

CLEO/QELS to convene in Baltimore



Some 5000 researchers, educators, business leaders, and students from around the world will travel to Baltimore, Maryland, next month to attend the 27th Conference on Lasers and Electro-Optics (CLEO) and the 15th Quantum Electronics and Laser Science (QELS) Conference, slated for Sunday, 6 May, through Friday, 11 May, at the Baltimore Convention Center.

The gathering will also include the Photonic Applications, Systems, and Technologies (PhAST) Conference from Monday, 7 May, through Thursday, 10 May.

From fundamental science to application, the joint conference offers members of the laser science, quantum electronics, and optoelectronics communities an opportunity to extensively review the latest innovations in lasers, electro-optics, and nanophotonics. More than 1200 presentations with 80 invited speakers are on the schedule, along with 350 exhibitors.

The technical programs will be held in parallel sessions scheduled for Monday through Friday. Also on the agenda are joint and special symposia, short courses, tutorials, poster sessions, and hands-on workshops.

Talks, symposia, and tutorials

Talks during the week on the CLEO side will cover micro- and nanophotonics; light-emitting diodes and solid-state lighting; laser processing and optical instrumentation systems; solid-state and semiconductor lasers; nonlinear optics; terahertz technologies and applications; optical materials, fabrication, and characterization; ultrafast optics, optoelectronics, and applications; optical components; medical and biological applications; fiber and guided-wave lasers, amplifiers, and devices; lightwave communications and networks; active optical sensing; and optical metrology.

On the QELS side, topics will include quantum optics and quantum atom optics; quantum information; fundamentals of metamaterials and of periodic and random media; ultrafast dynamics; nonlinear optics and novel phenomena; and nano-optics and plasmonics.

PhAST talks will cover the commercialization of applied research, high-power laser systems, lasers in manufac-

turing, and photonics in homeland and national security. Joint sessions include CLEO/QELS symposia on nanophotonics and self-phase modulation, a CLEO/QELS subcommittee on high-field physics and high-intensity lasers, and CLEO/PhAST symposia on biophotonics instrumentation and ultrafast laser processing. Other presentations include a panel on solid-state laser power scaling, a QELS talk on degenerate Fermi gases, and a CLEO symposium on ultrafast laser processing.

Tutorials, intended as introductions to important areas in the fields, will be held throughout the week, and 35 short courses will also be offered. Poster sessions will be held Tuesday through Thursday in the convention center's exhibit hall.

The joint plenary and awards ceremonies will take place at 7:00 to 9:30pm Monday at the convention center.

CLEO speakers include Alan Heeger, Presidential Chair and professor of physics and of materials at the University of California, Santa Barbara, who will discuss plastic electronics and optoelectronics; and William D. Phillips, head of NIST's laser cooling and trapping group in the atomic physics division. His talk will cover spinning atoms with light.

QELS speaker John Pendry, chair in theoretical solid-state physics at Imperial College, London, will discuss metamaterials and negative refraction. For PhAST, a talk by John Ambroseo, president and chief executive officer of Coherent Inc, based in Santa Clara, California, will focus on the photonics industry, its technology, and its market.

Student and career events

Several CLEO/QELS events during the week are aimed at students. "Thinking for Results," which will seek to improve attendees' networking skills and the quality of their job-seeking skills, will be held from 3:00 to 4:00pm Monday. A career workshop entitled "Finding and Securing Your Next Job" will be held from 10:30 to 11:30am Tuesday and will provide information and guidance to those seeking work in optics and photonics. "Women and Minorities in Physics" is the topic of a Wednesday talk from noon to 2:00pm.

PhAST is offering a two-part lunchtime career session Tuesday. From noon to 1:00 pm, industry leaders will discuss keys to success in the optics field and tell of their accomplishments in government, start-ups, and mature companies and in working with venture capitalists. From 1:00 to 2:00pm, a panel of business experts will address business strategy, management techniques, and start-up issues and how best to navigate the current business environment. The CLEO/QELS/PhAST career center will be open from 10:00am to 5:00pm Tuesday and Wednesday; on-site services will include access to job and resumé banks, networking, and job interviews.

The exhibit hall will be open from 10:00am to 5:00pm Tuesday and Wednesday and from 10:00am to 4:00pm Thursday in halls E through G and the swing space at the conference center.

Sessions with invited speakers

CLEO

Laser processing and optical instrumentation. *Maruo, Mazur, Sato, Taylor.*

Solid-state lasers. *Ikesue, Niece, Zhu.*

Semiconductor lasers. *Huffaker, Lee, Sargent, Yang.*

Applications of nonlinear optics. *Jalali, Laurell, Schunemann, Tahara, Vodopyanov.*

Terahertz technologies and applications. *Uhd, Roskos, Williams.*

Optical materials, fabrication, and characterization. *Grigorenko, Kung, Schmidt, Shirk, Xu.*

Ultrafast optics, optoelectronics, and applications. *Downer, Eikema, Forget, Nam, Stalnakar.*

Components, interconnects, and signal processing. *Itzler, Nakamo, Robbins, Tanida.*

Medical and biological applications. *Grier, Yun.*

Fiber and guided-wave amplifiers, lasers, and devices. *Inoue, Newbury, Ramachandran, Rarity, Westlund.*

Lightwave communications and networks. *Caplan, Kahn, Kawanishi, Radic.*

Active optical sensing. *Lehmann, Miles.*

Optical metrology. *Bergquist, Danzmann, Jones, Riehle.*

LEDs, organic LEDs, and solid-state lighting. *Adamovich, Craford, Nakagawa, Samuel.*

Micro- and nanophotonics. *Bowers, Engheta, Noda.*

QELS

Quantum optics and quantum atom optics. *Kuzmich, Ye.*

Quantum information. *Knill, Polzik.*

Fundamentals of metamaterials and periodic and random media. *Andreani, Milton.*

Ultrafast dynamics. *Brixner, Kimel.*

Nonlinear optics and novel phenomena. *Leuchs, Roy, Sheik-Bahue.*

Nano-optics and plasmonics. *Boltasseva, Lawandy, Zayats.*

PhAST

Photonics in homeland and national security. *Eversole, Jays, Shenoy, Silcott, Bains, Bufton, Treado, Robbins, Stoughton, Katona, Hug, Rudy, Johnson.*

Lasers in manufacturing. *Ozkan, Klotzbach, Hennig, Asonen, Mottay, Wu, Washio, Holmes, Ovsianikov, Forsman, Meunier.*

Commercialization of applied research. *Feldman, Jones, Baker, Soileau, Eastman, Manian, Golini.*

Solid-state lighting. *Haerle, Evans, Yang, Wetzel, Curran, Graham, Dmitriev, Wu.*

High-power laser systems. *Frede, Harry, Plettner, Bakshi, Dane, Thomas, Hofer, Dunn.*

Joint CLEO/QELS

High-field physics and high-intensity lasers. *Baker, Ditmire, Midorikawa, Wabnitz.*

Nanophotonics. *Zakhidov, Miller, Painter, Weeber.*

Joint CLEO/PhAST

Ultrafast laser processing and applications. *Wu, Washio, Holmes, Ovsianikov, Forsman.*

Biophotonics and applications. *Yazdanfar, Zuluaga, Khayat, De Marzo, Cable, Buckland, Sun, Zimdars.* ■



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