

Agenda of Sessions — Sunday, 9 June

09:00-12:00	SC302 • Metamaterials; SC189 • Quantum-enhanced Technologies
09:00-13:00	SC149 • Foundations of Nonlinear Optics(QELS); SC182 • Biomedical Optical Diagnostics and Sensing
14:00-18:00	SC221 • Nanophotonics: Physics and Techniques; SC270 • High Power Fiber Lasers and Amplifiers; SC396 NEW COURSE • Frontiers of Guided Wave Nonlinear Optics; SC403 NEW COURSE • Nano-cavity Quantum Electrodynamics and Applications

Key to Shading

- CLEO: Science & Innovations Sessions
- CLEO: QELS–Fundamental Science Sessions
- CLEO: Applications & Technology Sessions
- Joint Sessions
- Short Courses
- Captured Content Sessions

Agenda of Sessions — Monday, 10 June

	Executive Ballroom 210A	Executive Ballroom 210B	Executive Ballroom 210C	Executive Ballroom 210D	Executive Ballroom 210H	Executive Ballroom 210G	Executive Ballroom 210F
08:00–10:00	QM1A • Active and Nonlinear Metamaterials	QM1B • Near-field Imaging & Spectroscopy	QM1C • Nonclassical & Nonlocal Quantum States	QM1D • Coherent Effects in Excitons and Polaritons	QM1E • Novel Phenomena in Photonic Lattices	CM1F • Microresonators I	CM1G • Advanced Modulation Formats & Digital Signal Processing
10:00–10:30	Coffee Break, Concourse Level						
10:30–12:00	JM2A • Symposium on Fundamentals of Absorption and Emission in Nanostructures and Composites: Novel Optics in Plasmonic and Hyperbolic Systems	QM2B • Novel Quantum Systems	QM2C • Single Photon Sources	QM2D • Dynamics of Excitons and Plasmons	QM2E • Self-accelerating Beams	CM2F • Nanoantennas and Plasmonics	CM2G • Approaching Fundamental Limits in Optical Communication
12:00–13:30	Lunch Break (on your own)						
12:30–16:30	SC361 • Coherent Mid-infrared Sources and Applications; SC378 • Introduction to Ultrafast Optics; SC301 • Quantum Cascade Lasers: Science, Technology, Applications and Markets; SC398 NEW COURSE • Tabletop Coherent X-ray Light Sources for Nano and Atto Science						
13:30–15:30	JM3A • Symposium on Fundamentals of Absorption and Emission in Nanostructures and Composites: Optics of Low-dimensional and Quantum Structures	QM3B • Quantum Optics with Quantum Dots	QM3C • Solid State Quantum Information	QM3D • Ultrafast Dynamics in 1D Systems	QM3E • Non-conventional Beams and Optical Vortices	CM3F • Nanolasers & Photodetectors	CM3G • RF over Fiber
15:30–16:00	Coffee Break, Concourse Level						
16:00–18:00	QM4A • Optics of Metasurfaces	QM4B • Quantum Dots, Nanocrystals, & Impurities	QM4C • Hybrid Plasmonics & Novel Effects	CM4D • All Optical and Quantum Signal Processing	QM4E • Nonlinear Imaging and Spatial and Temporal Effects	CM4F • Photonic Crystals	CM4G • OTDM Technologies (ends at 17:45)
17:30–20:30	SC379 • Silicon Photonic Devices and Applications; SC375 • Mid-infrared Quantum Cascade Lasers: Applications in Health and the Environment; SC377 • Fundamentals of Lasers						
18:30–20:00	Dine and Discover Event, Off site						

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Executive Ballroom 210E	Meeting Room 211D-B	Meeting Room 212A-C	Meeting Room 212D-B	Marriott San Jose Salon I & II	Marriott San Jose Salon III	Marriott San Jose Salon IV	Marriott San Jose Salon V & VI
CM1H • Laser Writing and Patterning	CM1I • Mode-locked Fiber Lasers	CM1J • THz Metamaterials & Plasmonics I	CM1K • Mid-infrared QCL's	CM1L • NLO in Microresonators and Waveguides ▶	CM1M • Optofluidic Particle Manipulation ▶	CM1N • Concepts for Scaling & Extending Laser Performance ▶	JM10 • Symposium on Novel Light Sources for Biomedical Applications: Light Sources for Optical Coherence Tomography ▶
Coffee Break, Concourse Level							
CM2H • Microcavity Optofluidic Sensors	CM2I • Ultrafast Fiber Sources	CM2J • THz Metamaterials & Plasmonics II	CM2K • Mid-infrared Semiconductor Lasers (ends at 12:15)	CM2L • Ultrafast Parametric Sources ▶	CM2M • Fundamentals of Laser-Material Interactions ▶	JM2N • Optical Resonators for Laser Systems and Metrology ▶	JM2O • Symposium on Novel Light Sources for Biomedical Applications: Multimodal Imaging Light Sources and Applications ▶
Lunch Break (on your own)							
SC361 • Coherent Mid-infrared Sources and Applications; SC378 • Introduction to Ultrafast Optics; SC301 • Quantum Cascade Lasers: Science, Technology, Applications and Markets; SC398 NEW COURSE • Tabletop Coherent X-ray Light Sources for Nano and Atto Science							
CM3H • Laser Materials Processing with Shaped Beams	CM3I • Special Fiber Design & Fabrication	CM3J • THz Spectroscopy and Sensing	JM3K • Symposium on Mid-infrared Lasers: Mid-infrared Laser Sources I	CM3L • Solitons and Nonlinear Propagation ▶	AM3M • Symposium on Lab-on-a-Chip Applications: Lab on Chip I ▶	CM3N • Attosecond & X/UV Metrology ▶	JM3O • Symposium on Novel Light Sources for Biomedical Applications: New Advances in Solid State and Semiconductor Lasers ▶
Coffee Break, Concourse Level							
CM4H • Applications of Laser Processing	CM4I • Short Wavelength Fiber Lasers and Effects	CM4J • Nonlinear THz Technology	JM4K • Symposium on Mid-infrared Lasers: Mid-infrared Laser Sources II	QM4L • Quantum Detectors ▶	AM4M • Symposium on Lab-on-a-Chip Applications: Lab on Chip II ▶	CM4N • Long Distance Ranging and Frequency Transfer ▶	CM4O • Micro-sensors ▶
SC379 • Silicon Photonic Devices and Applications; SC375 • Mid-infrared Quantum Cascade Lasers: Applications in Health and the Environment; SC377 • Fundamentals of Lasers							
Dine and Discover Event, Off-site							

Agenda of Sessions — Tuesday, 11 June

	Executive Ballroom 210A	Executive Ballroom 210B	Executive Ballroom 210C	Executive Ballroom 210D	Executive Ballroom 210H	Executive Ballroom 210G	Executive Ballroom 210F	Executive Ballroom 210E
08:15–10:00	Plenary and Awards Session I, <i>Civic Auditorium</i>							
10:00–11:00	Coffee Break (10:00-10:30) and Unopposed Exhibit Only Time, <i>Exhibit Halls 1 and 2</i>							
10:00–13:00	SC362 • Cavity Optomechanics: Fundamentals and Applications; SC376 • Plasmonics; SC402 NEW COURSE • Transformational Optics							
10:00–17:00	Exhibit Open, <i>Exhibit Halls 1 and 2</i>							
10:30–12:30	Market Focus Session I: Industrial Laser Outlook and Opportunities, <i>Exhibit Hall 2</i>							
11:00–13:00	QTu1A • Complex Plasmonic Structures	QTu1B • Mid-IR Plasmonics & Vibrations	QTu1C • Quantum Logic & Interference	QTu1D • Optical Properties of 2D & Layered Materials	QTu1E • Laser Cooling and Novel Phenomena	CTu1F • Graphene & Other Novel Materials	CTu1G • Parametric Optical Signal Processing (ends at 12:45)	CTu1H • Remote Sensing and Imaging
13:00–14:00	Lunch and Unopposed Exhibit Only Time, <i>Exhibit Halls 1 and 2 (concessions available)</i>							
14:00–16:00	Market Focus Session II: Photonics Entrepreneurs, <i>Exhibit Hall 2</i>							
14:00–18:00	SC318 • Coherent and Incoherent Laser Beam Combining Theory and Methods; SC352 • Ultrafast Laser Shaping and Pulse Compression							
14:00–16:00	QTu2A • Hyperbolic Metamaterials I	QTu2B • Ultrafast and Nonlinear Plasmonics	QTu2C • Quantum Key Distribution	CTu2D • Laser Technologies for High-intensity Laser Facilities	CTu2E • NLO in Fibers	CTu2F • Silicon Photonic Modulators	CTu2G • Microwave Photonics I	CTu2H • Measurements in Extreme Environments
16:00–16:30	Coffee Break, <i>Exhibit Halls 1 and 2</i>							
16:30–18:30	QTu3A • Hyperbolic Metamaterials II	JTu3B • Symposium on Advances in Extreme UV Science and Applications: Advances in Extreme UV Science and Applications I	QTu3C • Selected Topics in Quantum Optics	CTu3D • Short-wave IR Lasers and Laser Beam Propagation	CTu3E • Advanced NLO Concepts	CTu3F • Silicon Photonics	CTu3G • Microwave Photonics II	CTu3H • Novel Trace Gas Sensing
18:30–20:30	Conference Reception and JTu4A • POSTER SESSION I: Nanophotonics, Lightwave Communications and Biophotonics, <i>Exhibit Hall 3</i>							

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Meeting Room 211D-B	Meeting Room 212A-C	Meeting Room 212D-B	Marriott San Jose Salon I & II	Marriott San Jose Salon III	Marriott San Jose Salon IV	Marriott San Jose Salon V & VI	Marriott Willow Glen I-III
Plenary and Awards Session I, Civic Auditorium							
Coffee Break (10:00-10:30) and Unopposed Exhibit Only Time, Exhibit Halls 1 and 2							
SC362 • Cavity Optomechanics: Fundamentals and Applications; SC376 • Plasmonics; SC402 NEW COURSE • Transformational Optics							
Exhibit Open, Exhibit Halls 1 and 2							
Market Focus Session I: Industrial Laser Outlook and Opportunities, Exhibit Hall 2							
CTu1I • Optical Frequency Combs	CTu1J • Terahertz Quantum Cascade Lasers	CTu1K • High Power Fiber Lasers	CTu1L • Photonic Integration and Interconnects	ATu1M • Symposium on The Path to Sustainable Energy: Laser Driven Inertial Fusion Energy: Physics of Laser Driven ICF	ATu1N • Symposium on Lab-on-a-Chip Applications: Lab on Chip III	CTu1O • Challenges for High Average Power Lasers I	QTu1P • Symposium on Nanophotonics at the DOE/ SC Nanoscale Science Research Centers: Biophotonics
Lunch and Unopposed Exhibit Only Time, Exhibit Halls 1 and 2 (concessions available)							
Market Focus Session II: Photonics Entrepreneurs, Exhibit Hall 2							
SC318 • Coherent and Incoherent Laser Beam Combining Theory and Methods; SC352 • Ultrafast Laser Shaping and Pulse Compression							
CTu2I • Frequency Combs: Applications		CTu2J • Technologies for Access & Datacom Networking	CTu2K • What's (really) New in Fibers?	ATu2L • Symposium on The Path to Sustainable Energy: Laser Driven Inertial Fusion Energy: Technology of ICF: Drive Lasers and Laser Facilities	CTu2M • Imaging & Microscopy I	ATu2N • Micro and Nanofabrication (ends at 15:30)	QTu2O • Symposium on Nanophotonics at the DOE/ SC Nanoscale Science Research Centers: Optical Processes in Semiconductor Nanostructures
Coffee Break, Exhibit Halls 1 and 2							
CTu3I • Precision Spectroscopy	CTu3J • Novel Pulse Generation and Synthesis	CTu3K • Structured Fibers and Structured Light	CTu3L • Nanophotonics in Optical Communications	ATu3M • Symposium on The Path to Sustainable Energy: Laser Driven Inertial Fusion Energy: Technology of ICF: Drive Lasers, Optical and Nuclear Diagnostics	CTu3N • Imaging & Microscopy II	CTu3O • Micro and Nano-scale Imaging Microscopy	QTu3P • Symposium on Nanophotonics at the DOE/ SC Nanoscale Science Research Centers: Nanoplasmonics
Conference Reception and JTU4A • POSTER SESSION I: Nanophotonics, Lightwave Communications and Biophotonics, Exhibit Hall 3							

Agenda of Sessions — Wednesday, 12 June

	Executive Ballroom 210A	Executive Ballroom 210B	Executive Ballroom 210C	Executive Ballroom 210D	Executive Ballroom 210H	Executive Ballroom 210G	Executive Ballroom 210F	Executive Ballroom 210E
08:30–10:00	Plenary and Awards Session II, <i>Civic Auditorium</i>							
10:00–10:30	Coffee Break, <i>Exhibit Halls 1 & 2</i>							
10:30–12:30	Market Focus Session III: Medical and Aesthetic Lasers—The Future of Light-tissue Interactions, <i>Exhibit Hall 2</i>							
10:30–12:30	QW1A • New Trends in High-harmonic Generation	CW1B • SHG and Parametric Devices	QW1C • Symposium on Quantum Simulators: Quantum Simulators I	JW1D • Symposium on Advances in Extreme UV Science and Applications: Advances in Extreme UV Science and Applications II	QW1E • Laser Filamentation	CW1F • Opto-mechanical Systems I	CW1G • Mode-locked Semiconductor Lasers	CW1H • Ultrashort Pulse Measurement
10:45–15:45	NIF Tour (<i>Pre-Registered attendees only</i>)							
12:30–13:30	Lunch and Unopposed Exhibit Only Time, <i>Exhibit Halls 1 and 2 (concessions available)</i>							
13:30–15:00	JW2A • POSTER SESSION II: Energy, Sensing, and Nonlinear Optics, <i>Exhibit Hall 3</i>							
14:00–16:00	Market Focus Session IV: Optics & Innovation for Energy & the Environment, <i>Exhibit Hall 2</i>							
15:00–16:30	Coffee Break (15:00-15:30) and Unopposed Exhibit Only Time, <i>Exhibit Halls 1 and 2</i>							
16:30–18:30	QW3A • Optics of Random Media	CW3B • Nonlinear Optical Materials	QW3C • Symposium on Quantum Simulators: Quantum Simulators II	QW3D • Ultrafast Dynamics in Strongly Correlated Materials	QW3E • Supercontinuum Generation and Temporal Solitons	CW3F • Opto-mechanical Systems II	CW3G • Nano and Polariton Lasers	CW3H • Ultrafast Nonlinear Optics

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Meeting Room 211D-B	Meeting Room 212A-C	Meeting Room 212D-B	Marriott San Jose Salon I & II	Marriott San Jose Salon III	Marriott San Jose Salon IV	Marriott San Jose Salon V & VI	Marriott Willow Glen I-III
Plenary and Awards Session II, Civic Auditorium							
Coffee Break, Exhibit Halls 1 & 2							
Market Focus Session III: Medical and Aesthetic Lasers—The Future of Light-tissue Interactions, Exhibit Hall 2							
AW1I • Microscopy	JW1J • Symposium on High Power Diode Laser Arrays: Technology and Applications: High Power Diode Laser Arrays I (ends at 11:45)	CW1K • Manipulation & Detection of THz Radiation	CW1L • Quantum Cascade Lasers	CW1M • Infrared Fiber Lasers	QW1N • Novel Nanooptical & Plasmonic Fabrication	CW1O • Optical Materials and Devices I	QW1P • Symposium on Nanophotonics at the DOE/SC Nanoscale Science Research Centers: Active and Passive Optical Metamaterials
NIF Tour (Pre-Registered attendees only)							
Lunch and Unopposed Exhibit Only Time, Exhibit Halls 1 and 2 (concessions available)							
JW2A • POSTER SESSION II: Energy, Sensing, and Nonlinear Optics, Exhibit Hall 3							
Market Focus Session IV: Optics & Innovation for Energy & the Environment, Exhibit Hall 2							
Coffee Break (15:00-15:30) and Unopposed Exhibit Only Time, Exhibit Halls 1 and 2							
AW3I • OCT: Technology Development and Applications	JW3J • Symposium on High Power Diode Laser Arrays: Technology and Applications: High Power Diode Laser Arrays II	CW3K • Advanced THz Emission Mechanisms	CW3L • Atmospheric Sensing	CW3M • Single Frequency Fiber Lasers (ends at 18:15)	QW3N • Waveguide & Plasmonics	CW3O • Optical Materials and Devices II	

Agenda of Sessions — Thursday, 13 June

	Executive Ballroom 210A	Executive Ballroom 210B	Executive Ballroom 210C	Executive Ballroom 210D	Executive Ballroom 210H	Executive Ballroom 210G	Executive Ballroom 210F
08:00–10:00	QTh1A • Novel Phenomena in Complex Media	QTh1B • Active Plasmonics & Graphene	CTH1C • Microresonators III	QTh1D • Strong-field Interactions	QTh1E • Quantum Photonics	CTH1F • Four-wave Mixing & Frequency Comb Generation	CTH1G • Microdisks, Microrings & DFB's
09:30–12:30	Technology Transfer Program: <i>Exhibit Hall 2</i>						
10:00–11:30	Coffee Break (10:00-10:30) and Unopposed Exhibit Only Time, <i>Exhibit Hall 1 and 2</i>						
10:00–15:00	Exhibits Open, <i>Exhibit Halls 1 and 2</i>						
11:30–13:00	JTh2A • POSTER SESSION III: Light-Matter Interactions, ultrafast & Quantum Optics, <i>Exhibit Hall 3</i>						
13:00–14:00	Pizza Lunch and Unopposed Exhibit Only Time, <i>Exhibit Hall 1 and 2 (concessions available)</i>						
14:00–16:00	QTh3A • Particle Acceleration by Lasers	QTh3B • Thermal & Optomechanical Metamaterials	QTh3C • Photon Pair Sources and Entanglement	QTh3D • Graphene Optics and Photonics	QTh3E • Plasmonic Nanostructures	CTH3F • Nonlinear Optics in Nanophotonic Devices	CTH3G • Photonic Crystal Lasers (ends at 15:45)
16:00–16:30	Coffee Break, <i>Concourse Level</i>						
16:30–18:30	QTh4A • Engineering Light-Matter Interactions	QTh4B • Nanoemitters & Lasers and Spasers	QTh4C • Quantum Optics with Atoms and Molecules	QTh4D • High Field Effects and X-rays Probes	QTh4E • Integrated Nonlinear Photonics	CTH4F • Waveguides and Passive Components	CTH4G • Defect & Quantum Dot Emitters
18:30–20:00	Dinner Break (<i>on your own</i>)						
20:00–22:00	Postdeadline Paper Sessions, <i>Marriott San Jose Salons I & II, III, IV, V & VI</i>						

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Executive Ballroom 210E	Meeting Room 211D-B	Meeting Room 212A-C	Meeting Room 212D-B	Marriott San Jose Salon I & II	Marriott San Jose Salon III	Marriott San Jose Salon IV	Marriott San Jose Salon V & VI
CTh1H • Ultrafast Laser Sources I	ATh1I • Environmental Sensing	CTh1J • Fabrications and Applications I	CTh1K • THz Waveguides and Resonators	QTh1L • Optical Memories and Atomic Ensembles	CTh1M • Next Generation Photovoltaics	ATh1N • Clinical Applications	ATh1O • Symposium on The Path to Sustainable Energy: Laser-Driven Inertial Fusion Energy: Alternative Laser ICF Concepts
Technology Transfer Program: <i>Exhibit Hall 2</i>							
Coffee Break (10:00-10:30) and Unopposed Exhibit Only Time, <i>Exhibit Hall 1 and 2</i>							
Exhibits Open, <i>Exhibit Halls 1 and 2</i>							
JTh2A • POSTER SESSION III: Light-Matter Interactions, ultrafast & Quantum Optics, <i>Exhibit Hall 3</i>							
Pizza Lunch and Unopposed Exhibit Only Time, <i>Exhibit Hall 1 and 2 (concessions available)</i>							
CTh3H • Ultrafast Laser Sources II	CTh3I • Biosensors	CTh3J • Fabrications and Applications II	ATh3K • Ultrafast Laser Design and Applications (ends at 15:30)	CTh3L • Photodetectors I	CTh3M • Fiber Parametric Amplifiers	ATh3N • LEDs for Energy Efficiency	ATh3O • Symposium on The Path to Sustainable Energy: Laser-Driven Inertial Fusion Energy: ICF Target Design and Fabrication
Coffee Break, <i>Concourse Level</i>							
CTh4H • Fiber Devices & Sensors	CTh4I • Thermal Challenges for High Average Power Lasers II	CTh4J • Photodetectors II	ATh4K • Advanced Sensing & Metrology	CTh4L • Novel Components and Applications	CTh4M • Attoseconds and CEP Control	ATh4N • Energy from the Sun	ATh4O • Symposium on The Path to Sustainable Energy: Laser Driven Inertial Fusion Energy: Future Perspective of ICF as Sustainable Energy Source
Dinner Break (<i>on your own</i>)							
Postdeadline Paper Sessions, <i>Marriott San Jose Salons I & II, III, IV, V & VI</i>							

Agenda of Sessions — Friday, 14 June

	Executive Ballroom 210A	Executive Ballroom 210C	Executive Ballroom 210D	Executive Ballroom 210H	Executive Ballroom 210G	Executive Ballroom 210F
08:00–10:00	QF1A • Quantum Nanooptics & Detectors	QF1B • Quantum Sensing & Imaging	QF1C • XUV & X-ray Sources Based on High-harmonic Generation	QF1D • Integrated Devices and EIT	CF1E • Applications of Fiber Nonlinearities	CF1F • High Power and Nitride Semiconductor Lasers (ends at 09:30)
10:00–10:30	Coffee Break, <i>Concourse Level</i>					
10:30–12:30	QF2A • Nano-antennas, Coupling & Absorbers	QF2B • Quantum Metrology & Tomography	QF2C • Attosecond Spectroscopy of Atoms and Molecules	QF2D • Nonlinear Frequency Conversion	CF2E • Photon Manipulation for Improved Efficiency	CF2F • Surface-emitting Semiconductor Lasers (ends at 12:15)

Key to Shading



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CLEO: QELS–Fundamental Science Sessions



CLEO: Applications & Technology Sessions



Joint Sessions



Short Courses



Captured Content Sessions

Executive Ballroom 210E	Meeting Room 212A-C	Meeting Room 212D-B	Marriott San Jose Salon I & II	Marriott San Jose Salon III	Marriott San Jose Salon IV	Marriott San Jose Salon V & VI
CF1G • Frequency Combs and Arbitrary Waveform Generation	AF1H • Lasers for Imaging & Data Transmission	CF1I • Fabrication and Characterization of Optical Gain Materials	AF1J • Symposium on Applied Optical Measurements in Fabrication Processes and Products I	JF1K • Symposium on Nonlinear THz Science and Technology I	AF1L • Biosensing & Control	CF1M • Novel Light Emitters
Coffee Break, Concourse Level						
CF2G • Ultrafast Measurement & Spectroscopy	AF2H • Lasers for Spectroscopy and Detection	CF2I • Microresonators, Waveguides and their Characterization	AF2J • Symposium on Applied Optical Measurements in Fabrication Processes and Products II	JF2K • Symposium on Nonlinear THz Science and Technology II	JF2L • Symposium on Optogenetics and Optical Control of Biological Processes	CF2M • Non-reciprocity in Nanophotonics/Quantum Photonic Devices