee Break, Concourse Level						
Resumes, LinkedIn, and Networking (with Cheeky Scientist), University, Hilton San Jose						
Professional Development for Busy Professionals, Salon VI, San Jose Marriott						
AM4I • Nanobiophotonics	SM4J • Light Emission & Detection	AM4K • A&T Topical Review on Flat Optics II	SM4L • Specialty Fibers	FM4M • Solid State High Harmonic Generation	SM4N • Surface Emitting Lasers	SM4O • Nonlinear Phonon Interactions
Diversity and Inclusion Reception, Winchester Room, Hilton San Jose						
Lasers for Attosecond 2.0, Room 230A						
NEW Workshop 2: Will Quantum Computing Actually Work? Room 210 A NEW Workshop 3: What Will be the Largest Commercial Application for Optical Frequency Combs in 10 Years?, Room 210B						






Agenda of Sessions — Tuesday, 7 May

	Executive Ballroom 210A	Executive Ballroom 210B	Executive Ballroom 210C	Executive Ballroom 210D	Executive Ballroom 210E	Executive Ballroom 210F	Executive Ballroom 210G	Executive Ballroom 210H
07:00–18:30	Registration, Concourse Level							
08:00–10:00	Joint Plenary Session, Grand Ballroom 220A							
10:00–17:00	Exhibit Open (10:00–17:00), Coffee Break (10:00–11:30), Exhibit Halls 1-3 Coffee Break Sponsored by  COHERENT.  THORLABS							
10:30–12:00	Quantum Information Science and Technology Initiatives, Exhibit Hall Theater I							
10:30–13:30	SC455: Integrated Photonics for Quantum Information Science and Technology (Dirk Englund, MIT, USA)							
10:30–14:30	SC403: NanoCavity Quantum Electrodynamics and Applications (Jelena Vučković, Stanford University, USA) SC410: Finite Element Modeling Methods for Photonics and Optics (Arti Agrawal, City University, UK) SC424: Optical Terahertz Science and Technology (David G. Cooke, McGill University, Canada) SC438: Photonic Metamaterials (Nader Engheta, University of Pennsylvania, USA)							
11:30–13:00	Poster Session I & Lunch, Exhibit Halls 1-3							
12:00–13:30	OIDA VIP Industry Leaders Speed Meeting Event, Booth 2605 Sponsored by  Gofoton							
13:00–15:00	JTu3A • Symposium on Quantum Information in Time-Frequency Domain I	FTu3B • PT Symmetry & Exceptional Points	FTu3C • Polaritonic Interactions in Transition Metal Dichalcogenide	FTu3D • Tailored Light-Matter Interactions	STu3E • High Peak-Power Lasers & Technologies I	STu3F • Terahertz Sensing & Devices	JTu3G • Symposium on Space-borne Quantum Sensors	STu3H • Biophotonics & Optofluidics
15:00–17:00	Coffee Break and Exhibit Only Time, Exhibit Halls 1-3 Sponsored by  COHERENT.  THORLABS							
15:00–16:30	Meet the OSA Publishing Journal Editors Ice Cream Social, Networking Zone, Booth 2605							
15:30–17:00	OIDA: Market Trends: Opportunities in Optics and Photonics, Exhibit Hall Theater I							
17:00–19:00	JTu4A • Symposium on Quantum Information in Time-Frequency Domain II	FTu4B • Manipulation of Symmetries in Optics	FTu4C • Nanophotonic Platforms for Optical Computing & Deep Learning	FTu4D • Thermal Photonics	STu4E • High Peak-Power Laser & Technologies II	STu4F • Terahertz Spectroscopy	STu4G • Miniaturizing Quantum Technology	STu4H • Innovations in Machine Learning & Microscopy
17:30–18:30	OSA Senior Member Reception, OSA Member Lounge, Concourse Level							
19:00–20:30	OSA Technical Group Poster Session, Grand Ballroom 220C							

Meeting Room 211 A&B	Meeting Room 211 C&D	Meeting Room 212 A&B	Meeting Room 212 C&D	Marriott Salon I & II	Marriott Salon III	Marriott Salon IV	Theater I	Theater II
Registration, Concourse Level								
Joint Plenary Session, Grand Ballroom 220A								
Exhibit Open (10:00–17:00), Coffee Break (10:00–11:30), Exhibit Halls 1-3 Coffee Break Sponsored by  COHERENT.  THORLABS								
Quantum Information Science and Technology Initiatives, Exhibit Hall Theater I								
SC455: Integrated Photonics for Quantum Information Science and Technology (Dirk Englund, MIT, USA)								
SC403: NanoCavity Quantum Electrodynamics and Applications (Jelena Vučković, Stanford University, USA) SC410: Finite Element Modeling Methods for Photonics and Optics (Arti Agrawal, City University, UK) SC424: Optical Terahertz Science and Technology (David G. Cooke, McGill University, Canada) SC438: Photonic Metamaterials (Nader Engheta, University of Pennsylvania, USA)								
Poster Session I & Lunch, Exhibit Halls 1-3								
OIDA VIP Industry Leaders Speed Meeting Event, Booth 2605 Sponsored by  Gofoton								
ATu3I • Ultrafast Laser Processing	STu3J • Kerr Frequency Microcombs	ATu3K • Biophotonic Spectroscopy	STu3L • Mode- Locked Fiber Lasers I	JTu3M • Symposium on Intense-field Nonlinear Optics & High Harmonic Generation in Nanoscale Materials I	STu3N • Lasers on Silicon & Nanolasers	STu3O • Emerging Visible Light Communication	ATu3P • A&T Topical Review on Progress in the Semiconductor Laser Technology I	ATu3Q • A&T Topical Review on Advanced Design, Imaging and Process Technologies for Next Generation Semiconductors I
Coffee Break and Exhibit Only Time, Exhibit Halls 1-3 Sponsored by  COHERENT.  THORLABS								
Meet the OSA Publishing Journal Editors Ice Cream Social, Networking Zone, Booth 2605								
OIDA: Market Trends: Opportunities in Optics and Photonics, Exhibit Hall Theater I								
ATu4I • Emerging Lasers for Device Fabrication	STu4J • Quantum Nanostructure	ATu4K • Biosensing Technology	STu4L • Mode- Locked Fiber Lasers II	JTu4M • Symposium on Intense-field Nonlinear Optics & High Harmonic Generation in Nanoscale Materials II	STu4N • Semiconductor- Based Optical Frequency Combs	STu4O • Infrared Photonics & Applications		
OSA Senior Member Reception, OSA Member Lounge, Concourse Level								
OSA Technical Group Poster Session, Grand Ballroom 220C								

Agenda of Sessions — Wednesday, 8 May

	Executive Ballroom 210A	Executive Ballroom 210B	Executive Ballroom 210C	Executive Ballroom 210D	Executive Ballroom 210E	Executive Ballroom 210F	Executive Ballroom 210G	Executive Ballroom 210H
07:30–18:30	Registration, Concourse Level							
08:00–10:00	Joint Plenary Session, Grand Ballroom 220A							
10:00–17:00	Exhibit Open (10:00–17:00), Coffee Break (10:00–11:30), Exhibit Halls 1-3 Coffee Break Sponsored by  COHERENT.  THORLABS							
10:30–12:00	MIRTHE: New Commercial Trends in Mid-Infrared Sensing – From Nano-Photonics to Stand-Off Detection, Exhibit Hall Theater I							
10:30–12:00	Beyond Awareness: What Actions Can Be Taken to Improve Diversity in STEM, Exhibit Hall Theater II							
11:30–13:00	Poster Session II & Lunch, Exhibit Halls 1-3							
13:00–15:00	JW3A • Sym on Coupling Artificial Atoms to Nano- & Opto-mechanical Systems I	FW3B • Chip-scale Nonlinear Optics	FW3C • Generation & Control of Light Emission at the Nanoscale	FW3D • Topological Photonics III	SW3E • Ultrafast Metrology	SW3F • Terahertz Plasmonics	SW3G • Frequency Combs & Stable Laser Systems	SW3H • Nonlinear Optical Phenomena
15:00–17:00	Coffee Break & Dessert (Exhibit Only Time), Exhibit Halls 1-3 Sponsored by  COHERENT.  THORLABS							
15:30–16:00	Universal Quantum Devices, Product Showcase, Exhibit Hall Theater I							
16:00–16:30	Sandia National Laboratory, Product Showcase, Exhibit Hall Theater I							
16:30–17:00	Class 5, Product Showcase, Exhibit Hall Theater I							
17:00–19:00	JW4A • Sym on Coupling Artificial Atoms to Nano- & Opto-mechanical Systems II	FW4B • Nanoscale Nonlinear Optics	JW4C • Professional Development Session I	FW4D • Chirality, PT Symmetry, & Exceptional Points	SW4E • Ultrafast Pulse Manipulation	SW4F • Terahertz Sources & Communication	SW4G • Optical Frequency Synthesis & Microwave Generation	SW4H • Supercontinuum Generation
19:00–20:30	Conference Reception, Grand Ballroom Sponsored by  THORLABS							

Meeting Room 211 A&B	Meeting Room 211 C&D	Meeting Room 212 A&B	Meeting Room 212 C&D	Marriott Salon I & II	Marriott Salon III	Marriott Salon IV	Theater I	Theater II
Registration, Concourse Level								
Joint Plenary Session, Grand Ballroom 220A								
Exhibit Open (10:00–17:00), Coffee Break (10:00–11:30), Exhibit Halls 1-3 Coffee Break Sponsored by  COHERENT.  THORLABS								NEW Workshop 1: Beyond Awareness 10:30–12:00
MIRTHE: New Commercial Trends in Mid-Infrared Sensing – From Nano-Photonics to Stand-Off Detection, Exhibit Hall Theater I								
Beyond Awareness: What Actions Can Be Taken to Improve Diversity in STEM, Exhibit Hall Theater II								
Poster Session II & Lunch , Exhibit Halls 1-3								
AW3I • Laser-formed Structures & Additive Manufacturing	SW3J • Photonic Sensing & Mid-infrared Photonics	AW3K • Optical Solutions for Autonomous Driving	SW3L • Ultrasound, Photoacoustic, & Photothermal Sensing	FW3M • Ultrafast Spectroscopy in 2D Materials & Heterostructures	SW3N • Cascade Lasers	SW3O • Long Distance Transmission	AW3P • A&T Topical Review on Progress in the Semiconductor Laser Technology II	AW3Q • A&T Topical Review on Advanced Design, Imaging and Process Technologies for Next Generation Semiconductors II
Coffee Break & Dessert (Exhibit Only Time), Exhibit Halls 1-3 Sponsored by  COHERENT.  THORLABS								
Universal Quantum Devices, Product Showcase, Exhibit Hall Theater I								
Sandia National Laboratory, Product Showcase, Exhibit Hall Theater I								
Class 5, Product Showcase, Exhibit Hall Theater I								
AW4I • Medical Devices & Systems	SW4J • Design & Simulation of Micro- & Nano-photonic Devices	AW4K • Lidar	SW4L • Optical Detection of Vapors or Hazardous Environments	FW4M • Advanced Techniques & Applications in Ultrafast Spectroscopy	SW4N • High Power & Narrow Linewidth Lasers	SW4O • Short-Reach Communication Technologies		
Conference Reception, Grand Ballroom Sponsored by  THORLABS								

Agenda of Sessions — Thursday, 9 May

	Executive Ballroom 210A	Executive Ballroom 210B	Executive Ballroom 210C	Executive Ballroom 210D	Executive Ballroom 210E	Executive Ballroom 210F	Executive Ballroom 210G	Executive Ballroom 210H
07:30–18:00	Registration, Concourse Level							
08:00–10:00	FTh1A • Exploiting Quantum Degrees of Freedom	FTh1B • Ultrafast Nonlinear Phenomena	FTh1C • Hot-electron Enabled Plasmonics & Optical Vortices	FTh1D • Entanglement Sources	STh1E • Mid-IR Lasers	STh1F • Chip-Scale Trace-Gas Sensing	STh1G • Frequency Comb Spectroscopy	STh1H • Optical Resonance-Based Devices
10:00–11:30	Exhibit Open (10:00–15:00), Coffee Break (10:00–11:30), Exhibit Halls 1–3 Coffee Break Sponsored by  COHERENT.  THORLABS							
10:15–12:30	Technology Transfer Program, Exhibit Hall Theater I							
10:15–10:45	Technology Transfer Program: Keynote, Exhibit Hall Theater I							
10:45–11:15	Technology Transfer Program: Tutorial Talk, Exhibit Hall Theater I							
11:15–12:30	Technology Transfer Program: Pitch Panel, Exhibit Hall Theater I							
11:30–13:00	Poster Session III, Exhibit Halls 1-3							
12:30–14:00	Lunch, Exhibit Halls 1-3							
14:00–16:00	FTh3A • Gateways to Quantum Information Processing	FTh3B • Tailorable Phenomena in Optical Fibers	FTh3C • Emission & Detection of Thermal Radiation	FTh3D • Quantum Photonics: Generation & Manipulation	STh3E • Ultrafast Parametric Sources I	STh3F • Nonlinear THz Phenomena	STh3G • Precision Timing & Optical Time Transfer	STh3H • Modulation & Switching
16:00–16:30	Coffee Break, Concourse Level Sponsored by  COHERENT.  THORLABS							
16:30–18:30	FTh4A • New Protocols in Quantum Communications	FTh4B • Non-Diffractive & Vortex Beams	FTh4C • Advanced Nanophotonic Platforms for Spectroscopy & Sensing	FTh4D • Beyond Photon Pairs	STh4E • Ultrafast Parametric Sources II	JTh4F • Interaction of Strong THz Fields with Condensed Matter Systems	STh4G • Optomechanics	STh4H • Optical Driven Photonics
18:30–20:00	Emerging Trends in Nonlinear Optics - A Review of CLEO: 2019, Room 230A							
18:30–20:00	Dinner Break (on your own)							
20:00–22:00	Postdeadline Paper Sessions, Location Announced in Update Sheet							

Meeting Room 211 A&B	Meeting Room 211 C&D	Meeting Room 212 A&B	Meeting Room 212 C&D	Marriott Salon I & II	Marriott Salon III	Marriott Salon IV
Registration, Concourse Level						
ATh1I • Radiative Cooling & Photovoltaics	STh1J • Nonlinear Photonics	ATh1K • Industrial Metrology & Remote Sensing	STh1L • Hollow Core Fibers	FTh1M • Ultrafast Processes in Gases & Solids	STh1N • Sensing & Switching	STh1O • Metasurfaces & Nanophotonic Materials
Exhibit Open (10:00–15:00), Coffee Break (10:00–11:30), Exhibit Halls 1–3 Coffee Break Sponsored by  COHERENT. 						
Technology Transfer Program, Exhibit Hall Theater I						
Technology Transfer Program: Keynote, Exhibit Hall Theater I						
Technology Transfer Program: Tutorial Talk, Exhibit Hall Theater I						
Technology Transfer Program: Pitch Panel, Exhibit Hall Theater I						
Poster Session III, Exhibit Halls 1-3						
Lunch, Exhibit Halls 1-3						
ATh3I • A&T Topical Review on Silicon Photonics I	STh3J • Emerging Nonlinear Platforms	ATh3K • Trace Species Sensing	STh3L • Multi-Mode Fiber Phenomena I	FTh3M • Metasurfaces	STh3N • Hybrid Integration with Si Photonics	STh3O • 2D Materials
Coffee Break, Concourse Level Sponsored by  COHERENT. 						
ATh4I • A&T Topical Review on Silicon Photonics II	STh4J • Applications of Lasers & Microcombs	ATh4K • Sources & Techniques for Industrial Monitoring	STh4L • Multi-Mode Fiber Phenomena II	FTh4M • Hyperbolic Photonics Media	STh4N • High-Speed Optical Interconnects	STh4O • Epitaxial Materials & Strain Engineering
Emerging Trends in Nonlinear Optics - A Review of CLEO: 2019, Room 230A						
Dinner Break (on your own)						
Postdeadline Paper Sessions, Location Announced in Update Sheet						

Agenda of Sessions — Friday, 10 May

	Executive Ballroom 210A	Executive Ballroom 210B	Executive Ballroom 210C	Executive Ballroom 210D	Executive Ballroom 210E	Executive Ballroom 210F	Executive Ballroom 210G
07:30–12:00	Registration, <i>Concourse Level</i>						
08:00–10:00	FF1A • Single-Photon Detection	FF1B • Time Varying Metasurfaces	FF1C • Attosecond & High Field Sources	FF1D • Solitons in Microresonators	SF1E • Ultrafast Applications	FF1F • Machine Learning & Quantum Exotica	SF1G • Devices for Communications
10:00–10:30	Coffee Break, <i>Concourse Level</i>						
10:30–12:30	FF2A • Photonic Crystals & Periodic Nano Optics	FF2B • Linear/Non-Linear Metasurfaces	FF2C • Attosecond Pulse Generation & Characterization	FF2D • Frequency Comb & Supercontinuum Generation	SF2E • Ultrafast Phenomena	JF2F • Symposium on Deep-learning Photons: Where Machine Learning & Photonics Intersect II	SF2G • Laser-Based Diagnostics for Material Processing
12:30–14:00	Lunch Break (On your Own)						
14:00–16:00	FF3A • Single-Photon Collection & Characterization	FF3B • Disordered Media	FF3C • Attosecond Dynamic Imaging	FF3D • Nonlinear & Quantum Effects	SF3E • Ultrafast Oscillators	JF3F • Symposium on Deep-learning Photons: Where Machine Learning & Photonics Intersect III	SF3G • Laser-Based 2D/3D Micro- & Nano-fabrication

Executive Ballroom 210H	Meeting Room 211 A&B	Meeting Room 211 C&D	Meeting Room 212 A&B	Meeting Room 212 C&D	Marriott Salon I & II	Marriott Salon III	Marriott Salon IV
Registration, <i>Concourse Level</i>							
SF1H • Phase-matching Techniques	SF1I • Frequency-Comb-Based Sensing	SF1J • Plasmonics, Optomechanics, & Metamaterials	AF1K • Structural Monitoring	SF1L • Fiber Parametric Sources	SF1M • Fiber-Based Information Process	SF1N • AI for Integrated Photonics	SF1O • Perovskites
Coffee Break, <i>Concourse Level</i>							
SF2H • Active & Reconfigurable Devices	SF2I • High Q Cavity, Resonators Application	SF2J • Lithium Niobate & Perovskite Photonic Devices	AF2K • Spectrometers & Wavelength Metrology	SF2L • MID-IR Fiber Sources	JF2M • Professional Development Session II	SF2N • RF Photonics	SF2O • Optoelectronic Materials
Lunch Break (On your Own)							
SF3H • Microresonator Frequency Combs	SF3I • Lasers for Accelerators	SF3J • Metasurface & Plasmonic Structures	AF3K • Imaging, Microscopy, & Specialized Detection	SF3L • Fiber Sensing	FF3M • Quantum Interactions in Nanophotonic Systems	SF3N • Modulators, Phase Arrays & Photodetectors	SF3O • Saturable Absorber Materials & Chalcogenides