Agenda of Sessions — Sunday, May 31

9:00 a.m	SC136: Understanding Lasers and Critical Optical Components, Shaoul Ezekiel;
6:00 p.m.	SC200: Laser Remote Sensing, Timothy Carrig and Phillip Gatt
10:30 a.m	SC336: Green Photonics, S. J. Ben Yoo;
1:30 p.m.	SC338: Fiber-Based Parametric Devices, Colin J. McKinstrie
2:00 p.m 6:00 p.m.	SC154: Quantum Well Devices for Optics and Optoelectronics, David A. B. Miller; SC198: Packaging of Optoelectronic Components, Andreas Rose; SC271: Quantum Information—Technologies and Applications, Prem Kumar and Paul Toliver
3:00 p.m 6:00 p.m.	SC164: THz Technology, Alan Cheville; SC189: Quantum-Enhanced Technologies, Ian Walmsley; SC334: The Art of Modeling Optical Systems, Curtis Menyuk; SC339: A Guide to Building an Optical Clock, Scott Diddams and Chris Oats



$Agenda\ of\ Sessions - {\scriptstyle \mathsf{Monday}}, \mathsf{June}\ \mathtt{1}$

	Rooms 318-320	Rooms 321-323	Rooms 324-326	Room 314	Room 315	Room 316	Room 317
8:00 a.m 9:45 a.m.	CMA • fs Fiber Oscillators I	IMA • Strongly Coupled Atomic Systems	CMB • 10 Years of Frequency Combs CLEO Symposium I	IMB • Infrared and Nonlinear Plasmonics	IMC • Nonlinear Nanophotonic and Periodic Media	CMC • Transmission and Optical Processing	CMD • Light Emission in Novel Nano-Structures and Materials
8:00 a.m.– 12:00 p.m.	SC166: Design, Fa SC167: Fundamen	asematching for Wave abrication and Applica ntals of Semiconduct al Optical Diagnostics	ation of Photonic Cry or Lasers: Edge-Emit	stals, Dennis Prathetters to Micro Cavity	er;		w;
9:00 a.m.– 12:00 p.m.		ber Communication S erials, Vladimir M. Sha		r; SC165: Laser Diod	le-Pumped Solid-Sta	te Lasers, Larry Ma	rshall;
9:45 a.m 10:15 a.m.			Cof	fee Break, 300 Level 1	Foyer		
10:15 a.m.– 12:00 p.m.	CML • fs Fiber Oscillators II	CMM • Polarization Effects in Nitride LEDs	CMN • 10 Years of Frequency Combs CLEO Symposium II	IMD • Plasmonic Antennas and Devices	IME • Solitons and Nonlinear Wave Propagation	CMO • Free Space Optical and Quantum Communications	CMP • Resonant and Photonic Crystal Structures Emission
12:00 p.m 1:30 p.m.			Lu	ınch Break (on your or	wn)		
1:00 p.m.– 5:00 p.m.	SC191: Tissue Op SC194: Photonic SC318: Laser Bea	ons of Nonlinear Optic tics: Fundamentals a Crystal Fibers and De am Combining: Theory al Property in Acaden	nd Applications to Bi vices, Benjamin J. E and Methods, Jame	iomedical Optical an ggleton; SC316: Org es R. Leger;	d Laser Diagnostics, anic Photonic Device	Valery V. Tuchin and	
1:30 p.m 3:15 p.m.	CMW • Photonic Crystal Fiber	CMX • Terahertz Photonics	CMY • 10 Years of Frequency Combs CLEO Symposium III	IMG • Nano- Optics and Opto- Mechanics	IMH • Nonlinear Effects in Semiconductors	CMZ • Modulation Formats and Nonlinear Processing	CMAA • Silicon Photonic Communication Technologies
3:15 p.m 3:45 p.m.			Cof	fee Break, 300 Level 1	Foyer		
3:45 p.m 5:30 p.m.	CMHH • Novel Applications of Microstructured Films	IMJ • Quantum Information III	CMII • High Repetition Rate Combs	IMK • Nanoplasmonic Waveguides and Devices	IML • Frequency Conversion	CMJJ • Optical Packet Switchings and Novel Fiber	CMKK • Optomechanical Devices
6:00 p.m 7:30 p.m.		(CLEO Plenary Session	n, Baltimore Convention	n Center, Ballrooms III-1	V	



Room 336	Room 337	Room 338	Room 339	Room 340	Room 341	Rooms 328-329
CME • Imaging Applications	CMF • Biomedical Tomography	CMG • Compact Sensors	CMH • Nanostructured and Organic LEDs	CMI • THz Instrumentation and Techniques	CMJ • Nonlinear Optical Materials	CMK • Quantum Dots and Mode- Locked Lasers
SC166: Design, Fabi SC167: Fundamenta	rication and Application Is of Semiconductor L	gth Conversion and All n of Photonic Crystals, asers: Edge-Emitters t d Sensing, Thomas Hu	Dennis Prather; O Micro Cavity Devices			
	r Communication Systems, Vladimir M. Shalae	ems, Alan Willner; SC1	65: Laser Diode-Pump	ed Solid-State Lasers	, Larry Marshall;	
		Co	offee Break, 300 Level Fo	oyer		
CMQ • Ultrafast Optics Applications	CMR • Optical Coherence Tomography	CMS • Pollutant and Emission Sensing	IMF • Quantum Information I	CMT • THz Spectroscopy and Dynamics	CMU • Nonlinear Optics in Gases	CMV • Quantum Dot Lasers II
		L	unch Break (on your ow	n)		
SC191: Tissue Optic SC194: Photonic Cry SC318: Laser Beam	s: Fundamentals and A stal Fibers and Device Combining: Theory an		lical Optical and Laser on; SC316: Organic Pho eger;	Diagnostics, Valery V. otonic Devices, Marc	. Tuchin and Kirill Larin Baldo and Vladimir Bul	
CMBB • Laser Sources	CMCC • Endoscopic Imaging Applications	CMDD • Spectroscopic Gas Sensing I	CMEE • Ultraviolet and Blue Light Emitters	IMI • Quantum Information II	CMFF • Four-Wave Mixing	CMGG • VCSELs I
		Co	offee Break, 300 Level Fo	oyer		
CMLL • Pulse Shaping	CMMM • Cellular and Molecular Techniques	CMNN • Fiber Based Sensing	CMOO • Novel Device Concepts for Solid-State Lighting	CMPP • Novel THz Sources	CMQQ • Optical Device Fabrication	CMRR • VCSELs I
			0 . 0			

$Agenda\ of\ Sessions - \hbox{\tt Tuesday,\ June\ 2}$

	T _	_		_	_	_	_			
	Rooms 318-320	Rooms 321-323	Rooms 324-326	Room 314	Room 315	Room 316	Room 317			
8:00 a.m 9:45 a.m.	ITuA • Metamaterials I	CTuA • Combustion Sensing	JTuA • Daniel Chemla Joint CLEO/IQEC Symposium I	CTuB • Limitations and Noise in Optical Metrology	CTuC • Optical Interconnects	CTuD • Optofluidics for Biosensing and Analysis CLEO Symposium I: Novel Optical Devices and Systems	CTUE • Microresonators			
8:30 a.m.– 12:30 p.m.			tion and Shaping Tec mplifiers, W. Andrew	chniques, James R. I Clarkson	Leger; SC163: Practi	ical OPOs, Majid Ebr	ahim-Zadeh;			
9:30 a.m.– 12:30 p.m.	SC221: Nano-Photonics: Physics and Techniques, Axel Scherer; SC300: Silicon Photonics, Bahram Jalali; SC301: Quantum Cascade Lasers: From Band Structure Engineering to Commercialization, Federico Capasso; SC337: Single Photon Detection, Mark A. Itzler									
10:00 a.m 10:30 a.m.			Co	offee Break, Exhibit F	Hall					
10:00 a.m 5:00 p.m.				Exhibit Hall Open						
10:30 a.m.– 12:15 p.m.	ITuD • Metamaterials II	JTuB • Slow/ Fast Light and its Applications Joint CLEO/IQEC Symposium I: Stimulated Brillouin and Raman Scattering	JTuC • Daniel Chemla Joint CLEO/IQEC Symposium II	CTuK • Control of Frequency Combs	CTuL • Communication Components and Techniques	CTUM • Optofluidics for Biosensing and Analysis CLEO Symposium II: Photonic Crystals and Bioanalysis	CTUN • Silicon Nanocrystals Light Emission			
10:30 a.m.– 12:30 p.m.	PhA	AST Market Focus Se	ession: New Laser S	ources and Processe	es in Photovoltaic Ma	anufacturing, Exhibit	Hall			
12:15 p.m.– 1:00 p.m.			Lunch Break	(concessions available c	on exhibit floor)					
12:30 p.m 1:30 p.m.		PhAS	ST Power Lunch on E	xhibit Hall Floor (Lur	nch begins at 12:30	p.m.)				
1:00 p.m 2:30 p.m.			JTuD • Joint CL	EO/IQEC Poster Sess	sion I, Exhibit Hall					
1:30 p.m.– 5:30 p.m.	in Polarized Light, Microscopy, Metro J. Rocca; SC317: L	Robert Fisher; SC15 logy and Patterning aser Tweezers: Mov	5: Ultrashort Laser Using Compact and ing Tiny Things with	nplifiers, John Zyski Pulse Measurement, Large Scale Soft X-F Light, Kristian Helmo e and Thomas Huse	Rick Trebino; SC24 Ray Sources, Margar erson; SC319: Quant	7: Ultrafast Optics: N et Murnane, David A	lanoscale ttwood and Jorge			
2:30 p.m.– 4:15 p.m.	ITuG • Novel Optical Phenomena	JTUE • Slow/ Fast Light and its Applications Joint CLEO/IQEC Symposium II	ITuH • Excitons	CTUS • Clock Dissemination and Distance/ Displacement Metrology	CTuT • Microwave Photonics	CTuU • Optofluidics for Biosensing and Analysis CLEO Symposium III: Optical Manipulation	CTuV • Photodetectors and Modulators			
2:30 p.m 4:30 p.m.		PhAST Mar	ket Focus Session:	Renewable Energy a	nd Energy Efficiency	, Exhibit Hall				
4:15 p.m		- · · · · ·	Co	offee Break, Exhibit H	*		v 0 0 0 0			
4:45 p.m. 4:45 p.m.– 6:30 p.m.	ITuK • Ultrafast Plasmonics	JTuF • Slow/ Fast Light and its Applications Joint CLEO/IQEC Symposium III	ITuL • Spin and Quantum Dots	CTuAA • Novel 2-D and 3-D Microscopy	CTuBB • Modulators and Switches	CTuCC • Optofluidics and Biosensors	CTuDD • Photonic Crystal Waveguides			
6:30 p.m 8:00 p.m.			Confere	nce Reception, Ballro	oms III/IV					

Key to Shading

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CLEO Sessions	IQEC Sessions	Joint Sessions	PhAST Sessions	Short Courses

Room 336	Room 337	Room 338	Room 339	Room 340	Room 341	Rooms 328-329
CTuF • LED Materials and III-Nitride Semiconductors	ITuB • Quantum Information IV	ITuC • Spatial and Temporal Nonlinear Effects	CTuG • THz Parametric Generation	CTuH • Photonic Crystal and DBR Lasers	CTul • Micro- Structured Nonlinear Optics	CTuJ • PON and Light Sources
	Analysis, Propagation plifiers, W. Andrew Cla		es, James R. Leger; S	C163: Practical OPOs	, Majid Ebrahim-Zadeh	; SC270: High Power
		niques, Axel Scherer; S n, Federico Capasso; S			301: Quantum Cascad zler	e Lasers: From Band
		C	offee Break, Exhibit Ho	ıll		
			Exhibit Hall Open			
CTuO • Waveguides and Emitters	ITUE • Fiber Generation of Single and Entangled Photons	ITuF • Novel Phenomena	CTuP • Nd Lasers	CTuQ • Mode- Locking and Dynamics of Semiconductor Lasers	CTuR • SHG	PTuA • UV LEDs for Health and Safety (ends at 12:30 p.m.)
	PhAST Market Focus	Session: New Laser S	ources and Processe	s in Photovoltaic Man	ufacturing, Exhibit Hall	
		Lunch Brea	k (concessions available or	ı exhibit floor)		
		hAST Power Lunch on	Exhibit Hall Floor (Lun	ch begins at 12:30 p.	m.) · · · · ·	
		JTuD • Joint CL	EO/IQEC Poster Sessi	on I, Exhibit Hall		
Robert Fisher; SC155 Using Compact and L	5: Ultrashort Laser Pul arge Scale Soft X-Ray	se Measurement, Rick Sources, Margaret M	c Trebino; SC247: Ultra urnane, David Attwood	afast Optics: Nanosca I and Jorge J. Rocca;	ntermediate Topics in le Microscopy, Metrolo SC317: Laser Tweezers ptical Microscopy, Step	gy and Patterning s: Moving Tiny Things
CTuW • Random Lasers and Light Emission	ITul • Quantum- Optical Communication Technologies	ITuJ • Quantum Dots, Quantum Wells, and Cavities	CTuX • Application Driven Lasers	CTuY • Novel Materials	CTuZ • Nonlinear Optics for Imaging and Metrology	PTUB • Applications of Solid-State Lighting (starts at 2:15 p.m.)
	PhAST N	Market Focus Session:	Renewable Energy an	d Energy Efficiency, E	xhibit Hall	
		C	offee Break, Exhibit Ho	ıll		
CTuEE • Advanced Film Technology	ITuM • Single Photon Quantum Technologies	ITuN • Nanophotonic Cavities and Devices	CTuFF • Laser Materials and Spectroscopy	CTuGG • Mid-Infrared Semiconductor Lasers	CTuHH • Nonlinear Optical Physics	
		Confere	ence Reception, Ballroo	ms III/IV	ı	

$Agenda\ of\ Sessions - {\tt Wednesday}, {\tt June\ 3}$

	Rooms 318-320	Rooms 321-323	Rooms 324-326	Room 314	Room 315	Room 316	Room 317
8:00 a.m.– 10:30 a.m.			CLEO/IQEC Joi	int Plenary Session,	Ballrooms III-IV		
10:00 p.m 5:00 p.m.				Exhibit Hall Open			
10:30 a.m.– 12:00 p.m.			Coffee Break	and Exhibit-Only Tin	ne, Exhibit Hall		
11:00 a.m.– 12:00 p.m.			Lunch Brea	k (concessions available	on show floor)		
12:00 p.m 1:30 p.m.			JWA • Joint CLE	O/IQEC Poster Sessi	ion II, Exhibit Hall		
1:15 p.m 3:15 p.m.		Ph	AST Market Focus Se	ession: Biophotonics	-Diagnostics, Exhibit	Hall	
1:30 p.m 3:15 p.m.		JWB • Novel Light Sources I	JWC • Nanophotonics and Metamaterial Symposium I: Bulk Metamaterials	IWA • Coherence and Control	IWB • Fundamental Nonlinear Processes	CWA • Eye-Safe Wavelength Lasers I	CWB • Topics in Optical Metrology I
3:15 p.m 4:45 p.m.			Coffee Break	and Exhibit-Only Tin	ne, Exhibit Hall		
3:45 p.m 5:00 p.m.			PhAST Market Focus	Session: Biophotonic	cs-Therapy, Exhibit H	all	
4:45 p.m.– 6:30 p.m.		JWD • Novel Light Sources II	JWE • Nanophotonics and Metamaterials Symposium II: Advances in Plasmonics	IWD • Photon- Lattice Interactions	IWE • Optomechanical Effects	CWH • Eye-Safe Wavelength Lasers II	CWI • Topics in Optical Metrology II



Room 336	Room 337	Room 338	Room 339	Room 340	Room 341	Rooms 328-329
		CLEO/IQEC Jo	oint Plenary Session, I	Ballrooms III-IV		
			Exhibit Hall Open			
		Coffee Breal	k and Exhibit-Only Tim	e, Exhibit Hall		
		Lunch Brea	ak (concessions available o	on show floor)		
		JWA • Joint CL	EO/IQEC Poster Session	on II, Exhibit Hall		
• • • • •		PhAST Market Focus S	ession: Biophotonics-	Diagnostics, Exhibit Ha	II° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° °	
IWC • Entangled Photons I	CWC • OPO I	CWD • Large Mode Area and Bend Insensitive Fiber	CWE • Nonlinear Microscopy	CWF • High-Power Semiconductor Lasers	CWG • THz Plasmonics	PWA • Defense Applications of Lasers and Electro-Optics Technology (starts at 1:15 p.m.)
		Coffee Breat	k and Exhibit-Only Tim	e, Exhibit Hall		
		PhAST Market Focus	Session: Biophotonic	s-Therapy, Exhibit Hall		
IWF • Entangled Photons II	CWJ • OPO II	CWK • High-Power Ultrafast Fiber Sources	CWL • Parametric Amplification	IWG • Applications of Cold Atoms	CWM • THz Imaging	PWB • Lasers and Optics for Astronomy and Spacebased Sensing (ends at 6:45 p.m.)

Agenda of Sessions — Thursday, June 4

	Rooms 318-320	Rooms 321-323	Rooms 324-326	Room 314	Room 315	Room 316	Room 317
8:00 a.m 9:45 a.m.	IThA • Photonic Crystals	CThA • High- Power Solid-State Lasers CLEO Symposium I: Multikilowatt Solid-State Lasers	JThA • Nanophotonics and Metamaterials Symposium III: Active Plasmonics	CThB • Novel Devices and Techniques	IThB • Quantum Dot Science I	CThC • Quantum Cascade Lasers I	CThD • Quasi Phase Matching
10:00 a.m 10:30 a.m.			Co	offee Break, Exhibit F	Hall		
10:00 a.m 4:00 p.m.				Exhibit Hall Open			
10:30 a.m 12:30 p.m.	• • • • •	PhAST N	larket Focus Session	n: Terahertz–Imaging	and Surveillance, E.	xhibit Hall	
10:30 a.m 12:15 p.m.	IThD • Lasing and Propagation in Disordered Media	CThJ • High- Power Solid-State Lasers CLEO Symposium II: High Average and High Peak Power Lasers	JThC • Nanophotonics and Metamaterials Symposium IV: Modern Trends in Photonics	CThK • Nanostructured Nonlinear Optics	IThE • Quantum Dot Science II	CThL • Quantum Cascade Lasers II	CThM • Quantum Materials Technology
12:15 p.m 1:00 p.m.			Lunch Break	(concessions available o	on exhibit floor)		
1:00 p.m			JThE • Joint CLE	O/IQEC Poster Sessi	on III, Exhibit Hall		
2:30 p.m. 2:00 p.m 4:00 p.m.		PhAST Market Foc	us Session: Environ	mental Monitoring S	olutions in the Mid-I	nfrared, Exhibit Hall	
2:30 p.m 4:15 p.m.	IThG • Plasmonic Metamaterials	CThR • High- Power Solid- State Lasers CLEO Symposium III: Novel High-Power SS Lasers	JThF • Nanophotonics and Metamaterials Symposium V: Measurement and Fabrication Techniques	CThS • QPM Devices I	IThH • Interaction of Few Atoms/ Molecules with Light	CThT • Quantum Cascade Lasers III	CThU • Silicon Photonic Waveguides
4:15 p.m 4:45 p.m.			Cof	fee Break, 300 Level 1	Foyer		
4:45 p.m 6:30 p.m.	IThK • Quantum Imaging and Spatial Entanglement	CThY • Novel Lasers and Beam Combining	IThL • Plasmonic Metamaterials	CThZ • QPM Devices II	IThM • Coherent Interactions of Matter in Light	CThAA • Quantum and Interband Cascade Lasers	CThBB • Nonlinear Nanophotonics and Data Conversion
6:30 p.m 8:00 p.m.				Dinner Break (on own	ı)		
8:00 p.m 10:00 p.m.		(CLEO/QELS Postdead	line Paper Sessions	, Rooms 314, 315 and 31	16	



Room 336	Room 337	Room 338	Room 339	Room 340	Room 341	Rooms 328-329
CThE • Fiber Sensors and Gratings	IThC • THz Interactions with Condensed Matter	CThF • Ultrafast Photonics I	JThB • Attosecond Science	CThG • Emerging Applications in Laser Processing	CThH • THz QCL	CThI • Spectroscopic Gas Sensing II
		C	Coffee Break, Exhibit H	l all		
			Exhibit Hall Open			
	PhAS	T Market Focus Session	on: Terahertz–Imaging	and Surveillance, Exhi	bit Hall	
CThN • Novel Fiber Sources	IThF • Multidimensional Spectroscopy	CThO • Ultrafast Photonics II	JThD • Molecules in Strong Fields	CThP • Femtosecond Laser Writing and Sensing	CThQ • THz Waveguides	PThA • Visible Displays and Projectors (ends at 12:30 p.m.)
		Lunch Brea	k (concessions available or	ı exhibit floor)	<u>I</u>	
		JThE • Joint CL	EO/IQEC Poster Session	on III, Exhibit Hall		
	PhAST Market I	Focus Session: Enviror	nmental Monitoring So	lutions in the Mid-Infr	ared, Exhibit Hall	
CThV • Nonlinear Optical Materials	IThI • Dynamic Phenomena	CThW • Pulse Measurement I	JThG • High Harmonic Generation I	IThJ • Generation and Characterization of Single and Entangled Photons	CThX • THz Metamaterial Modulators	PThB • Optical Imaging (starts at 2:15 p.m.)
		Co	offee Break, 300 Level Fo	oyer		
CThCC • Semiconductor Waveguides and Nanostructures	IThN • Photonic Structures	CThDD • Pulse Measurement II	JThH • High Harmonic Generation II	CThEE • Laser Ablation Mechanisms and Applications	CThFF • THz Metamaterials and Filters	CThGG • Novel 1 Micron Fiber Sources
			Dinner Break (on own)			

Agenda of Sessions — Friday, June 5

	Rooms 318-320	Rooms 321-323	Rooms 324-326	Room 314	Room 315	Room 316	Room 317			
8:00 a.m 9:45 a.m.	CFA • Biomedical Microscopy I	IFA • Quantum Nano-Optics	CFB • Advanced Fiber Laser Systems I	CFC • Nonlinear Optics	IFB • Advances in Trapped-Ion Science	CFD • High Peak Intensity Lasers	CFE • Photonic Crystal Cavities			
9:45 a.m 10:15 a.m.	Coffee Break, Pratt Street Lobby, 300 Level									
10:15 a.m 12:00 p.m.	CFL • Biomedical Microscopy II	IFC • Surface Plasmon Polaritons	CFM • Advanced Fiber Laser Systems II	CFN • Short Wavelength	IFD • Cooling of Opto-Mechanical Systems (ends at 12:15 p.m.)	CFO • Short Pulse Lasers	CFP • Photonic Crystal Technology and Applications			

Thank you for attending CLEO/IQEC.
Look for your post-conference survey via email and let us know your thoughts on the program.

Key to Shading

CLEO Sessions

IQEC Sessions



• PhAST Sessions



Room 336	Room 337	Room 338	Room 339	Room 340	Room 341	Rooms 328-329
CFF • Silicon Photonics	CFG • Applications of Nonlinear Optics	JFA • Ultrafast and Short Wavelength Technology	CFH • Novel Glass Fibers	CFI • Fabrication of Optical Components	CFJ • Remote Sensing I	CFK • Detectors and Imaging
		Coffee I	Break, Pratt Street Lobby,	300 Level		
CFQ • Organic Optoelectronics (ends at 11:45 a.m.)	CFR • Semiconductor Nonlinear Optics	JFB • Laser Particle Acceleration	CFS • Supercontinuum Generation and Fiber Nonlinearity	CFT • Ultrafast Laser Waveguide Writing	CFU • Remote Sensing II	CFV • Waveguides and Filter



