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The American Physical Society

DIVISION OF ELECTRON AND ATOMIC PHYSICS

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To Members of the DEAP from Kate Kirby

I. SUBMISSION OF ABSTRACTS FOR THE
SIXTEENTH ANNUAL MEETING OF THE
DIVISION OF ELECTRON AND ATOMIC PHYSICS
UNIVERSITY OF OKLAHOMA, NORMAN, OKLAHOMA
29 - 31 MAY 1985

Abstracts for contributed papers should be sent to the Secretary-Treasurer, Kate P. Kirby, Center for Astrophysics, 60 Garden St., Cambridge, MA 02138. The deadline for receipt of abstracts is Friday, February 1, 1985. Please note the following:

- (1) Abstracts should follow the standard APS format (see Bull. Am. Phys. Soc. 29, 1604 (1984)).
- (2) Indicate on one corner of the abstract whether you prefer an oral session or a poster session.
- (3) Include an appropriate PACS number on your abstract. The PACS numbers will be used to aid in sorting the abstracts into sessions, and therefore they should be as specific as possible and should indicate what type of audience you wish to address.
- (4) Sign your abstract!
- (5) Submit the original (which will be forwarded to the APS for reproduction in the Bulletin) and two copies of each abstract.
- (6) Mail your abstract early or use one of the overnight delivery services to insure that your abstract arrives by the deadline date.
- (7) Abstracts received after the deadline date will be forwarded to the chairman of the local organizing committee of the DEAP meeting (Dave Golden at the University of Oklahoma), and will be included in the program of the meeting as long as space permits. Postdeadline abstracts will not be published in the Bulletin.
- (8) The poster boards are 8 feet tall by 4 feet long (the top 2 feet are too high to be usable except possibly for a title) and will be available all during the meeting. For the convenience of all attendees, it is urged that you put up your poster the first morning.

II. REPORT OF THE NOMINATING COMMITTEE

The Nominating Committee, appointed by Hugh Kelly, consists of Steve Shafroth (Chairperson), Bernd Crasemann, Joseph Dehmer, Robin Shakeshaft, and Winthrop Smith. At a meeting on 8 November 1984, the Committee chose the following slate of candidates for the Spring elections:

Chairperson	Ronald Stebbings	(1 year)
Vice-Chairperson	Richard Deslattes	(1 year)
Secretary-Treasurer	Kate Kirby	(1 year)
Executive Committee Member	Gordon Dunn	(one to be
	Vincent McKoy	elected for a
	Patrick Richard	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 (139) of the members. Such nominations must reach me no later than 5 February 1985. 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 Norman, Oklahoma (6/85). Vitae of the nominees will appear in the March Newsletter along with the ballot.

The remainder of the Executive Committee is as follows: Hugh Kelly is currently Chairperson and will remain on the Committee for one more year as Most Recent Past Chairperson. Bernd Crasemann continues a four-year term as Divisional Councilor (until 12/86). The elected Committee Members are Richard Freeman (until 5/85), Robert Compton (until 5/86), and William Wing (until 5/87). Serving one-year terms appointed by the Chairperson are Lew Cocke and Walter Johnson (until 5/85).

III. SCIENTIFIC PROGRAM AND REGISTRATION INFORMATION FOR SIXTEENTH ANNUAL MEETING OF THE DIVISION OF ELECTRON AND ATOMIC PHYSICS, Norman, Oklahoma May 29-31, 1985

The Sixteenth Annual Meeting of the Division of Electron and Atomic Physics will be hosted by the University of Oklahoma, with the local organizing committee headed by David E. Golden and Thomas M. Miller. We anticipate a stimulating scientific program held on campus at the Oklahoma Center for Continuing Education, which has conference facilities ideally suited for our meeting.

Norman, Oklahoma is a half-hour drive from the Will Rogers Airport in Oklahoma City and is therefore easily reached by air. The campus of the University of Oklahoma is spread over 1,000 acres. The buildings are a mixture of traditional and contemporary architecture and are surrounded by shady walkways and colorful floral landscaping. The campus has a Museum of Science and History containing displays of earth, life, and social sciences. The OU Museum of Art contains distinguished works of American, European, Oriental and Indian Art. Sports facilities, such as tennis, golf, swimming, and an exercise center are all within several blocks of the OCCE Center. Water skiing, sailing, fishing and camping are all nearby as are the oldest mountains in North America. Visits to the Oklahoma Arts Center, the Oklahoma Museum of Art, the National Cowboy Hall of Fame, the Western Heritage Center and the Omniplex Center of Science and Art in Oklahoma City can be arranged.

The scientific program includes symposia, invited talks, and both oral and poster contributed papers. Some titles are tentative or have not yet been given:

SYMPOSIA

- I. Photoionization of Atoms and Molecules, organized by A. F. Starace.
Speakers: Manfred Krause, James Samson, David Shirley, Bernd Sonntag
- II. Coherence and Correlations in Collisions, organized by David Golden.
Speakers: Robert Celotta, Joachim Kessler, Sandor Trajmar, James Slevin
- III. Nonlinear and Quantum Optics, organized by Michael Raymer.
Topics: Optical instabilities in lasers and bistable systems, and soliton formation in stimulated scattering.
Speakers: John Carlsten, Jeffrey Kimble, Peter Milonni, Carlos Stroud
- IV. Recent Hot Topics in Atomic Physics, organized by Harvey Gould.
Speakers: Harold Hess, "Spin Polarized Hydrogen"
Walter Johnson, "Many Body Calculations of Electric-Dipole Enhancement Factors in Heavy Atoms"
Michael Strayer, "Positron Creation in Atomic Collisions"
(Fourth speaker to be chosen)
- V. Laser Spectroscopy and Electron Correlations, organized by Hugh Kelly.
Speakers: Patricia Dehmer, "Spectroscopy and Dynamics of Excited Molecular States Using Multiphoton Techniques"
Richard Freeman, "Planetary Atoms"
Chris Greene, "Hyperspherical Studies of Few Electron Correlations"
Daniel Larson, "Photodetachment in Magnetic Fields"

PLENARY SESSIONS

Thomas Gold, "New Directions in Astronomy and Cosmology"

Norman Ramsey, "Fifty Years of Molecular Beams"

INVITED TALKS

Lloyd Armstrong, "Theory of Multiphoton Ionization"

Alexander Dalgarno, "Recent Developments in Atomic and Molecular Astrophysics"

Dennis Matthews, "X-Ray Lasers"

Fred Meyer, "Low Energy Electron Capture by Fully Stripped Light Ions from Atomic Hydrogen"

Walter Meyerhof, "Relativistic Heavy Ion Collisions"

Patrick Richard, "1s-Lamb Shift in Heavy Ions"

Deborah Watson, "A Study of Partial Widths and Resonance Normalization"

In addition to the scientific program, the schedule includes:

- Tuesday, May 28: Registration 5:00 PM to 10:00 PM in OCCE Forum Bldg.
Reception 7:00 PM to 11:00 PM in OCCE Forum Bldg.
- Wednesday, May 29: Concert 8:00 PM Homberg Hall, transportation arranged
Lab Tours, Nielsen Hall, transportation arranged
- Thursday, May 30: Tours of the History of Science Collection in the afternoon
(the best collection of historical books on science in the world), followed by Delicious Banquet: Filet Mignon, Wine, Entertainment (\$16 Fee) OCCE Commons

The Oklahoma Center for Continuing Education (OCCE) is located 1.9 miles east of Interstate Highway 35 (Lindsey St. exit) and 0.4 miles south of Lindsey St. between Elm St. and Asp St. near Timberdell St. The OCCE will provide primary housing for conferees and families at the conference site. Several choices are available. All are air-conditioned and include maid service and free parking.

- (a) The Sooner House has 72 twin-bedded hotel rooms with private bathrooms and color TV.
- (b) The Hall of Advanced Studies has 8 suites each of which consist of a living room with TV, a large bathroom, and four separate single-occupancy bedrooms.
- (c) Walker Tower dorm rooms have a bathroom shared by two adjoining twin-bedded rooms. No TV.

Check-in service for most campus housing is at the Sooner House. Those in the dorm should check in at Walker Tower. Check-out time is 2 p.m. You may be able to stay until Saturday if no other meeting is scheduled to begin on the Saturday following our meeting. Please check with the OCCE about extra days. The attached housing reservation form lists prices and the address of the OCCE. Meals can be taken in the OCCE Commons cafeteria adjacent to the conference center and housing area, or in restaurants in the University area. There are many local restaurants and pubs in a variety of styles and price ranges. A prejudicial list will be made available to participants.

Participants staying at the OCCE are eligible to use campus recreation facilities. The swimming pool is across the street from the meeting site, and costs \$1. The Huston Huffman Physical Fitness Center is one-half block away (racquetball, squash, basketball, weightlifting, indoor running). The cost is \$3 per day.

5) A number of DEAP members still have academic commitments in late May (hence the scheduling of the 1986 and 1987 DEAP meetings for June). Most of the other APS divisions hold their meetings either in association with a large APS meeting or in a separate divisional meeting within the academic year. In other divisions, the question of interference with academic schedules does not dominate the meeting time and place; rather, these are chosen to attract the largest number of participants and to achieve the highest profile.

Case for Keeping DEAP Annual Meeting to late May Date

The present late May date for the DEAP meeting was chosen after considerable data gathering and deliberation. The good attendance at the first two such meetings confirms that by and large the membership find this to be a good date. Advantages of the late May date include:

1) It is both a convenient and pleasant time of year to travel.

2) Many (but not all) universities are out of session by the end of May. This makes it possible for some university hosts to make use of very inexpensive and convenient university facilities. Inexpensive university siting both encourages attendance by graduate students and allows members to gain first hand familiarity with individual Atomic, Molecular and Optical research programs in the country.

3) The May meeting comes early enough not to interfere substantially with summer conferences such as ICPEAC and the ICAP, and serves as a tune-up for, rather than a rehash of, these conferences. It also avoids conflict with topical fall conferences such as the Conference on the Application of Accelerators in Research and Industry.

V. ANOTHER IMPORTANT REFERENDUM ON NUMBER OF CANDIDATES RUNNING FOR OFFICE OF DEAP VICE-CHAIRPERSON

The Executive Committee also would like your input regarding the desirability of having one or two persons slated for election to the office of Vice-Chairperson. The Vice-Chairperson automatically becomes Chairperson the following year. Currently, only one candidate is slated by the Nominating Committee. Different points of view on this issue are presented below by advocates of each position:

Case for Only One Slated Candidate for Vice-Chairperson

The positions of Vice-Chairperson and Chairperson are of great importance to Atomic Physics but they are onerous and offer little apparent reward to the individuals. The officers of the Division must, for example, be ready to speak effectively to various bodies on behalf of the DEAP community and the demands measured in time and effort are considerable. We persuade the best candidates to serve by appealing to their sense of responsibility to the community in which they work. In any given year, it is difficult to find one suitable and willing candidate. There is concern that we may have serious problems in identifying two candidates, particularly if we dilute our appeal to them by asking that they

compete for this office. Instead, we should perhaps rely on an elected Nominating Committee to ensure our interests are represented.

Case for Two or More Candidates for Vice-Chairperson

1. Placing more than one candidate for the office of Vice-Chairperson (de facto Chairperson-elect) on the ballot will bring about a true election: the membership is given a choice. Members will have a direct role in the selection of the leadership of the Division, and their interest in Divisional affairs in general is likely to be stimulated.
2. A person chosen through a true election to lead the Division has a stronger mandate than one selected by a small Nominating Committee, which itself has been appointed by the current Chairperson. A person thus elected may therefore be in a stronger position to represent the membership.
3. Direct participation of the membership in the selection of the Vice-Chairperson helps to avert the danger that an "in-group" may come to run the Division.
4. The loser(s) in an election with multiple candidates, far from being discredited, will have been honored by the nomination, will have gained visibility, escaped a difficult and time-consuming assignment, and become more likely to be offered other governance positions in the Division.

PLEASE MARK THE ENCLOSED BALLOT FOR BOTH OF THE REFERENDUM ITEMS

VI. RESEARCH FUNDS AVAILABLE AT NATIONAL LASER USERS FACILITY FOR EXPERIMENTS IN HIGH ENERGY-DENSITY PHYSICS

The U.S. Department of Energy has designated the Laboratory for Laser Energetics at the University of Rochester as a national facility, available to qualified researchers nationwide for experiments in laser fusion, plasma physics, and associated applications. Proposals requesting allocation of facility time should be submitted to the users facility Manager by February 1, 1985. For more information about proposal guidelines and the resources available at NLUF, contact Thomas C. Bristow, Manager, National Laser Users Facility, Laboratory for Laser Energetics, University of Rochester, 250 East River Road, Rochester, New York 14623, (716) 275-2074.

VII. NBS 1986 PRECISION MEASUREMENT GRANTS

Applications are being solicited for two new NBS Precision Measurement Grants to be awarded beginning 1 October 1985. 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 1985. For more information, contact Barry N. Taylor, Chairman, NBS Precision Measurement Grants Committee, National Bureau of Standards, Building 220, Room B258, Washington, DC 20234.

VIII. ANNOUNCEMENTS OF UPCOMING MEETINGS

1. The 5th Topical Conference on ATOMIC PROCESSES IN HIGH TEMPERATURE PLASMAS will be held at the Asilomar Conference Center in Pacific Grove, CA, 25-28 February 1985. The conference brings together atomic and plasma physicists and astrophysicists to review and discuss atomic processes in plasmas. Topics to be covered include: electron, ion, and photon collisions; structure and spectroscopy of highly ionized atoms; and, the role of atomic processes in plasma experiments and astrophysics. For further information see the APS Bulletin or write to the local committee chairperson: J. C. Weisheit, Physics Department, Mail Code L-297, Lawrence Livermore National Laboratory, P. O. Box 808, Livermore, CA 94550.

2. ICPEAC XIV will be held on the campus of Stanford University, July 24-31, 1985. It will be hosted by the Molecular Physics Department of SRI and the Physics Department of Stanford with Don Lorents and Walter Meyerhof as Co-chairmen. The focus of this International Conference is on electronic, ionic, atomic, and photo collision processes from the meV to MeV range. The conference format will be similar to that of The Berlin conference with the program consisting of invited plenary lectures, review and progress reports, special interest symposia, hot topic sessions, and poster sessions for all contributed papers. Eight satellite workshops and conferences on various special topics are being organized either before or after ICPEAC itself. The first announcement has been sent out but if you did not receive it or desire more information, contact D. Lorents, Chemical Physics Lab, SRI International, Menlo Park, CA 94025.

3. The Gordon Conference in Atomic Physics will return to Brewster Academy, Wolfeboro, NH, for the week of July 1-5, 1985. Special topics to be featured include: single-atom physics; ultrasensitive techniques; ultraviolet spectroscopy; and others. For further information, please write to Harold Metcalf, Physics Department, SUNY, Stonybrook, NY 11790. More details forthcoming!

