



Quantum Electronics Conference meets in Atlanta

This year's conference will be sparked by a series of guest speakers, a special session on chemical and molecular lasers, the presentation of the Quantum Electronics Award and an extensive exhibit of scientific instruments.

Robin A. White

The unofficial capital of the sunny "New South," Atlanta, Georgia, will be the site for the Tenth International Quantum Electronics Conference with 24 sessions devoted to one of the "hottest" fields in physics. Scheduled to begin on Monday, 29 May and wind up on Thursday, 1 June, the Conference will meet at the Atlanta Hilton Hotel. The American Institute of Physics and the Institute of Electrical and Electronics Engineers are sponsoring the conference through their joint council on quantum electronics. Other co-sponsors of the conference are the International Union of Pure and Applied Physics and the European Physical Society through a joint council that includes the quantum electronics division of the EPS. Additionally, a concurrent conference on chemical and molecular lasers will be held as one of the scheduled sessions.

Some other highlights of the four-day conference will be the presentation of the Quantum Electronics Award to A. Gardner Fox and an exhibit of scientific instrumentation.

Advance registration for the conference is possible by mail up to 15 May by writing: 10th International Quantum Electronics Conference, 1629 K Street NW, Suite 700, Washington, D.C. 20006. The fee for advanced registration is \$50, representing a savings of \$5.00 from the regular registration fee to be charged at the beginning of the conference. Regular registration will take place starting Sunday, 28 May in the pre-function area of the Atlanta Hilton from 5:00 pm to 8:00 pm. Advance registration for the reception scheduled on Monday night is strongly encouraged by the conference coordinators.

Over 1500 scientists and engineers will

attend this year's conference, one of a series that convenes in even-numbered years, alternating with CLEA, the Conference on Laser Engineering Applications. The session schedule includes approximately 175 papers and special speakers divided into 24 general sessions. In addition, there will be "post-deadline" sessions devoted to the most recent research, some initiated just this year, which will allow important new developments to be aired and discussed.

Invited speakers

Some of this year's featured speakers are:

► Philip W. Anderson of Bell Laboratories and Princeton University, who will present a paper entitled "Localization" in which he will survey the origin of localization theory and discuss some of the newest developments in this field. Anderson will speak at the session of laser

interactions in condensed media to be led by D. M. Auston of Bell Laboratories.

► Charles M. Townes of the University of California, Berkeley will discuss infrared heterodyne astronomy as an application of quantum electronics at the "Tunable Lasers and Spectroscopy" session. A. Szabo of the National Research Council of Canada will preside as chairman of the session.

► Willis E. Lamb of the University of Arizona will present a paper on "Classical Treatment of Laser Dissociation of Polyatomic Molecules" in the session devoted to laser-induced chemistry. R. W. Mellor of the University of California will serve as the session chairman.

► Nikolai G. Basov of the Lebedev Physical Institute in Moscow will be a guest speaker at the "Infrared Gas Lasers" session led by P. V. Avizonis of the US Air Force Weapons Laboratory.



Robin A. White is editorial assistant on the staff of PHYSICS TODAY.

► Aleksandr M. Prokhorov, also of the Lebedev Institute, will be a special invited speaker at the session on solid-state lasers, optical materials, detectors and devices, and will offer a paper entitled "Progress in Integrated Optics in the USSR." R. E. Palmer of Sandia Laboratories will act as chairman of this session.

► Nicolaas Bloembergen of Harvard University will start the session on non-linear optics with a paper entitled "Perspectives in Non-Linear Optics." The session chairman will be K. L. Kelley of Lincoln Laboratories.

► Arthur L. Schawlow of Stanford University will present one of the highlighted papers at the session on high-resolution spectroscopy with his "High Resolution Laser Spectroscopy." Another featured paper at this session will be that of Norman Ramsey of Harvard University, who will start the session with his paper on "Interference Experiments Using Spatially Separated Fields." The chairman for this session is R. D. Deslattes from the National Bureau of Standards.

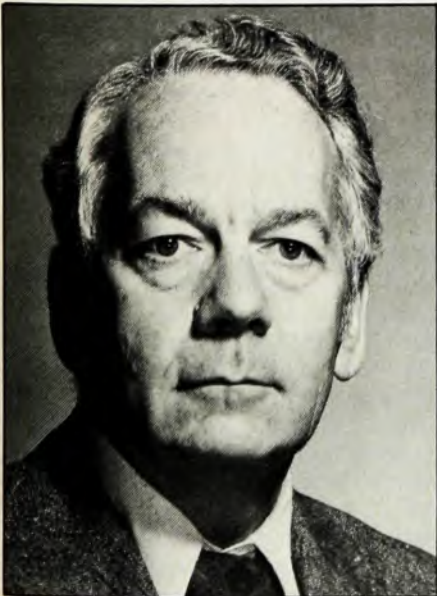
Award ceremony

The Quantum Electronics Award will be presented at the start of the session on bi-stable devices and non-linear susceptibilities. Consisting of a certificate and a cash prize, this year's award will be given to A. Gardner Fox of Bell Laboratories.

The Award is given to honor an individual or a group for outstanding technical contributions in quantum electronics, either fundamental or applied, or for the creation of a major invention, scientific contribution or series of distinguished scientific contributions over a long period of time.

Fox is the holder of some 53 patents in microwave and quantum electronics. He received his advanced training in electrical engineering at the Massachusetts Institute of Technology, graduating in 1936.

FOX



Sessions and special events

MORNING

Session A:	High Resolution Spectroscopy <i>R. D. Deslattes,</i>	Grand Ballroom East
Session B:	Free Electron Lasers <i>H. Kogelnik,</i>	Grand Ballroom C
Session C:	Solid-State Lasers, Optical Materials, Detectors and Devices <i>R. E. Palmer,</i>	Grand Ballroom D

AFTERNOON

Award Presentation:	Quantum Electronics Award <i>A. G. Fox,</i>	Grand Ballroom D
Session D:	Tunable Lasers and Spectroscopy <i>A. Szabo,</i>	Grand Ballroom East
Session E:	Laser-Induced Chemistry 1 <i>R. W. Hellwarth,</i>	Grand Ballroom C
Session F:	Bistable Devices and Nonlinear Susceptibilities <i>A. G. Fox,</i>	Grand Ballroom D

MORNING

Session G:	Nonlinear Spectroscopy <i>J. L. Hall,</i>	Grand Ballroom East
Session H:	Chemical and Molecular Lasers <i>J. D. Kelley,</i>	Grand Ballroom C
Session I:	Novel Applications and Laser-Produced Plasmas <i>A. J. Glass,</i>	Grand Ballroom D

AFTERNOON

Session J:	Nonlinear Optics <i>P. L. Kelley,</i>	Grand Ballroom East
Session K:	Infrared Gas Lasers <i>P. V. Avizonis,</i>	Grand Ballroom C
Session L:	Autoionizing States and Ultraviolet Generation <i>J. J. Wynne,</i>	Grand Ballroom D

MORNING

Session M:	Laser Interactions in Condensed Media <i>D. H. Auston,</i>	Grand Ballroom East
Session N:	Laser Isotope Separation <i>C. D. Cantrell,</i>	Grand Ballroom C
Session O:	Phase Conjugation and Nonlinear Optics Applications <i>V. Evtuhov,</i>	Grand Ballroom D

AFTERNOON

Session P:	Post-Deadline papers,	Grand Ballroom East
Session Q:	Laser Induced Chemistry 2 <i>C. P. Robinson,</i>	Grand Ballroom C
Session R:	Quantum Optics 1 <i>R. Y. Chiao,</i>	Grand Ballroom D

MORNING

Session S:	Post-Deadline Papers,	Grand Ballroom East
Session T:	Quantum Optics 2 <i>B. Bölger,</i>	Grand Ballroom C
Session U:	uv and Excimer Lasers 1 <i>R. C. Elton,</i>	Grand Ballroom D

AFTERNOON

Session V:	Post-Deadline Papers,	Grand Ballroom East
Session W:	Multiphoton Excitation and Generation, <i>F. A. Hopf,</i>	Grand Ballroom C
Session X:	uv and Excimer Lasers 2 <i>D. J. Bradley,</i>	Grand Ballroom D

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He joined Bell Laboratories after graduation and remained with Bell up to his retirement in 1977. Fox specialized first in the field of microwave transmitters and radar, but later broadened his interests to include extensive research in microwave physics, especially on ferrites, dielectrics and semiconductors. He became head of Bell's department of microwave physics in 1953.

His next research focus was on optical masers, and he concentrated his attention within this field to study the theory of optical resonators. In conjunction with this new focus, Fox was made head of the department of coherent wave physics at Bell Labs. During 1976-77, he served as head of the department of radio systems research, after having taken over the responsibilities of editing the *IEEE Journal of Quantum Electronics* in 1970.

Tourist Atlanta

The sponsors of this conference have organized two tours for those not planning to attend sessions on Monday and Tuesday to permit them the opportunity to show off the richly historic city of Atlanta and its environs. The first such tour, departing the Atlanta Hilton on Monday morning at 9:30, will examine the antebellum homes and mansions in the nearby village of Covington. This tour, including a side trip to Stone Mountain, costs \$16 with all expenses, including lunch, covered by the basic price.

Leaving the hotel the same time on Tuesday, the second tour will illustrate the startling growth that has come to make Atlanta one of the capitals of the Sun Belt and a center for culture. Entitled "Elegant Atlanta," the tour will also visit prominent homes located right in the heart of the modern, downtown section. The price for this tour, again including all transportation and lunch, is \$15.

Equipment exhibit

The latest developments in laser technology will be on display at the IQEC '78 exhibition. Located in the large hall adjacent to the session rooms and registration desk, the exhibit will feature an array of lasers and laser-related equipment, including ion, tunable, pulsed, dye and high-energy infrared types. Holographic systems and high-precision measuring apparatus will also be on display.

The exhibit opens on Monday, 29 May at 11:00 am and closes that day at 6:00 pm. On Tuesday, the hall will open at 9:00 am and close at 6:00 pm and on Wednesday the hours will be 9:00 am to 5:30 pm. On the final day of the conference, Thursday, the exhibit will open at 9:00 am and be closed at 1:00 pm.

Specific instruments and equipment of special interest and shown in operation will be Fabry-Perot interferometers, piezoelectric translators, variable and confocal etalons and diode laser spectrometers. □