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The American Physical Society

Division of Electron and Atomic Physics

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TO MEMBERS OF THE DEAP FROM PAT DEHMER

I. RESULTS OF DIVISIONAL COUNCILLOR ELECTION

Bernd Crasemann is the new DEAP Divisional Councillor, having won the largest election in DEAP history -- 648 ballots were cast, which is nearly twice the usual voter response. I would like to thank all those who participated in this election and congratulate the 113 Division members who returned their ballots directly to me after noticing that the APS inadvertently included an incorrect ballot return envelope in the Newsletter. The remainder of the ballots (535) were sent to Jack Harvey, Secretary-Treasurer of the Division of Nuclear Physics, who forwarded them to me for opening and counting at Argonne.

II. REPORT OF THE NOMINATING COMMITTEE

The Nominating Committee, appointed by Alex Dalgarno, consists of Norman Bardsley, Roy Champion (Chairperson), Walter Johnson, Ivan Sellin, and Henry Stroke. At a meeting on 4 November 1982, the Committee chose the following slate of candidates for the Spring elections:

Chairperson	Daniel Kleppner	(1 year)
Vice-Chairperson	Hugh Kelly	(1 year)
Secretary-Treasurer	Patricia Dehmer	(1 year)
Executive Committee Member	Robert Compton	(one to be
	Steven Manson	elected for a
	Norman Tolk	3-year term)

According to the Bylaws, additional nominations for any of the above offices will be recognized and included on the ballot if the nomination is supported in writing by five percent (124) of the members. Such nominations must reach me no later than 31 January 1983. In the absence of a contest for any given office, the nominee will be declared elected and will assume office at the close of the DEAP meeting in Boulder (5/83). Vitae of nominees for the contested office appear at the end of the Newsletter.

The remainder of the Executive Committee is as follows: Alex Dalgarno is currently Chairperson and will remain on the Committee for one more year as Most Recent Past Chairperson. Bernd Crasemann begins a four-year term as Divisional Councillor on 1 January 1983. The elected Committee Members are Winthrop Smith (until 5/83), Thomas Gallagher (until 5/84), and Richard Freeman (until 5/85). Serving one-year terms appointed by the Chairperson are David Golden and Ronald Henry (until 5/83).

III. ANNOUNCEMENT OF THE FOURTEENTH DEAP MEETING

The Fourteenth Annual Meeting of the Division of Electron and Atomic Physics will be hosted by the Joint Institute for Laboratory Astrophysics of the University of Colorado and the National Bureau of Standards, with the local organizing committee headed by David W. Norcross. The scientific sessions will be held on the campus of the University of Colorado and the program will consist of contributed papers, invited papers, and symposia. The symposia scheduled for this meeting are:

- (1) Radiative collisions (G. Bjorklund, organizer)
- (2) Exotic atoms (S. Lundeen, organizer)
- (3) The interaction of bound and continuum states (R. Hill, organizer)
- (4) Ultralow energy interactions between electrons and molecules (T. Rescigno, organizer)
- (5) Retrospective on quantum defect theory (D. Norcross, organizer).

More information on these symposia, including the names of the invited speakers, will be given in the next Newsletter.

Blocks of rooms have been reserved in the name of the meeting in the following motels:

Arapahoe Lodge, 2020 Arapahoe Avenue, Boulder, CO 80303, 303-449-7550
Boulder Inn, 770-28th Street, Boulder, CO 80303, 303-444-3800
Broker Inn, 555-30th Street, Boulder, CO 80303, 303-444-3330
Highlander Inn, 970-28th Street, Boulder, CO 80303, 303-443-7800
Holiday Inn, 800-28th Street, Boulder, CO 80303, 303-443-3322.

Current rates are in the range \$37-\$48 for singles and \$42-\$53 for doubles. Participants must make their own lodging reservations. Be sure to mention that you are attending the DEAP meeting when making your reservations.

In addition, a block of rooms has been reserved at the College Inn Conference Center. The College Inn has pleasant air-conditioned rooms with private baths, color televisions, and telephones in all rooms. Families are welcome. The current rate for room and board is \$134 for singles and \$97 per person for doubles. This includes lodging 22-24 May and all meals from dinner on 22 May through lunch on 25 May. The College Inn is not available on a room-only basis and no refund can be made for missed meals. Early arrivals and late departures must be approved in advance by the College Inn. The Arapahoe Lodge is quite convenient if accomodation outside the conference dates is required and is unavailable at the College Inn. To reserve space at the College Inn, please complete and return the form at the end of the Newsletter. You will receive an acknowledgment.

These blocks of rooms will be held until three weeks prior to the start of the meeting. All lodging facilities are located within a few blocks of the campus. Since limited parking is available on campus, participants are requested to leave their cars at the motels. Shuttle bus transportation will be available from the motels to the meeting location each day, starting on the evening of 22 May. The schedule for the shuttle bus will be posted in the lobby of each motel.

Participants arriving at Stapleton International Airport in Denver can proceed to Boulder by rental car, taxi (fare about \$40), or the Boulder Airporter Limousine Shuttle. The limousine leaves hourly from Door 10 in the baggage hall between 9:00 and 22:00 Sunday through Friday, and every two hours between 8:00 and 18:00 on Saturday. The fare is currently \$7.50, and the purchase of a ticket at the desk near Door 10 immediately upon arrival is suggested. On the basis of the anticipated arrival time given in the registration form, the local committee will provide the Airporter with advance notice of heavy traffic. The Airporter will stop at any of the conference motels. An up-to-date schedule for the Airporter will be provided with the pre-arrival package that will be mailed to all pre-registrants at least two weeks before the meeting. Maps and guides to Boulder and the campus also will be included in the pre-arrival package.

Registration will be held Sunday, 22 May between 17:00 and 20:00 in the Center Ballroom of the University Memorial Center (UMC) on campus, where there also will be an informal reception between 19:00 and 21:00. Registration will continue throughout the meeting in the lobby of the auditorium in Meunzinger Psychology (opposite the Duane Physics Laboratories and next to the stadium).

An excursion with a hike to a mountain lake will be organized for Sunday, 22 May. The hike will be strenuous, but nontechnical, and some snow may be encountered. Participants will be provided with a box lunch and will be asked to help defray the cost of the transportation. As the trip will start early on 22 May, participants should plan to arrive on 21 May.

On Monday evening, 23 May, there will be an open house with refreshments at the Joint Institute for Laboratory Astrophysics. An session featuring Program Officers from various funding agencies also is planned for that evening in the JILA auditorium. On Tuesday evening, 24 May, there will be a Western B-B-Q on the top of Flagstaff Mountain outside Boulder. On Wednesday evening, 25 May, there will be tour of the Coors brewery in Golden with a tasting party, late night snack, and juke-box dancing. This tour is limited to 120 persons. In addition, the second irregular DEAP tennis tournament will be held in conjunction with the meeting. Prizes will consist of fame and glory.

Given the location and the time of the year, the local committee would like to suggest combining attendance at the meeting with a family vacation. Boulder has a very pleasant downtown mall where strolling, dining, and enjoying entertainment by musicians, magicians, and jugglers has become a summer evening tradition. The front range boasts many attractions, including Rocky Mountain National Park, Colorado Springs, and colorful mountain towns such as Durango and Silverton. There are also many campgrounds, several within ten miles of Boulder.

The program for accompanying persons will include a get-acquainted coffee on Monday, 23 May, and several mini-van tours (with box lunches if needed). Depending on demand, these may include: Brainard Lake (walk-about for photographers and nature lovers); Rocky Mountain National Park (scenic tour of mountains and alpine meadows, with a chance to spot some elk); Georgetown (restored historic silver mining town); and Central City (historic gold mining town, narrow gauge train, opera house). Children may be included in these activities at your discretion.

Participants who plan to combine attendance at the meeting with a family vacation may obtain information from:

Denver and Colorado Convention and Visitors Bureau
225 West Colfax Avenue, Denver, CO 80202, 303-892-1112

Boulder Conference and Visitors Bureau
1001 Canyon Boulevard, Boulder, CO 80302, 303-442-1004

National Park Service, Rocky Mountain Regional Office
303-234-3857 (recorded message)

U.S. Forest Service, Rocky Mountain Regional Office
303-234-4745 (recorded message)

All those who plan to attend the meeting should return the registration form below, preferably by 22 April. For the purpose of determining the correct registration fee, "student" includes unemployed and retired persons. Advanced reservations for the hike in the Rocky Mountain National Park on 22 May is required, but reservations for the other social activities can be made at the meeting on a space-available basis. Advanced registration for all the events will be greatly appreciated.

IV. SUBMISSION OF ABSTRACTS FOR THE DEAP MEETING

Abstracts for contributed papers (one original and two duplicates) in standard Bulletin format should be sent to the Chairman of the Program Committee, Professor Daniel Kleppner, Department of Physics, 26-231, Massachusetts Institute of Technology, Cambridge, MA 02139. These abstracts must be received by Friday, 21 January 1983. Please mail your abstracts early or use an overnight postal delivery service to insure timely delivery. On Monday, 24 January, the abstracts will be sorted into sessions and forwarded to the American Physical Society for printing in the Bulletin of the American Physical Society. Please note on one corner of the abstract whether you prefer an oral session or a poster session. Both overhead and 35 mm slide projectors will be provided.

V. ATOMIC PHYSICS OPPORTUNITIES AT NSLS

At the end of August, a group of participants at the International Conference on X-Ray and Atomic Inner-Shell Physics (G. S. Brown, B. Crasemann, R. D. Deslattes, K. W. Jones, P. M. Koch, V. O. Kostroun, M. O. Krause, and E. Merzbacher) met with J. V. Martinez from the Department of Energy for an informal discussion of the prospect of establishing a beam line dedicated to atomic physics at the National Synchrotron Light Source (NSLS) at Brookhaven National Laboratory. As the principal sponsor of NSLS, the DOE is anxious to determine the extent of the atomic physics community's interest in utilizing this new source of photons.

The VUV ring at NSLS is now coming into operation, and the larger X-ray ring will soon follow. (For details, see the May 1981 issue of PHYSICS TODAY, or request information from M. Blume, NSLS, Brookhaven National Laboratory, Upton, NY 11973.) While other scientific constituencies, especially solid

state physicists and chemists, have already acquired their own beam lines, there does not yet exist a beam line dedicated to atomic physics with its special requirements.

If such a dedicated beam line is to be established, atomic physicists who are prepared to mount a research program around such a facility must let their interests and needs be known. Without a showing of common support, funding for an atomic physics beam line cannot be expected, and atomic physicists would have to rely entirely on sharing the existing beam lines, which are designed for other purposes.

If you are interested, please write your comments in a letter addressed to Bernd Crasemann, Department of Physics, University of Oregon, Eugene, Oregon 97403. Your response will be particularly helpful if it can be received before 31 December 1982.

VI. NBS 1984 PRECISION MEASUREMENT GRANTS

Applications are being solicited for two new NBS Precision Measurement Grants to be awarded beginning 1 October 1983. Each grant is in the amount of \$30,000 per year, renewable for up to two additional years. NBS sponsors these grants to encourage research in the field of measurement science, and to foster contacts between NBS scientists and those researchers in the academic community who are actively engaged in such work. Candidates' pre-proposal summaries and biographical information must reach NBS by 1 February 1983. For more information contact Barry N. Taylor, Chairman NBS Precision Measurement Grants Committee, National Bureau of Standards, Building 220, Room B258, Washington, D.C. 20234, telephone (301) 921-2701.

VII. ATOMIC PHYSICS GORDON CONFERENCE

The Atomic Physics Gordon Conference will be held 4-8 June 1983 in New London, New Hampshire. For details contact Hugh Kelly, Department of Physics, University of Virginia, Charlottesville, Virginia 22901, telephone (804) 924-3781.

VIII. APS TOPICAL CONFERENCE ON ATOMIC PROCESSES IN HIGH TEMPERATURE PLASMAS

The Fourth Topical Conference on Atomic Processes in High Temperature Plasmas will be hosted by the Princeton University Plasma Physics Laboratory in Princeton, New Jersey on 13-15 April 1983. The purpose of the conference is to bring together atomic and plasma theoreticians, experimentalists, and astrophysicists to review and discuss atomic and molecular processes occurring in high temperature plasmas such as concern solar physics, astrophysics, and controlled nuclear fusion research (both magnetically and inertially confined plasmas). The program will consist of invited and contributed papers. The deadline for contributed papers is 21 February 1983. Abstracts in standard Bulletin format should be sent (in triplicate) to D. E. Post, Princeton University, Plasma Physics Laboratory, P.O. Box 451, Princeton, New Jersey 08544. For information on housing and registration, contact Russell Hulse at the same address.

IX. VITAE OF NOMINEES FOR DEAP EXECUTIVE COMMITTEE MEMBER

COMPTON, ROBERT, 44, BA 1960, Berea College; MS 1962, University of Florida; PhD 1964, University of Tennessee. Senior Scientist and Group Leader, Molecular Physics Group at Oak Ridge National Laboratory since 1965. Ford Foundation Professor of Physics, the University of Tennessee, 1968-70. Visiting Scientist at FOM-Institute Amsterdam, 1978. DEAP Program Committee, 1979-80. Organized Laser Workshop at DEAP meeting in Los Angeles, December 1980. Secretary Local Committee, XII ICPEAC 1981. Program Committee for "Laser Techniques for Extreme Ultraviolet Spectroscopy" Boulder 1982 and 1984. Negative ions; van der Waals molecules; collision physics; application of laser techniques to atomic and molecular physics.

MANSON, STEVEN T., 41, BA 1961 Rensselaer Polytechnic Institute; PhD 1966, Columbia University. Faculty member, Georgia State University since 1968, presently Professor of Physics. NAS-NRC Postdoctoral Fellow at the National Bureau of Standards, 1966-1968. Alumni Distinguished Professor, Georgia State University, 1977. Chairman, Theoretical Panel, Workshop on Accelerator-Related Atomic Physics Research, 1980. Organizing Committee, Conference on Inner-Shell Ionization Phenomena, Atlanta, 1972. Program Committee, International Conference on X-Rays, Washington, 1966; Southeastern Section of the APS, Norfolk, 1976 and Lexington, 1982. Editorial Board of the Journal of Electron Spectroscopy, 1980-. Consultant to Argonne National National Laboratory, 1972-; Battelle Northwest, 1973-; Oak Ridge National Laboratory 1969-71, 78-80. Member of the NRC Committee on Recommendations for U.S. Army Basic Research, 1979-. Photoionization and photoelectron spectroscopy of atoms, ions, and excited states; ionization and electron ejection in ion-atom and electron-atom collisions.

TOLK, NORMAN, 43, AB 1960, Harvard College; PhD 1966, Columbia University. Lecturer, Columbia University Department of Physics, 1967-68; Adjunct Assistant Professor of Physics, Columbia University, 1968-69; Member of Technical Staff, Bell Laboratories since 1968, presently in Radiation Physics Research Department of Bell Labs, Murray Hill, N.J.; Visiting University Fellow, Australian National University, Canberra, Australia, 1975; Visiting Scientist, Max-Planck-Institut für Plasmaphysik, Garching bei München, West Germany, 1978; Visiting Professor of Physics, Osnabrück University, Osnabrück, West Germany, 1982. International Committee, International Workshops on Inelastic Ion-Surface Collisions, Murray Hill, 1976; Hamilton, 1978; Feldkirchen, 1980; Middlefart, 1982. Chairman, International Workshop on Desorption Induced by Electronic Transitions (DIET), Williamsburg, 1982. Workshop on Accelerator-Based Atomic and Molecular Science, 1980; DEAP Program Committee, 1976-77. Quantum electrodynamics; atomic outer-shell processes; coherence, alignment, and orientation in atomic collisions; inelastic interactions of synchrotron radiation, electrons, and ions with surfaces.