Applied and Basic Science Meet at Electro-Optics Conference in Baltimore

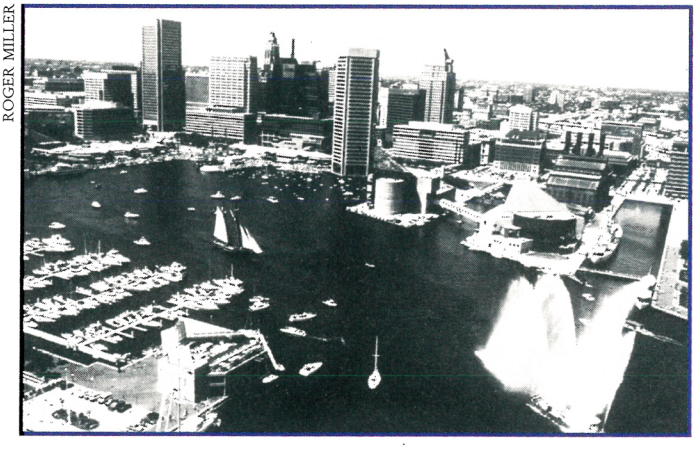
The Conference on Lasers and Electro-Optics (CLEO) and the Quantum Electronics and Laser Science (QELS) Conference will be held on 18–23 May at the Baltimore Convention Center in Baltimore, Maryland. The annual CLEO/QELS meeting will provide members of the electro-optics community a rich opportunity to learn from one another in both technical sessions and informal get-togethers.

The number of papers submitted to the meeting has increased 14% since last year. In the CLEO program, much of the growth stems from papers dealing with optics and sensors, medical and biological applications, semiconductor lasers and optical materials. Among the highlights to be presented in the technical program are the smallest structure fabricated with a laser, the use of femtosecond laser pulses for corneal ablation and high-power laser diode arrays. On the QELS side, there is an increased number of papers on photochemistry and photobiology, as well as on laser cooling and trapping and laser spectroscopy. The many stimulating topics include the study of atom optics, microcavities, images of single molecules and laser-based particle accelerators. Altogether, CLEO features 63 invited papers and 719 contributed papers while QELS has organized 56 invited and 301 contributed papers. The invited papers are listed in the accompanying table.

In addition to the technical sessions, which are the core of the conference, both programs are sprinkled with 12 hour-long tutorials on rapidly developing new areas such as Bose–Einstein condensation, laser–tissue interaction and microchip lasers. Those who want a deeper introduction to certain topics can enroll in one of the many short courses to be held from 6 to 10 pm on Sunday, 18 May, through Tuesday, 20 May. Poster sessions will be held Tuesday through Thursday in the convention center's exhibit hall.

The conference program also includes four evening sessions. Monday evening's topic will be the competing technologies for delivery of telecommunications data to the home. On Tuesday evening, one panel will discuss new laser sources for material processing in industrial applications, and another panel in a parallel session will deal with a medical application, laser skin resurfacing (removing wrinkles). Wednesday evening's focus will be the evidence for life on Mars. This last session will directly follow the conference reception, which will be held on Wednesday from 6:30 to 8 pm.

This year for the first time, CLEO/QELS will offer two short courses specifically designed for students, both to be held in sequence on Sunday afternoon, 18 May. One course will deal with how to give an effective overhead presentation, while the other will give hints on executing an effective job search. Also for the first time, CLEO/QELS is sponsoring two short courses for engineers and technicians who want to learn more about basic photonics. One, on understanding lasers and photonics, will be held on Sunday, 18 May, from 9 am to 5 pm. The other, on fiber optics technology and applications, will be conducted on Thursday, 22 May, from 1 to 5 pm.



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On the applications side, CLEO/QELS will continue the Lasers and Electro-Optics Applications Program (LEAP) begun last year. This year's program will consist of three morning sessions on Tuesday through Thursday and two afternoon sessions on Tuesday and Wednesday, concentrating on such applications-oriented topics as optical technology in surgery, intellectual property and product design and development.

The Optical Society of America (OSA) is sponsoring a new executive career advancement program on the Baltimore campus of the University of Maryland, a few blocks from the convention center. The four sessions, which will run from 9 am to 12 noon and from 2–6 pm on Sunday and Monday, 18–19 May, will deal with "meeting the people challenge," "taking technology to market," "managing intellectual property" and "winning government contracts."

At a plenary session beginning at 2 pm on Monday, 19 May, Steve Benton of MIT will talk about "Bits in Space: Speeding up Holographic Video," Dave Shaver of MIT's Lincoln Laboratory will speak about "Optical Lithography: How Much Further Can We Go?" and Peter Stockman of the Space Telescope Science Institute in Baltimore will discuss "The Hubble Space Telescope: New and Improved."

Three awards will be given at the plenary session. OSA will present its Charles Hard Townes Award to **Linn Mollenauer**, a distinguished member of the technical staff at Bell Laboratories, Lucent Technologies in Holmdel, New Jersey. The award is being given for his "pioneering ultrafast optics in the 1.5 micron wavelength regime, demonstrating optical soliton propagation in fibers, and developing innovative soliton systems that have set records for high-capacity repeaterless data transmission." OSA will also honor **Boris Ya. Zel'dovich** with the Max Born Medal for "his seminal contributions to the discovery and theoretical understanding of optical phase conjugation." Zel'dovich is a professor of physics at the University of Central Florida. The Lasers and Electro-Optics Society of the Institute for Electrical and Electronic Engineers (IEEE/LEOS) will also give the 1997 Quantum Electronics Award, but the recipient had not been announced by press time.

The laser and electro-optics equipment show will run from Tuesday, 20 May, through Thursday, 22 May, in the convention center. Its hours will be 10 am to 5 pm on each of those days. No CLEO/QELS sessions are scheduled on Wednesday from 10 am to 12 noon so that conference attendees will have more time to attend the exhibit. The exhibitors will supply coffee and donuts during that "exhibit only" period.

CLEO/QELS will maintain a staffed press room from Monday through Thurs-

day in the convention center. It will be open from 8 am to 5 pm. The conference will also sponsor an employment center located in the exhibit hall. Its hours will be 10 am to 5 pm on Monday, 9 am to 5 pm on Tuesday through Thursday and 9 am to 2 pm on Friday.

The CLEO/QELS meeting is cosponsored by OSA and IEEE/LEOS, in cooperation with the laser science division of the American Physical Society. ■

Sessions with Invited Speakers

Monday, 19 May

morning

High-power diode lasers. *Mawst.*
Holographic data storage. *Sincerbox*
High-power ultrafast lasers. *Baltuska*
Optical interconnections and components. *Henmi*
Coherent spectroscopy of semiconductors. *Elsaesser*
Quantum measurement. *Haroche*
Quasi-phase-matched devices. *Myers*
Wavelength conversion. *Danielsen*
Data storage. *Gray, Olego, Osinski*
Compact ultrafast lasers. *Jung*
Imaging and characterization of highly scattering media. *Kaschke*
Coherent spectroscopy of solids. *Meerholz, Lemmer, Kuwata-Gonokami, Bonadea*
Multiphoton physics. *Corkum, DiMauro*
WDM sources. *Zirngibl*
Quantum information. *Leibfried*
CLEO/QELS plenary and awards session. *Benton, Shaver, Stockman Jr*

Tuesday, 20 May

morning

Optical studies of cell properties. *Richardson*
Lasers without inversion and EIT. *Harris*
LEAP: Optical technology in surgery: Details and hints for nurses.
High field interactions. *Bula*
Bose–Einstein condensation I. *Ketterle*
Nanoscale material processing. *Venkatesan*
Phase conjugation in laser systems. *Damzen*
Ultrafast communications. *Kurita*
Fiber gratings and applications. *Ball*
Bose–Einstein condensation II. *Gardiner*
III–V compound semiconductors. *Den-Baars, Charbonneau*

afternoon

LEAP: Intellectual property and technology licensing.
Femtosecond laser materials processing. *Stuart*
Ultrafast measurements and applications. *Fujimoto*
Ophthalmic applications. *Toth*
Novel coherent effects. *Garrett, Höfer*
Forces on atoms. *Arndt, Aspect*
Nonlinear effects in fibers. *Doran*
Printing I. *DeBoer, Kim, Bringans*
LIDAR II. *Winker*
Spatial solitons. *Luther-Davies*
Laser surface processing and microfabrication. *Schuessler*
Joint session on ultrafast lasers. *Spielmann*

Wednesday, 21 May

morning

Oxide-confined VCSELs. *Deppe, Lear*
WDM network technology. *Yukimatsu, Srinivasan*
Optical coherence tomography. *Schmitt*
Spatial and spectral holography. *Babbitt*
Terahertz spectroscopy. *Zhang, Schmuttenmaer, Grischkowsky*
χ^2 and χ^3 nonlinear optics. *Shalaev, Lee*
LEAP: Applications and economics of diode pumped solid state lasers.

afternoon

LEAP: Product design and development process.
LIDAR III. *Henderson*
Local access networks. *Shumate*
Atomic interference. *Shimizu, Weitz*
Chemical dynamics. *Vaccaro, Gordon*
Microwave/analog technology. *LaGasse*
High-speed optoelectronics. *Kash*
Spectroscopic diagnostics. *Bigio*
Nanoscale atomic distributions. *Pfau, Abraham*

Thursday, 22 May

morning

Novel semiconductor laser devices and materials. *Bowers*
Display. *Visser, Nakamura, Melcher, Tennent*
Joint session on laser based particle acceleration. *Joshi, Umstadter, Wurtele*
Mid-IR to THz phenomena. *Kurz, Bonvalet*
Quantum optics. *Orozco*
Nonlinear optical effects I. *Canioni*
LEAP: Buying and applying optics and coatings.
Visible semiconductor lasers. *Hiroyama*
Ultrafast fiber lasers. *Galvanauskas*
Transmission systems. *Hansen*
Protein dynamics I. *Hochstrasser, Winkler*
Photorefractive spatial solitons. *Chen*
Nonlinear optical materials and CW OPOs. *Schunemann*

afternoon

Protein dynamics II. *Fayer, Gai, Dutton*
Organic nonlinear optical materials. *Ledoux*
Tunable lasers I. *Schwarz*
Printing II. *Harada*
Inter-subband lasers. *Scamarcio*
Ultrafast physics of semiconductors and materials. *Kersting, Plessen*
Quadratic solitons. *Kang*

Friday, 23 May

morning

Pulsed fiber lasers. *Fermann*
XUV and x-ray generation. *Da Silva, Chang*
Imaging in chemistry and biology I. *Webb, Trautman, Gheber, Naraghi*
Nonlinear optical effects II. *Mazur*
Detectors and receivers. *Wulfmeyer*
Ultrahigh intensity lasers I. *Barty*
Imaging in chemistry and biology II. *Xie, Penner*
Laser sources and systems. *Yu*
Nonlinear measurements for material characterization. *Downer*

afternoon

UV frequency conversion. *Kubota*
Laser spectroscopy. *Vilesov*
Tunable diode laser sensors. *Fried*
Ultrahigh intensity lasers II. *Hirst*
Photonic bandgap structures. *Rosenberg*
Nonlinear optics of semiconductors. *Schülzgen*
Diode-pumped visible lasers. *Huber*