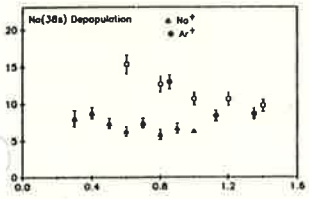

What's This? Answer on Page 6.

Newsletter of the
DIVISION OF ATOMIC, MOLECULAR, & OPTICAL PHYSICS
of the
American Physical Society
February 1992

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The DAMOP Newsletter is prepared by University Printing at Tulane University.

Inside . . .

FAMOS Town Meeting

As discussed in the last newsletter, the Committee on Atomic, Molecular, and Optical Sciences (CAMOS) of the National Research Council has formed a panel on future opportunities in Atomic, Molecular, and Optical Sciences (FAMOS) in order to conduct an assessment of AMO sciences in the U.S. The study is in response to requests to the NRC by agencies which traditionally fund AMO science. They are seeing very strong pressures that priorities be made across and within disciplines of science. The charges to the panel are articulated in the previous newsletter, and it is not necessary to repeat them here. However, since one of the important and controversial charges involves the setting of priorities within our discipline, it is essential that the community be intimately involved in the process.

The FAMOS panel is therefore seeking input from all AMO scientists, and one forum for this will be an open meeting at the 1992 DAMOP meeting to discuss the panel's charge and progress and to seek input from the community. The meeting will be held at 5 p.m. on May 20th in a room to be announced. All DAMOP members are encouarged to attend.

Question to be addressed include:

What are the greatest difficulties facing researchers in AMO science today?

What are the most important scientific developments in AMO science since 1980?

How can AMO science contribute to national needs?

What will be the most important AMO research areas in the next decade?

What new technologies promise major advances in AMO science in the next few years?

What is the most important thing the FAMOS report could do to improve AMO science?

Elections

We shall elect a larger slate of new officers this year due to changes in our Bylaws. The positions and candidates are:

Chair Elect. This person serves as Chair of the Program Committee for DAMOP in Washington, DC, 1993, and then be comes Chair of DAMOP.

Armstrong, Lloyd. B.S., 1962, M.I.T., Ph.D., 1966, University of California, Berkeley. Postdoctoral Physicist, 1965-66, Lawrence Radiation Laboratory, Berkeley. Senior Physicist, 1967-68, Westinghouse Research Center, Pittsburgh. Assistant Professor, 1969-1973; Associate Professor, 1973-1977; Professor, 1977-present; Chair, Department of Physics and Astronomy, 1985-87. Dean of the School of Arts and Sciences, 1987-present, Johns Hopkins University. Maitre de Recherche Associe, CNRS, Orsay, Francie, 1972-73. Visiting Fellow, JILA, 1978-79. Program Officer for AMP Physics and Theoretical Physics, NSF, 1981-83. Fellow, APS. NRC Committee on Atomic and Molecular Sciences, 1984-89. Vice Chair, 1984-85; Chair, 1985-88; Past Chair, 1988-89; Chair Panel on Facilities, 1984-85; Chair Panel on Theoretical Atomic and Molecular Sciences, 1985-85; Panel on Future Opportunities in Atomic, Molecular and Optical Sciences, 1991-1994. NRC Committee on Recommendations for the U.S. Army Basic Scientific Research, 1984-87. NRC Panel for the Joint Institute for Laboratory Astrophysics, 1985-present; Chair, 1989-present. NRC Panel for the National Measurement Laboratory of NIST, 1989. NSF Advisory Committee for Physics, 1985-88. Committee of Visitors, Physics division, NSF, 1989. NRC Board of Physics and AStronomy, 1989-present. Chair, Panel on Quantum and Nonlinear Optics, DoE , 1991. DEAP Program Committee, 1976. DEAP Nominating Committee, 1983-84. Board of Editors, PRA, 1984-90. Nominating

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Elections

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Committee for the Herbert P. Broida Prize, 1987-88. Nominating Committee for the Davisson-Germer Prize, 1985, 1987, 1989, Chair, 1989. APS Panel on Public Affairs, 1986-88.

Research Interests: Multiphoton processes involving intense fields, especially multiphoton ionization; chaos; relativistic effects in atomic structure; many-body effects in atomic structure; group theory.

Gallagher, Thomas F. A.B., 1966, Williams College, A.M., 1968, Ph.D., 1971, Harvard University. Research Associate, 1971-72, University of Utah. Postdoctoral Physicist, 1972-73. Physicist, 1973-79. Senior Physicist, 1979-83. Program Manager, 1983-84, SRI International. Professor, 1984-91, Jesse W. Beams Professor, 1991-present, University of Virginia. Fellow, 1980, American Physical Society. Member, Optical Society of America. Executive Committee, DEAP, 1981-84. Committee on Line Spectra of the Elements, 1981-83. General Committee, ICPEAC, 1985-88. Associate Editor, Optics Letters, 1985-89. Fellowship Committee, DAMOP, 1985-86, 1988-91. Program Committee, Topical Conference on Atomic Processes in Plasmas, 1989. Divisional Associate Editor, Physical Review Letters, 1988-91. Program Committee, DAMOP, 1989-.

Research Interests: Rydberg states of atoms and diatomic molecules, atoms in strong fields, autoionization, spectroscopic techniques.

Vice Chair. This is a new position this year. The person becomes Chair-elect next year and we elect a new Vice Chair.

Lin, Chun C. B.S., 1951, M.A., 1952, University of California at Berkeley, Ph.D., 1955, Harvard University. Assistant Professor to Professor of Physics, University of Oklahoma, 1955-68. Professor of Physics, University of Wisconsin, 1968-present. John and Abigail Van Vleck Professor of Physics, University of Wisconsin, 1991-present. Fellow, American Physical Society.

APS and DAMOP-related Activities: Editorial Board, Physical Review A, 1990-92. Secretary-Treasurer, APS Division of Electron and Atomic Physics, 1974-77. Chairman, Gaseous Electronics Conference, 1990-92. Secretary, Gaseous Electronics Conference, 1973.

Membership on APS Committees: Chairman, Committee on Membership, 1992-93. Earl Plyler Prize Committee, 1979-80. POPA Subcommittee on International Scientific Affairs, 1984-89. Special Task Force on the Future of the APS China Program, 1985-86. American Coordinating Committee on the Joint APS-Chinese Academy of Science Visiting Scholars Program, 1987-91. APS Division of Electron and Atomic Physics Program Committee, 1977-78.

National Review Board: Board of Assessment of the National Institute of Standards and Technology, Panel on Laboratory Astrophysics, 1985-92.

Consulting Activities: Consultant, Sandia Laboratories, 1976-81. Consultant and University Advisor, Texas Instruments Inc., 1960-68.

Research Interests: Experimental and theoretical atomic and molecular collisions and radiation processes; collisional excitation and ionization of atoms and molecules; electron-impact excitation intoand out of metastable levels using laser techniques; theory of electronic energy structure and optical properties of impurity atoms in ionic crystals.

Compton, Robert N. B.S., 1960, Berea College, M.S., 1962, University of Florida, Ph.D., 1965, The University of Tennessee. Physicist, 1965-75. Senior Scientist, 1975-86. Corporate Fellow, 1986-present, Oak Ridge National Laboratory. Visiting Scientist, FOM-Institute, Amsterdam, 1979. Professor of Physics, 1970-75; Professor of Chemistry, 1986-present, The University of Tennessee. Adjunct Professor of Physics, 1985-present, Vanderbilt University. Co-founder, Comstock, Inc., 1978. Executive Committee of DAMOP, 1984-87. Panel on Public Affairs of APS (POPA), 1989-92. Secretary of local committee ICPEAC, 1981. Member of organizing committees for "Laser Technique for Extreme Ultraviolet Spectroscopy," 1982-84. III-IV ICOMP, Co-chair, Gordon Research Conference on Multiphoton Processes, 1992. Fellow, American Physical Society. Member, Optical Society of America, American Chemical Society, American Society for Mass Spectrometry. Recipient, Jesse W. Beams Medal, 1991.

Research Interests: The physics of negative ions, reactions involving highly excited Rydberg atoms with molecules, electron atom/molecule scattering, angle-resolved photoelectron spectroscopy, multiphoton ionization of molecular beams, nonlinear optics, the physics of atomic and molecular clusters (including C_{60}, etc.).

Executive Committee. This body works with the Chair of DAMOP to address issues relevant to our division.

Three-Year Term (elect two)

Cooke, William E. B.S., 1972, College of William and Mary, Ph.D., 1976, M.I.T. Visiting Scientist, SRI International, 1976-79. Assistant Professor, University of Southern California, 1978-1983. Associate Professor, U.S.C., 1983-88. Professor,

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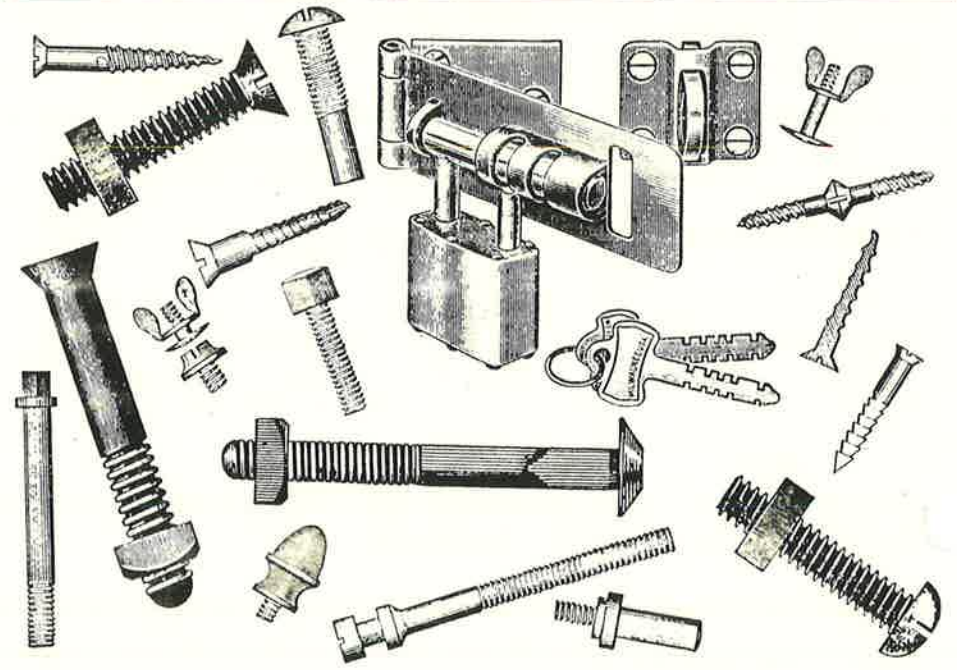

Elections

Continued from Page 2

S.C., 1988-present. Fellow, American nysical Society. Member, Optical Society of America. Alexander von Humboldt Senior U.S. Scientist Award, 1984. Co-Chair, Topical Meeting on "Multiple Excitations of Atoms," 1986. Co-Chair, Topical Meeting on "High Energy Density Physics with Subpicosecond Lasers," 1989. Chair, Atomic Physics, Gordon Conference, 1991. DEAP Local Organizing Committee, 1980. DEAP Program Committee, 1981-83. DEAP Publications Committee, 1983. DAMOP Executive Committee, 1990. DAMOP Fellowship Committee, 1992. OSA Technical Council, 1983-85; Executive Committee, OSA Technical Council, 1985. NRC Committee on Line Spectra of the Elements - Atomic Spectroscopy, 1987-90. Chair, APS Committee on Education, 1992. Project Specialist, Chinese University Development Project, 1984.

Research Interests: Rydberg state phenomena; spectroscopy of autoionizing Rydberg states; high intensity laser physics.

Lundeen, Stephen R. B.S., 1969, Trinity College (CT), M.A., 1970, Ph.D., 1975, Harvard University. Assistant Professor, Harvard University, 1975-80; Associate Professor, Harvard University, 1980-83. Allston Burr Senior Tutor, Harvard University, 1979-83. Associate Professor, University of Notre Dame, 1983-88. Professor of Physics, University of Notre Dame, 1988-present. Visiting Fellow of JILA, University of Colorado, 1988-89. Fellow, APS, 1990. Chairman, 1981 Gordon Conference on Atomic Physics. Member, DAMOP Program Committee, 1984, 1990-present. Member, DAMOP Publications Committee, 1990-present. Member, 1989 NSF Presidential Young Investigators Selection Panel.

Research Interests: Laser/microwave spectroscopy of high angular momentum Rydberg states of atoms and molecules, precision fine structure measurements in one and twoelectron atoms, collisional interactions of fast beams.

reene, Chris H. B.S., 1976, University Nebraska, M.S., 1977, Ph.D., 1980, University of Chicago. Research Associate, Stanford University Chemistry Department, 1980-81. Visiting Research Fellow, Universite de Paris-Sud, Laboratoire de Photophysique Moleculaire, 1980-81. Assistant Professor of Physics, 1981-84; Associate Professor of Physics, 1984-87, Professor of Physics, 1987-88, Louisiana State University. Professor of Physics, 1989-present, University of Colorado, Boulder. Fellow, Joint Institute for Laboratory Astrophysics, 1989-present. Member, Division of Atomic, Molecular and Optical Physics, American Physical Society. Member, Organizing Committee, International Conference on the Physics of Electronic and Atomic Collisions, 1985-89. Member, Program Committee, Gordon Conference on Atomic Physics, 1987 and 1989. Member, Sigma Xi. Phi Kappa Phi Award for Research in the Natural and Physical Sciences, 1984. Alfred P. Sloan Foundation Fellow, 1983-87. NSF Presidential Young Investigator Award, 1984-89. Elected Fellow, American Physical Society, 1989. APS I. I. Rabi Prize, 1991.

Research Interests: Nonperturbative correlation effects in few-electron atoms and molecules, strong field effects on Rydberg atoms, theoretical description of complex atomic spectra.

Saxon, Roberta P. B.S., 1968, Cornell University, Ph.D., 1971, University of Chicago. Postdoctoral Fellow, Argonne National Laboratory, 1972-73. Research Associate, University of Washington, 1973-74. Postdoctoral Fellow, 1974-75. Chemical Physicist, 1975-79. Senior Chamical Physicist, 1979-88. Program Manager, 1988-present, SRI International. Fellow, APS. Member, American Chemical Society. NRC Committee on Atomic, Molecular, and Optical Science (CAMOS), 1989-92. DAMOP Program Committee, 1977-79. Nominating Committee, 1986. Site Selection Committee, 1987. Executive Committee (appointed), 1988-89. Visiting Scientist, University of Bielefeld, 1980. Visiting Scientist, NATO Fellowship. FOM Amsterdam, 1984.

Research Interests: Theoretical calculations of energies and properties of small molecules; photodissociation; multiphoton processes; molecular Rydberg states; fine-structure changing collisions; reactive, inelastic, and elastic collisions; ion-surface scattering; electronic transition probabilities.

Two-Year Term (elect one)

Li-Scholz, Angela. B.A., 1956, Manhattanville College, M.S., 1957, Ph.D., 1963, New York University. Junior Research Associate, Brookhaven National Laboratory, 1960-63. Research Staff Physicist, Yale University, 1963-65, 1966-67. Assistant Professor, CCNY, 1965-66. Research Associate, University of Pennsylvania, 1967-70. Research Associate, Rensselaer Polytechnic Institute, 1970-72. Associate Professor, SUNY/Empire State College, 1972-77. Professor, SUNY/Empire State College, 1977-present. NSF Fellow, General Electric Research & Development Center, 1978-79. Research Professor, SUNY/Albany, 1980-present. Editor, Atomic Data & Nuclear Data Tables, 1981-present.

Research Interests: Inner-shell ionization; ion beam analysis of materials.

Lucatorto, Thomas B. B.S., 1960, City College of New York, M.A., 1964, Ph.D., 1968, Columbia University (NY). Postdoctoral Research Assistant, Columbia University (NY), 1968-69. Staff Scientist, NIST, 1970-present. Fellow, APS. Member, Program Committee for the series "International Symposia on Resonance Ionization Spectroscopy and Its Applications," 1984-present. Chairman, OSA Topical Meeting on Laser Techniques in the Extreme Ultraviolet, 1984. Chairman, Local Organizing Committee for the Sixteenth International Conference on the Physics of Electronic and Atomic Collisions, 1989, and Member of the General Committee, 1985-90.

Research Interests: Multiphoton effects in atoms, atomic structure and autoionization, xuv optics.

One-Year Term (elect one)

Delos, John B. B.S. Chemistry, 1965, University of Michigan, Ph.D., 1970, M.I.T. Postdoctoral Research Associate, University of British Columbia, 1970-1. Assistant, Associate, Full Professor of Physics, College of William and Mary, 1971-present. Visiting Scientist, University of Alberta, 1975. Visiting Scientist, FOM Institute for Atomic and Molecular Physics, 1979-80. Consultant, Naval Surface Weapons Center, 1984. JILA Visiting Fellow, 1985-6. Visiting Scientist, Institute for Theoretical Atomic and Molecular Physics (Harvard-Smithsonian Center for Astrophysics), 1992-present. Program Committee, DAMOP, 1974-6 and 1988-90. Fellow, APS. Outstanding Scientist of Virginia, 1990.

Research Interests: Order and chaos in classical and quantum systems; atoms

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Elections

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in strong fields; atomic and molecular collisions.

Statement: I believe that the most challenging issue facing DAMOP is the resources and support available for research in atomic, molecular and optical physics. There must be a balance between large centralized facilities and diverse individual research efforts. Those who are responsible for allocating funds, from program managers to congressmen, need our help in establishing priorities for funding. We need to collectively affirm that the highest priority must be the support of diversity—small individual projects that go in many directions.

Helm, Hanspeter. Ph.D., 1973, University of Innsbruck. Assistant Physicist, 1973-75. Postdoctoral Fellow, 1975-76, Australian National University. Assistant Professor, University of Innsbruck, 1977-78. Physicist, 1979-1983, Senior Physicist, 1984-present, Molecular Physics Laboratory, SRI International. Visiting Scientist, Service de Physique Atomique, Saclay, 1974, FOM-Institut Amsterdam, 1984, 1985, University of Arhus, 1986, 1988, 1991. General Committee, ICPEAC, 1987-91. Fellow, APS, 1990.

Research Interests: Photodissociation and photoionization of molecules and molecular ions; dynamics of highly exicited states and of molecules in strong laser fields.

F. M. Pipkin, Physicist, Dies

(Reprinted in part from the ***Harvard Gazette,*** January 10, 1992)

Francis Marion Pipkin, professor of physics at Harvard, died Sunday after a brief illness. He was 66.

Born in Marianna, AR, [Frank] Pipkin received his B.A. from the University of Iowa in 1950 and his Ph.D. from Princeton in 1954. He joined the Harvard faculty in 1957.

As Frank B. Baird, Jr. Professor of Science, he taught and conducted research in both low- and high-energy physics. He was associate dean of the Faculty of Harvard and Radcliffe colleges from 1974 to 1977, [and] was chairman of the Physics Department

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23rd Annual Meeting of the Division of Atomic, Molecular, and Optical Physics

Chicago, Illinois
20-22 May 1992

The 23rd Annual Meeting of the Division of Atomic, Molecular, and Optical Physics (DAMOP) will be held in Chicago, IL, on 20-22 May 1992. These dates are the Wednesday through Friday immediately preceding the Memorial Day weekend. The host institution is Argonne National Laboratory, and the local organizing committee is chaired by H. Gordon Berry. Partial support for the meeting is being provided by The University of Chicago Board of Governors for Argonne National Laboratory, by Argonne's Division of Educational Programs, by the Associate Laboratory Director for Energy, Environmental, and Biological Research, and by the Associate Laboratory Director for Physical Research.

The scientific program will consist of a ceremonial session with a plenary talk given by Prof. Arthur Schawlow of Stanford University, 12 symposia, 10 sessions of contributed oral papers, and three sessions of contributed poster papers. The invited symposia include the following (speakers are listed with session organizers in parentheses):

1. *Femtosecond Dynamics* (C. Hayden): R. Walkup, R. Schoenlein, G. Gerber, and H. Rabitz.

2. *Plasma Processing and Associated Atomic Processes* DAMOP, Gaseous Electronics Conference, and the APS Committee on Applications of Physics): A. Gallagher, L. W. Anderson, R. A. Gottscho, and D. B. Graves.

3. *Physics of Two-electron Systems* (T. Gallagher and A. F. Starace): W. Sandner, N. B. Mansour, H. R. Sadeghpour, and J. S. Briggs.

4. *Measurement and Cavity QED* (J. E. Bayfield): R. G. Hulet, P. Zoller, S. Haroche, and P. Meystre.

5. *Arom Interferometry* (M. Raymer and D.Pritchard): F. Riehle, M. Kasevich, C. Ekstrom, and J. Thomas.

6. *Atomic Inner-shell Phenomema* (B. Crasemann): C. D. Caldwell, U. Becker, T. Aberg, M. H. Chen, and R. H. Pratt.

7. *Coherent Control of Physics and Chemistry* (S. T. Pratt): S. A. Rice, P. W. Brumer, W. S. Warren, and D. Elliott.

8. *At the Frontiers of Technology in Coherent Photon Generation* (W. C. Stwalley): T. Mossberg, G. Morou, M. Haase, and R. J. Saykally.

9. *Particle-surface Interactions* (F. B. Dunning): J. Burgdorfer, B. Cooper, F. Meyer, and G. K. Walters.

10. *High Field Effects* (R. R. Freeman): R. Shakeshaft, P. Bucksbaum, K. Kulander, and J. Kmetec.

11. *H_7 Excited States: New Perspectives from High Resolution Experiments* (S. R. Lundeen): E. F. McCormack, P. W. Arcuni, W. L. Glab, and J. B. A. Mitchell.

12. *Advances in Electron Scattering* (R. A. Phaneuf): D. H. Madison, N. L. S. Martin, M. A. Morrison, and A. Chutjian.

All scientific sessions and scheduled events will be held at the Westin Hotel, 909 North Michigan Avenue, on Chicago's famed Magnificent Mile. The hotel is exceptionally well-located (next to the Hancock Tower) and provides convenient access to the best that Chicago has to offer, including fine restaurants, museums, art galleries, the symphony and theatre, night life, shopping, professional sports, and the Lake Michigan beaches. An orientation session for accompanying persons will be held early in the meeting and literature will be provided to acquaint participants and their familes with the complete array of sightseeing possibilities.

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DAMOP Annual Meeting

Continued from Page 4

Registration

The registration fee for the conference will cover all costs, including the reception, coffee breaks, and the banquet dinner. The fees are as follows: Before 1 April: Members - $150; Non-members - $225; Students - $50. After 1 April: Members - $175; Non-members - $265; Students - $50. A preregistration form accompanies this announcement.

Contributed Papers

Abstracts in the areas of atomic, molecular, and optical physics may be submitted for either oral or poster presentation. Each oral presentation will be alloted 10 minutes for the main presentation and two minutes for discussion. Each poster presentation will have a 4′ x 8′ poster board. All abstracts must be camera-ready and must conform to the APS guidelines, which are given in *BAPS,* 36, 1866 (1991). Please note on one corner of the abstract whether you prefer an oral or poster session.

The abstract deadline is now past; however, post-deadline abstracts (one original and two duplicates) may be sent to Patricia Dehmer, Argonne National Laboratory Building 203, Argonne, IL 60439, until **1 May.** Post-deadline abstracts will not be included in the regular program that is published in *BAPS* but will be included in the supplementary program if space permits.

Accommodations

Approximately 300 rooms have been reserved at the Westin Hotel for meeting participants. Unusually attractive room rates have been obtained for our meeting. Single rooms are $82 plus tax/night and double room are $92 plus tax/night. **You must make reservations before 28 April** in order to obtain these conference rates. Write directly to the hotel to make reservations. A limited amount of financial assistance for students attending the meeting is being provided by Argonne's Division of Educational Programs. Student wishing to apply for assistance should contact H. Gordon Berry, Physics Division, Argonne National Laboratory, Argonne, IL 60439 by 1 April.

Travel

Chicago is easily reached by air via either O'Hare International Airport or Midway Airport. The official airline for the conference is United Airlines, which is offering special reduced fares for conference attendees. These fares will be applicable for travel between 17 May and 24 May. To take advantage of these fares, you (or a travel agent) should call United at 1-800-521-4041 and refer to meeting account number 522AE. The Chicago Transit Authority (CTA) provides convenient transportation around the city. CTA trains operate between O'Hare Airport and downtown (approximate time: 40 minutes). The fare is $1.50. The CTA station at O'Hare is located under terminal #4. It may be reached by motorized pedestrian walkways leading from the baggage claim areas of each terminal. Exit from the train at the Chicago Avenue/State Street station for the hotel (located at the corner of Michigan Avenue and Delaware Place), which is three blocks east and three blocks north of the CTA station. Alternatively, you may request a bus transfer (.30¢ extra) at the CTA O'Hare station and take the CTA to the Washington/Dearborn station in the Loop. Then walk one block east to State Street and board either the #145, #146, or #151 buses northbound. Each stops in front of the hotel.

Continental Air Transport provides bus service from O'Hare (and Midway to the Westin (46-60 minutes travel time) via the "Gold Coast" route departing from the lower level baggage claim areas every half hour between 6 a.m. and 1:30 p.m. (9:30 p.m. at Midway). Tickets may be purchased at the Continental desks located near doors 1E, 2D, and 3E in the United, Northwest, and American Airlines terminals at O'Hare, respectively. Passengers arriving at Midway Airport may purchase tickets at the Continental desk located in the baggage claim area at the south end of the terminal. Fares are $12.50 one way and $22 round trip from O'Hare; $9.50 one way and $16.75 round trip from Midway. (A discount coupon will be included with the confirmation for those who register for the meeting before 1 April.)

Taxis are located on the lower level of each terminal at O'Hare. Fares are $18-$22; share a cab with two friends and the fare is $12 per person.

Further Information

For additional information, please contact H. G. Berry, Physics Division, Argonne National Laboratory, Argonne, IL 60439, or by electronic mail: DAMP@ANLPHY (BITNET) or DAMOP@ANL.GOV. (Internet).

Call for Invited Speakers for 1993

The Program Committee for the 1993 DAMOP Meeting in Reno is putting together lists of symposia and speakers. If you wish to suggest a topic or a speaker, please contact a member of the program committee (listed in the last Newsletter), before March 31. A brief statement in support of your nomination would be helpful. Suggestions are encouraged, and may be sent to the Program chair, David Wineland at NIST (his address is on the front of this Newsletter).

Conferences

NATO Advanced Study Institute on "New Directions in Research with Third Generation Soft X-Ray Synchrotron Radiation Sources" June 28—July 10, 1992, in Maratea, Italy. Contact Fred Schlachter at Lawrence Berkeley Lab.

Los Alamos Summer School in AMO Physics for Undergraduate and Beginning Graduate Students June 8—July 31, 1992. Contact Lee Collins at Los Alamos.

Pipkin

Continued from Page 4

from 1985 to 1988.

He was active in the planning, construction, and operation of the Cambridge Electron Accelerator in the 1960s and early '70s. He also worked on particle physics experiments at the Femi National Accelerator Laboratory in Batavia, IL, and most recently at the Synchrotron Laboratory at Cornell.

Frank served our community in various ways, including as Chair of DAMOP in 1974 and Chair of CAMOS in the mid-1980s. He will be missed by us.

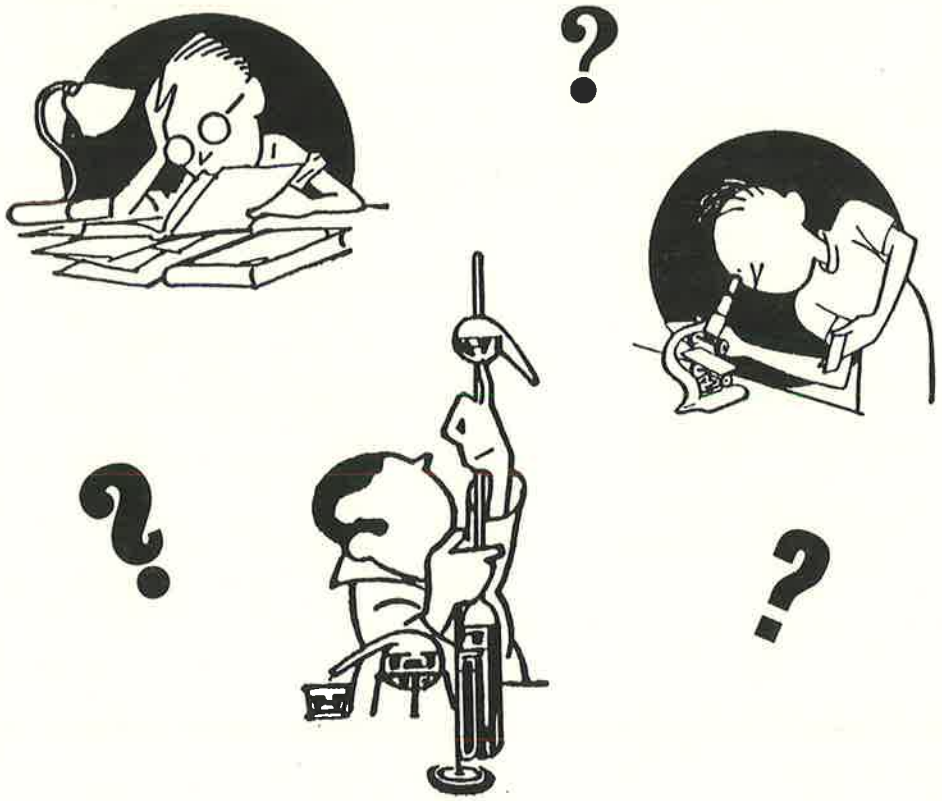
Fellowship Nominations

All Division Members are reminded to submit nominations of colleagues for APS Fellowship to Ms. Maximilla Cassell at the American Physical Society, 335 E. 45th Street, New York, NY 10017 **by April 24, 1992.** To ensure that nominations reach the DAMOP Fellowsip Committee in a timely manner, please specify explicitly that they be considered by DAMOP. Nomination forms may be obtained by calling APS at (212) 682-7341. If you have questions regarding nominees or procedures, contact the chair of the DAMOP Fellowship Committee, Kate Kirby at (617) 495-7237, or bitnet KKIRBY@CFAAMP.

AMO Physics for the Next Generation

What should we teach the next generation about AMO physics? Authors of introductory texts are seldom experts on AMO physics. To aid authors in choosing what to include, Jim McGuire in cooperation with John Ridgen, Director of Physics Program at AIP, is compiling a list of topics from AMO physics in four ranked categories. In his "Lectures on Physics," Feynman asks if, in some cataclysm, all scientific knowledge were destroyed, and only one sentence could be passed on, what would it be? His answer is, "the atomic hypothesis (or atomic fact, or whatever you wish to call it) that all things are made of atoms—little particles that move around in perpetual motion, attracting each other when they are a little distance apart, but repelling upon being squeezed into one another." If AMO physics is important, perhaps we should think about how to tell the next generation about it.

If you are interested in participating in this overview, please contact Jim McGuire at Tulane.



Request for AMO Physics Problems

The American Physical Society and the American Association of Physics Teachers, with support from the research directorates of NSF, have launched a project to collect and publish new physics problems for use in teaching undergraduate physics courses beyond the beginning course. The idea is to have these problems introduce some of the excitement of current research into the core courses of the undergraduate physics curriculum. The problems should be interesting enough to entice a busy teacher to introduce the material into his/her course on, say, mechanics, electricity and magnetism, thermodynamics, quantum mechanics or modern physics, yet also be at a level accessible to the average undergraduate physics student. They should connect closely enough to recent or unusual research to convey to students the pleasures of doing physics. Problems that require that students analyze or interpret real data are encouraged.

Beginning early in 1992, one or two such problems will be published monthly in the "New Problems" section of the American Journal of Physics. Eventually, these will be compiled, published, and widely distributed, both to serve as a resource for teachers of undergraduate physics and to communicate physics in a way that will interest and reach professional physicists across a variety of specialties. Nuclear physics and Particles and Beams have already submitted problems.

For further information, please contact Charles H. Holbrow, Department of Physics and Astronomy, Colgate University, Hamilton, NY 13346, (315) 8824-7206, FAX: (315) 824-7831, CHOLBROW@COLGATEU.

Answer to "What's This?"

Cross sections for depopulation of high Rydberg atoms versus a reduced velocity in collisions with singly charged ions taken from Rolfes, Smith and MacAdam, Phys. Rev.A37,2378 (1988) for Na(36s) in collisions with relatively small Na+and Ar+ ions. "Small" Cl- ions, which act as heavy electrons, have also been used. These cross sections may be much greater than geometric.