

1990 I

The American Physical Society

DIVISION OF ATOMIC, MOLECULAR, AND OPTICAL PHYSICS

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TO: Members of the Division of Atomic, Molecular, and Optical Physics
from Win Smith.

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I. ELECTION OF NEW DIVISIONAL OFFICERS FOR 1990-1991

The following candidates have been nominated by the Nominating Committee (Daniel Kleppner, chair; A. Kalgarno, W. Kaupilla, S. Leone and W.W. Smith) and have agreed to run for the terms indicated. There is ONE VACANCY for each office:

For Vice-Chair (one year term):

J. Norman Bardsley (Lawrence Livermore Nat. Lab.)
Patricia M. Dehmer (Argonne National Lab.)

For Executive Committee (three-year term):

F. Barry Dunning (Rice University)
Peter M. Koch (SUNY Stony Brook)
Carl Wieman (JILA)

For Secretary-Treasurer (three-year term):

Mark D. Havey (Old Dominion University)
James McGuire (Kansas State University)
John A. Tanis (Western Michigan University)

A ballot is enclosed (colored sheet). Please return it by March 16, 1990!

BIOGRAPHIES of Candidates for Election of Vice-Chairperson:

BARDSLEY, J. NORMAN, 48, BA 1961, PhD 1965, University of Manchester. Assistant Lecturer and Lecturer, University of Manchester, 1965-70; Research Associate, University of Pittsburgh, 1968-69; Assistant Professor, University of Texas at Austin, 1969-70; Associate Professor and Professor, University of Pittsburgh, 1970-88; Associate Division Leader, V Division, Lawrence Livermore National Laboratory, 1987-present. Visiting Fellow, Joint Institute for Laboratory Astrophysics, 1974-75 and 1985-86; Visiting Staff Member, Los Alamos National Laboratory, 1977-78; Visiting Astronomer, Observatoire de Paris, 1980; Program Director for Atomic, Molecular and Plasma Physics, National Science Foundation, 1984-85. Consultant, IBM Research Laboratories, San Jose, 1972; GTE, Physical Electronics Laboratory, 1984-86. Advisory Committee, Health and Safety Research Division, Oak Ridge National Laboratory, 1987-present. DEAP/DAMOP Program Committee, 1974-76; Executive Committee, 1977-78, 1987-88; Nominations Committee, 1980; Davisson-Germer Prize Committee, 1980; Publications Committee, 1983-84; Allis Prize Committee, 1989-92. Editorial Board, Physical Review A, 1978-80; Journal of Physics B, 1986-89; Physical Review Letters, 1979-82. Secretary, ICPEAC, 1989-95; Program Committee, Conference on Atomic Processes in High Temperature Plasmas, 1987; Optical Society Conference on High Energy Density Physics with Subpicosecond Lasers, 1989; Co-chairman, NATO ASI on Non-Equilibrium Processes in Partly Ionized Gases, 1989. **RESEARCH INTERESTS:** Theory of low-energy atomic collisions; interactions of intense lasers with atoms; physics of gas discharges and laser-produced plasmas; plasma chemistry; collision processes in the atmosphere and interstellar space; quantum dynamics in classically chaotic regions.

DEHMER, PATRICIA M., 44, BS 1967, University of Illinois; PhD 1972, University of Chicago. Postdoctoral Fellow, 1972-75; Assistant Scientist, 1975-78, Scientist, 1978-85; Senior Scientist, 1985-present; Argonne National Laboratory. Fellow, American Physical Society; Member, Optical Society of America and American Chemical Society. University of Chicago Award for Distinguished Performance at Argonne National Laboratory, 1989. NSF Advisory Committee for Physics, 1988-91; NSF Review Panel for the Atomic, Molecular, Optical, and Plasma Physics Program, 1985, 88; NSF Physics Division Selection Committee for the Presidential Young Investigator Award, 1985-86 (Chair, 1986). Review Panel, National Institute of Standards and Technology Center for Atomic, Molecular, and Optical Physics, 1988-91. Council of the Gordon Research Conferences, 1987-89. Chair, Gordon Research Conference on Multiphoton Processes, 1986. Organizing Committee, Fifth International Conference on Multiphoton Processes, 1990. Editorial Board, Review of Scientific Instruments, 1985-87. **DAMOP ACTIVITIES:** Secretary-Treasurer, 1981-84; Executive Committee, 1979, 81-84, 86-89; Program Committee, 1980, 82-84; Bylaws Committee, 1984 (Chair); Local Organizing Committee, 1992 Meeting. **GENERAL APS ACTIVITIES:** Councillor-at-Large, 1987-90; Publications Committee, 1980-82; Committee on Opportunities in Physics, 1984-86; Committee on Constitution and Bylaws, 1986-88, 90-92 (Chair, 1988); Audit Committee, 1987-88 (Chair, 1988); Committee on the Status of Women in Physics, 1987-89; Executive Committee, 1989-90; Budget Committee, 1989-90; Committee on Committees, 1989-90 (Chair, 1990); Task Force on Laser Science Meetings (1988), on Topical Groups (1988), on Governance (1988-90). Laser Science Topical Group Nominating Committee, 1985 (Chair); Finance Committee, 1989; Steering Committee, 1989-92. **RESEARCH INTERESTS:** Multiphoton and vacuum ultraviolet studies of the electronic structure of atoms, small molecules, free radicals, and van der Waals clusters; Rydberg state decay processes involving the interaction of discrete and continuum states emphasizing autoionization and predissociation phenomena; chemiionization and ion-molecule reactions; photoelectron spectroscopy.

For Executive Committee:

DUNNING, F. BARRY, 44, BSc 1966, University College London, U.K.; PhD 1969, University College London. Imperial Chemical Industries Postdoctoral Fellow, University College London, 1969-71; Research Associate, Rice University, 1971-74; Assistant Professor, Rice University, 1974-78; Associate Professor, Rice University, 1978-82; Professor, Rice University, 1982-present. Science Faculty Medal, University College London, 1966. Sloan Fellowship, 1976. Excellence in Teaching Awards, Rice University, 1981, '83, '84, '85. Fellow, APS 1986. Local Organizing Committee, Houston, GEC 1974, DEAP 1979. Churchill Foundation Scholarship Committee 1985-86; NSF Graduate Fellowship Panel for Physics and Astronomy 1986-87; DAMOP Program Committee 1988-present; Editorial Board, Review of Scientific Instruments, 1989-present. **RESEARCH INTERESTS:** Rydberg atoms (behavior in external fields, collisional properties), electron-molecule collisions at subthermal electron energies (inelastic scattering, electron attachment), dynamics of atom-molecule and atom-surface interactions (Penning ionization, metastable atom deexcitation spectroscopy), lasers and non-linear optics, optical pumping, electron spin polarimetry, spin-sensitive surface spectroscopies (surface electronic and magnetic structure, chemisorption)

KOCH, PETER M., 44, U.S. Naval Academy, 1963-65 (resigned); honorable discharge, U.S. Naval Reserve, 1969; BS 1967, University of Michigan; MPhil 1969, PhD 1974, Yale University; Research Physicist (coherent optics), Conduccion Corporation 1967; Instructor 1974-75, Research Staff Physicist and Lecturer 1975--76, Assistant Professor 1976-81, Junior Faculty Fellow 1980-81, Associate Professor 1981-82, Yale University; Assistant Professor 1982-84, Associate Professor 1984-89, Professor 1989-present, State University of New York at Stony Brook; Consultant, IBM T.J. Watson Research Laboratory 1980; Attache de Recherche, C.N.R.S., France (at l'Ecole Normale Supérieure, Paris) and Guest Scientist, L.U.R.E., Orsay, France 1980-81; Consultant, JILA Data Center, 1983-84; Phi Kappa Phi, elected 1965; Sigma Xi, elected 1975; Alfred P. Sloan Foundation Fellowship for Basic Research 1978-82; Alexander von Humboldt Foundation Senior U.S. Scientist Award (at Max-Planck-Institute for Quantum Optics, Garching, F.R.G.) 1989-90; 11th Annual Hanan Rosenthal Memorial Lecturer (Columbia and Yale Universities) 1983; DEAP Program Committee 1983-85; Committee on Line Spectra, National Research Council 1987-90; Committee on Atomic, Molecular and Optical Sciences, National Research Council 1988-91; International Advisory Board, VIII International Seminar on Ion-Atom Collisions (Utrecht) 1983; Program Committee Chair, Local Organizing Committee, XVI International Conference on the Physics of Electronic and Atomic Collisions (New York City 1989) 1983-89; General Committee, International Conference on the Physics of Electronic and Atomic Collisions, 1989-94; Member: American Physical Society, American Association for the Advancement of Science, Sigma Xi, NLSL Users' Group (BNL). **RESEARCH INTERESTS:** Simple (hydrogen or helium) Rydberg atoms in intense (non-perturbative), external static and/or oscillatory fields; quantum behavior of classically chaotic, Hamiltonian systems; multiphoton excitation and ionization of atoms; atomic spectroscopy using fast beams and lasers; ion-atom, atom-atom, atom-molecule collisions; synchrotron radiation studies (with combined use of lasers) for atomic spectroscopy and studies of collision processes.

WIEMAN, CARL, 37, BS, 1973, MIT; PHD, 1977, Stanford University; Assistant Research Scientist, University of Michigan, 1977-79; Assistant Professor, University of Michigan, 1979-84; Associate Professor, University of Colorado, 1984-87; Fellow of JILA, University of Colorado, 1985-present; Professor of Physics, University of Colorado, 1987-present; Sloan Fellow, 1984-87; Member, DAMOP Publications Committee, 1986-88; Member, Program Committees IQEC '87, IQEC '90; International Conference on Laser Spectroscopy and Materials '87; Member, NSF Presidential Young Investigator Selection Panel '87; Member, Review Committee for NSF atomic, molecular, and plasma physics program, 1988; Member, DOE Basic energy sciences advisory subcommittee on physics, 1989; Guest editor JOSA B. 1989. **RESEARCH INTERESTS:** High resolution laser spectroscopy, parity nonconservation in atoms, anapole moments, laser cooling and trapping of neutral atoms, very low energy atomic collisions.

For Secretary-Treasurer:

HAVEY, MARK D., 38, BS 1973, University of Maine; PhD 1977, University of New Hampshire. Postdoctoral Research Associate, University of New Hampshire, 1977-78; Postdoctoral Research Associate, Massachusetts Institute of Technology, 1978-79; Research Scientist, University of New Hampshire, 1979-80; Assistant Professor of Physics, Old Dominion University, 1980-86; Associate Professor of Physics, Old Dominion University, 1986-present. Member, American Physical Society. Member, Society of Tau Beta Pi. Member, Local Organizing Committee 8th ICSLS, 1986; Member, Program Advisory Committee 8th ICSLS, 1986; Member, Laser Spectroscopy Program Committee, IQEC, 1987. **RESEARCH INTERESTS:** Experimental studies of nonadiabatic effects in laser-assisted collisions and photodissociation, spectroscopy of van der Waals diatomic molecules, and gas phase spin exchange and spin relaxation.

MCGUIRE, JIM, 47, B.S., Rensselaer Polytechnic, 1964; PhD, Northeastern University 1969. Assistant Professor, Texas A&M University; 1972, Assistant Professor, Kansas State University; 1973-74, ASEE-NASA Summer Fellow, Goddard Space Flight Center; 1976-83, Associate Professor, Kansas State University; 1980-81, Visiting Research Scientist, Hahn Meitner Institute; 1983-present, Professor, Kansas State University; 1988 NORDITA Fellow, University of Aarhus. Member and Fellow American Physical Society; Member American Chemical Society; Member American Association of Physics Teachers; Secretary Atomic Molecular and Optical Theory Community, 1987-present; Program Committee of Division of Atomic, Molecular, and Optical Physics, 1988-present; Program Committee of Topical Group on Few Body Systems and Multi-Particle Dynamics; Co-Chairman, Theory Section for the Panel on Accelerator Based Atomic and Molecular Science (CAMS-NAS-NRC), 1981; Chairman, Coordinate Studies for Workshop on Atomic Molecular and Optical Theory for the Armstrong Panel of the National Academy of Sciences, 1985; General Committee, International Conference on the Physics of Electronic and Atomic Collisions, 1985-89; Co-chairman-International Seminar on Ion-Atom Collisions, 1989; International Advising Board for Workshop on High Energy Ionization Collisions, Debrecen, Hungary, 1987; Phi Kappa Phi; Sigma Xi. **RESEARCH INTERESTS:** Dynamic Correlation in Atomic and Molecular Collisions Higher Born Methods; Single and Multiple Ionization, Excitation and Transfer of Atomic Electrons by the Impact of Charged Particles and Antimatter; Transfer of Electrons and Atoms in Collisions with Ions, Positrons and Molecules.

TANIS, JOHN A., 44, BA 1967, Hope College; MS 1969, University of Iowa; PhD 1976, New York University; Member of Technical Staff, Bell Laboratories, 1969-73; Postdoctoral Research Associate, University of North Carolina, 1975-77; Visiting Assistant Professor, East Carolina University, 1977-78; Staff Scientist, Lawrence Berkeley Laboratory, 1979-80; Assistant Professor, Western Michigan University, 1980-82; Associate Professor, Western Michigan University, 1982-87; Visiting Scientist, Hahn-Meitner-Institut, 1986-87; Professor, Western Michigan University, 1987-present; Chairperson, Department of Physics, Western Michigan University, 1989-present; Consultant, Lawrence Livermore Laboratory, 1989-present. **RESEARCH INTERESTS:** Experimental investigations of excitation and charge-changing in ion-atom collisions with particular emphasis on two- (or multi-) electron processes and electron-correlation effects.

II. 1990 Annual Meeting of the Division of Atomic, Molecular and Optical Physics: Monterey, California 21-23 May 1990

The 21st Annual Meeting of the Atomic, Molecular and Optical Physics Division (DAMOP) will be held in Monterey, California on May 21-23, 1990. The meeting will be hosted by the Physics Department of the Lawrence Livermore National Laboratory; Dr. Thomas N. Rescigno will chair the local committee. The meeting will be headquartered at the Doubletree Hotel, located on Fisherman's Wharf in Monterey. All scientific sessions and social functions will be held at the Doubletree and the adjoining Monterey Conference Center.

The deadline for submission of abstracts of contributed papers for this meeting was February 5, 1990. **Post-deadline abstracts** may be sent to:

Dr. Thomas N. Rescigno, 1990 DAMOP, Lawrence Livermore National Laboratory, P.O. Box 808, L-438, Livermore, CA 94550. These will be accommodated at the discretion of the local chairman as long as space and time permits but they **will not be published in the APS Bulletin.**

Location of Meeting: Preregistration

The Monterey Peninsula on the California central coast is an area of great natural beauty and also contains many historical points of interest. The 17-mile Drive, Point Lobos, Cannery Row and the Monterey Aquarium, Carmel and Pacific Grove feature among the local attractions of the area; to the south lies Big Sur. Monterey is also a good starting point for excursions north to the San Francisco Bay Area or east to California's National Parks. No formal companions' program is planned during the meeting, but information about the many sights of the Monterey area will be available.

Advanced registration is encouraged. **Preregistration forms are included at the end of this Newsletter.** The registration fee will be \$125 for APS members and \$70 for students if preregistration is received on or before **April 1, 1990.** Registration thereafter will be \$135 for members and \$80 for students. The registration fee for nonmembers is \$180. The registration fee includes the welcoming reception on Sunday evening, a luncheon on Monday, the conference banquet on Tuesday evening and refreshments during the meeting. **Please register as soon as possible!**

Travel & Lodging

Air --- Monterey is located approximately ninety miles south of San Francisco and is served by the Monterey airport. There are frequent connecting flights between Monterey and both San Francisco and San Jose International Airports. We have made arrangements with **United Airlines** for **SPECIAL DISCOUNT FARES** for this meeting. In addition to offering **40% off regular unrestricted coach fares**, United will also discount their supersaver fares an additional 5%. **To reserve these fares, call United at (800) 521-4041 and use the Profile Number 436 AB** reserved for attendees of this meeting. You must use this Profile Number to procure these special discounts. If you book through a travel agency, be sure to give your agent the profile number.

III. SYMPOSIA OF INVITED TALKS FOR THE 1990 (21ST) ANNUAL MEETING OF THE DIVISION OF AMO PHYSICS, MONTEREY, CA, 21-23 MAY 1990

1. Precision Tests of Fundamental Symmetries, co-sponsored by DAMOP and the Precision Measurements Topical Group of APS. (Larry Hunter, chair)

[titles of talks are unofficial and may change]

Eugene Commins, Berkeley, "Searches for atomic electric dipole moments"

Blayne Heckel, U. Washington, "Present limits on the neutron electric dipole moment"

Marie-Anne Bouchiat, Paris, "Measurements of atomic parity violation"

Walter Johnson, Notre Dame, "Theory of P and T violation in atoms"

2. Atoms and molecules at surfaces (Barry Dunning, chair)

R.J. Celotta, NIST Gaithersburg, "Tunneling microscopy of atoms on surfaces"

J.L. Erskine, Texas, Austin, "Use of inelastic electron scattering to probe atoms and molecules at surfaces"

J.C. Tully, AT&T Bell, Murray Hill, "Excited and charged states of atoms and molecules at surfaces"

J.T. Yates, Pittsburgh, "Imaging chemical bond directions at surfaces - the study of structure and vibrational dynamics of adsorbed species" [Continued ----->]

3. Antimatter interactions with matter (Ivan Sellin, chair)
Gerald Gabrielse, Harvard, "Cooling antiprotons with cold electrons"
James Cohen, Los Alamos, "Exotic atoms and molecules in fusion catalysis"
Michael Charlton, London, "Collisions of low- and intermediate energy antiparticles"
Joachim Burgdoerfer, Tennessee, "Fast antiproton interactions in condensed matter"
4. Atoms in Intense Radiation Fields (Howard Bryant, chair)
M.D. Perry, Lawrence Livermore, "The role of resonances in strong-field multiphoton processes"
Wilhelm Becker, New Mexico, "Simple models for above-threshold ionization and higher harmonic production in rare gases"
C.R. Quick, Jr., Los Alamos, "Experimental studies of multiphoton detachment of the H- ion"
W.G. Greenwood, Pacific Lutheran, "Numerical simulation of multiphoton detachment of H-"
5. New Sources of Short Wavelength Radiation, being organized by Andy Hazi.
Brian MacGowan, LLNL, "Recent experimental studies of laboratory X-ray lasers"
Other speakers to be announced.
6. New Facilities and Techniques (Dana Anderson, chair)
D. Pritchard, MIT, "Atom optics"
C.L. Cocke, Kansas State Univ., "Electron-ion collisions in the KSU EBIS"
S. Datz, ORNL, "Early reports of atomic physics from rings and things"
W. Warren, Princeton, "Short pulse techniques - a revolution in internal dynamics"
Speaker to be named, "Diode Lasers and their increasing use and influence in atomic physics research"
7. Hot Topics (organized by Gordon Dunn)
C. Wieman, JILA, "Long range forces and collective behavior of optically trapped atoms"
J.C. Bergquist, NIST, "Single-ion optical spectroscopy at the Hertz level"
M. Lubell, City College of New York, "Polarized e-H scattering and the ionization threshold law"
J.K. Swenson, LLNL, "Coulomb focusing in low-energy He+ - He collisions"

8. Special invited talks will be presented at Monterey by the winners of the APS Davisson-Germer Prize in Atomic Physics and the new Allis Prize in Gaseous Electronics.

**IV. SYMPOSIA SPONSORED BY THE DIVISION AT THE
WASHINGTON APS MEETING, APRIL 16-19, 1990**

or of special interest to Division members:

1. Joint DAMOP-Division of Astrophysics Symposium, Atomic and Molecular Physics
in Laboratory and Astrophysical Plasmas

Alice Harding, NASA Goddard, "Radiative transfer in strong magnetic fields near
neutron stars"

Adair Lane, Boston University, "Molecular astrophysics of interstellar clouds"

John Seely, NRL Washington, "Atomic physics of highly charged ions in
laboratory plasmas"

Russel Hulse, Princeton PPPL, "Atomic processes in magnetically-confined fusion
plasmas"

2. Few Electron Effects

C.D. Lin, Kansas State, "Coulombic three-body problem of arbitrary masses"

J.H. Macek, Tennessee, "Correlation in intermediate states in ion-atom collisions"

W.E. Meyerhof, Stanford, "Two-center few-body effects"

A. Chetoui, Institut P. et M. Curie, "Observations of few electron transitions"

3. Synchrotron Light Sources (Joint Symposium with the Division of Particle Beams)

B. Batterman, Cornell, "Synchrotron Radiation Sources - A Multidisciplinary
Research Tool"

Y. Cho, ANL, "Performance of Existing Synchrotron Radiation Sources and
Challenges of the Next Generation"

Y.T. Lee, UC Berkeley, "Chemical Dynamics with an IR FEL and Synchrotron
Radiation"

G.S. Brown, Stanford, "Experience with High Brightness X-Ray Undulator
Beams at Cornell and Stanford"

G. Williams, BNL, "Synchrotron Radiation as an IR Source"

R.B. Palmer, SLAC/BNL, "Prospects for a FEL"

4. Accelerator Technology (Symposium of the Division of Particle Beams)

- J. Feinstein, Stanford, "Next Generation RF Power Sources"
- R. Sundelin, CEBAF, "Superconducting RF Structures"
- J. Seeman, SLAC, "High Precision Diagnostics and Future Possibilities"
- D. Habs, GSI, West Germany, "Electron and Laser Cooling"
- J.M. Paterson, SLAC, "Final Focus Test Beam"
- T. Wangler, LANL, "High Current Linacs"

5. Two symposia will be presented in Washington by the Topical Group on Fundamental Constants and Precise Tests of Physical Laws. The first, chaired by B. Cabrera, will consist of speakers: Yurke, Moseley, Greene and Feldman. The second, chaired by R. Ritter, will consist of speakers: Gabrielse, Turneaure, Williams and Drever. Titles and times will appear in the forthcoming April Bulletin of the APS and the Topical Group's newsletter.

6. An additional symposium with the title NIST Precision Measurements Grants Program, will be chaired by B. Taylor. Talks are:

- J.E. Faller, JILA, "Precision experiments in gravity"
- T. W. Haensch, U. Munich, "Precision spectroscopy of hydrogen"
- R.S. vanDyck, Jr., U. Washington, "Precision measurements using mass-ratio spectroscopy in a Penning trap"
- L.R. Hunter, Amherst College, "New limits on the electric-dipole moment of the electron"

For a listing of contributed papers and other invited papers, see the forthcoming April issue of the Bulletin of the APS.

V. SOME FUTURE MEETINGS OF INTEREST TO DAMOP MEMBERS

(a partial list):

IQEC '90. The seventeenth International Quantum Electronics Conference (IQEC '90) will be held May 21-25, 1990 at the Anaheim Convention Center, Anaheim, CA in conjunction with CLEO '90. This conference, which was first held in 1959, is the major international forum for the discussion of all aspects of quantum electronics. The abstract deadline has passed. For more information, write to: CLEO/IQEC '90; Optical Society of America; 1816 Jefferson Place, N.W.; Washington, DC 20036.

50th Annual Physical Electronics Conference, NIST, Gaithersburg MD, June 11-13, 1990. This conference is sponsored by the APS Divisions of Condensed Matter Physics and AMO Physics and this year is being jointly hosted by the University of Maryland and the National Institute of Standards and Technology. The organizing committee consists of: D.R. Hamann (AT&T Bell Labs), General Chairman; R.L. Stockbauer, Treasurer; R.R. Cavanagh and E.D. Williams, Local Co-Chairpersons; P.H. Citrin, P.J. Estrup, S.C. Fain, Jr., P.J. Feibelman, R. Gomer and E.W. Plummer. The conference is concerned with the fundamental physics and chemistry of solid surfaces and interfaces, emphasizing the description of surface and interface properties at a fundamental atomic and molecular level. Those wishing to receive the Conference Brochure may contact: Linda Johnson, Conference Registrar, B248 Chemistry, NIST, Gaithersburg, MD 20899, (301) 975-2533, FAX 301-975-3038. For other conference information, please contact: R.R. Cavanagh, B248 Chemistry, NIST, Gaithersburg, MD 20899, (301) 975-2368, FAX 301-975-3038, electronic mail CAVANAGH@NBSENH. E.D. Williams, Dept. of Physics and Astronomy, University of MD, College Park, MD 20742-4111, (301) 454-7204, FAX 301-454-0382.

15th International Conference on X-Ray and Inner-Shell Processes, Oak Ridge National Laboratory, Univ. of Tennessee-Knoxville, Georgia State Univ. in Atlanta, 9-13 July, 1990. Conference Chair is M. O. Krause (ORNL) and Co-Chair is S. T. Manson (Georgia State University). This conference will serve as a forum for discussing fundamental issues in the field of x-ray and inner-shell processes and the principles of their applications in various disciplines of science and technology. For more information write M.O. Krause at ORNL.

12th International Conference on Atomic Physics, Univ. of Michigan, Ann Arbor, 29 July - 3 August 1990. Conference Chair is A. Rich (Michigan) and Co-Chair is R.R. Lewis (Michigan). This conference on fundamental problems in atomic physics is by invitation only. If you are interested in more information about this conference, contact Ms. Larisa Zlatic', ICAP-12 Secretary, Dept. of Physics, Univ. of Michigan, Ann Arbor, MI 48109-1120, (313) 764-8459, FAX (313) 763-9694.

Gordon Conference on the Dynamics of Simple (Few Body) Systems in Chemistry and Physics, Proctor Academy, NH, August 12-17, 1990. This multidisciplinary conference brings together scientists interested in scattering and bound states involving electrons, atoms, molecules, clusters, nuclei, and/or nucleons. Organizers: W.P. Reinhardt (U. Pennsylvania) and J. Friar (LANL). For information contact Reinhardt at Dept. of Chemistry, U. of Penna., Phila., PA 19104-6323.

The Sixth Interdisciplinary Laser Science Conference (ILS-VI) is scheduled to be held in Minneapolis, MN on September 18-22, 1990, at the Minneapolis Marriott. The deadline date for submission of abstracts is 11 May 1990. Further information will appear in the APS Bulletin.

Forty-third Gaseous Electronics Conference is scheduled to be held in Urbana-Champaign, IL on 16-19 October 1990, hosted by the University of Illinois. The meeting is a Topical Conference of the APS and is sponsored by the Division of Atomic, Molecular and Optical Physics. The Gaseous Electronics Conference invites papers on basic phenomena and plasma processes in ionized gases and on the relevant theory and measurement of basic atomic and molecular collisional processes. Topics selected for special emphasis in 1990 include: Lamp modeling and diagnostics; lasers; physics of high power devices; plasma chemistry, plasma processing, discharge physics and surface interactions; novel experimental techniques for and fundamental aspects of electron and heavy particle collision physics. Abstracts on these and related topics are solicited. The abstracts must conform to the formatting rules of the APS and will be published in the Bulletin. The abstract must briefly and accurately describe the scientific work to be presented at the conference. The deadline date for receipt of long papers (20 min) is July 2, 1990; that for regular papers (12 min) or a poster is July 14, 1990. Inquiries should be sent to: Joseph T. Verdeyen, Secretary; Gaseous Electronics Conference; Department of Electrical and Computer Engineering; University of Illinois; 1406 W. Green Street; Urbana, IL 61801.

The **1990 Annual Meeting of the Optical Society of America** will be held in Boston on November 4-9, 1990 as a component of OPTCON'90.

Eleventh International Conference on the Application of Accelerators in Research and Industry will be held November 5-8, 1990 at the University of North Texas, Denton, TX. For more information write to: J. L. Duggan; University of North Texas; Department of Physics; P.O. Box 5368; Denton, TX 76203.

VI. Announcements:

1. DOE FUTURE RESEARCH OPPORTUNITIES WORKSHOP II SCHEDULED

The second in a series of workshops, Future Opportunities in Atomic, Molecular and Optical Physics, has been tentatively scheduled for March 26 and 27 and will be held in the Auditorium of the Germantown complex of the Department of Energy in Germantown, MD. The Workshop is being sponsored by the Division of Chemical Sciences of the Department's Office of Energy Research.

The series of workshops is designed to obtain the views of the scientific community in documenting the most challenging research opportunities foreseen for the field in the next decade. This second workshop will consider panel reports on four different topics: (1) Atomic Structure and Spectroscopy, (2) Atomic Processes in Plasmas, (3) Quantum and Non-Linear Optics and (4) Atomic Collisions and Surfaces.

Any scientist wishing to attend the Workshop is requested to write: Physics Workshop; U.S. Department of Energy; ERD141, GTN; Washington, DC 20545 **by March 1**. (Due to the limited staff available, telephone inquiries on the workshop cannot be accepted.) The letter is to designate first and second choices among the four panels. Seating capacity is limited and inquiries will be honored on a first received basis. Attendees will have to make their own travel and housing arrangements. No funds are available to assist with expenses. Individuals registering an interest in attending will be sent additional details by March 15.

This workshop is endorsed by DAMOP and the National Research Council Committee on Atomic, Molecular and Optical Science (CAMOS). There will be a public discussion and chance for comments Wednesday evening, May 23 at the end of the Monterey DAMOP meeting. The activities of the APS Physics Planning Committee (see below) will also be discussed on Wednesday evening.

2. In addition to the DOE long-range planning effort just mentioned, the APS has

established the Physics Planning Committee (PPC), currently under the chairmanship of APS President-Elect Eugen Merzbacher with three distinguished Vice-Chairs: W. Brinkman, L. Lederman and A. Sessler. It is undertaking an update of the "Brinkman Report" with the compilation of a "loose-leaf notebook" which will contain input from various subgroups assessing future opportunities in their subfields. Division members who wish to contribute material for this loose-leaf notebook should send it to Eugen Merzbacher at the University of North Carolina, Chapel-Hill, NC.

3. NEW APS FELLOWS NAMED:

Congratulations go to the following APS members nominated through our Divisional Fellowship Committee who have been named Fellows of the American Physical Society by action of the APS Council:

John William Cooper	Philip Howard Buchsbaum
Bengt Edlen	Tu-nan Chang
Kate Kirby	Philip C. Cosby
Ara Chutjian	John Allen Tanis
Chris H. Greene	William Eric Baylis
Hanspeter Helm	Samuel L. McCall
Frank S. Tomkins	

Certificates bearing the citation for each new Fellow will be awarded by APS President-elect Eugen Merzbacher at the DAMOP Annual Meeting banquet in Monterey in May.

4. Peter Smith recently completed a SURVEY OF ASTRONOMERS that attempted to identify their needs for new and/or improved atomic and molecular data. Their responses, which frequently include discussion of the motivation for the research, have been collected and bound. Division members who are interested in making measurements relevant to state-of-the-art astrophysics are urged to obtain a copy of the survey from: Peter L. Smith, Harvard Smithsonian Center for Astrophysics, 60 Garden Street, MS-50, Cambridge, MA 02138.

5. Suggestions for speakers and/or symposia for the 1991 Annual DAMOP Meeting should be sent to the new Program Committee chair, Tony Starace before the start of the 1990 Monterey meeting for consideration by the Committee. Suggestions are welcome from any member of the Division.

DON'T FORGET TO VOTE IN THE DAMOP ELECTION!!