

Division of Atomic, Molecular and Optical Physics NEWSLETTER

A Division of The American Physical Society

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Message from the Chair

... by Chun Lin

In two recent issues of the DAMOP Newsletter, Tom Gallagher raised the question of joint meetings of DAMOP with other subunits of the APS, especially the Laser Science Topical Group (LSTG) and the Division of Chemical Physics (DCP). The annual meeting of the DCP is held jointly with the Division of Condensed Matter Physics in March, but there appears to be considerable interest in strengthening the interaction between DAMOP and the gas-phase constituent of the DCP. As Tom pointed out, *"while joint meetings probably do not need to be held every year, having them periodically would be good for the long-term health of DAMOP"*.

In order to meet jointly with the LSTG, we will have to move the DAMOP meeting to the fall, since the LSTG already has its own meeting plan in the spring. It has been said that a fall meeting date is unpopular for various reasons, one of which may have to do with the snowstorm during our 1978 meeting, then the DEAP meeting, in a long-remembered northern city! Tom also suggested the alternative of retaining the DAMOP's May schedule and trying to arrange joint meetings with the gas-phase constituent of the DCP. If we leave the DAMOP Meeting in the spring, there is yet another option of meeting with the APS April ("Washington") general meeting once every two or three years. The last DAMOP meeting (April 1994) was of this kind and the comments I heard were unfavorable. In fact, the DAMOP Executive Committee was not in favor of continuing such joint efforts with a large combined March-April APS general meeting.

Recently, however, the APS has decided against combining the March and April meetings before 1999; instead, a number of experiments have been proposed to broaden participation in the April general meeting. For instance, in

some years the April general meeting will be held outside the Washington area. The APS is very anxious to have the DAMOP rejoining the April general meeting on a periodic basis and is willing to make modifications of the meeting format to meet the needs of DAMOP.

It appears that several options are now opened to us. We can move the DAMOP meeting to the fall so as to meet jointly with LSTG and DCP, and even other subunits. If we prefer to have the DAMOP meeting in the spring, possibilities exist for joint meetings with DCP (but not LSTG), and also for re-joining the April APS general meeting, perhaps on a trial basis.

Another issue of some interest is the suggestion to start the meeting on Sunday to take advantage of the supersaver airfare. University people may find this attractive because they will miss fewer classes, but I have also heard arguments against it. We need your advice!

Ron Phaneuf has prepared a questionnaire which is included in this newsletter. Your answers will be of great help to us in formulating our future meeting plans.

NOTE: A message to DAMOP members from the Officers of the APS on this subject appears on page 3.

FREE! The first year of APS membership is still free for Ph.D. students enrolled in the United States who have not previously been APS members. This includes three Divisions and/or Topical Groups.

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Your input is needed!

DAMOP Committees for 1994-95

The following are the members of our DAMOP Committees for 1994-95. We are grateful to these individuals for their willingness to serve. Please contact a committee member to provide input or to request information.

Executive Committee (term ends)

Chun C. Lin (Chair, 96)
Richard R. Freeman (Chair-Elect, 97)
Gordon W. F. Drake (Vice-Chair, 98)
Thomas F. Gallagher (Past Chair, 95)
Ronald A. Phaneuf (Sec.-Treas., 96)
Daniel J. Larson (Div. Councillor, 95)
Joseph L. Dehmer (Div. Councillor, 96)
Philip Bucksbaum (96)
Charlotte F. Fischer (97)
Katharine B. Gebbie (96)
Chris Greene (95)
Keith MacAdam (97)
Roberta Saxon (95)

Nominating Committee

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Patricia Dehmer
John Doering
Daniel Larson
Anthony Starace

Publications Committee

Keith MacAdam (Chair)
Pierre Meystre
Michael Morrison
William Phillips
Michael prior
Leposava Vusovic

Fellowship Committee

Gordon Drake (Chair)
Tu-Nan Chang
Hanspeter Helm
William Lichten
James Samson

Thesis Award Committee

John C. Miller (Chair, 95)
Philip C. Cosby (Vice Chair, 96)
P.S. Julienne (96)
Peter M. Koch (96)
Chi-Dong Lin (95)

**Please send any Newsletter input to
Ron Phaneuf any time!**

Program Committee (term ends)

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Kurt Becker (96)
C. Denise Caldwell (95)
C. Lewis Cocke (95)
William E. Cooke (97)
Philip Cosby (95)
George Gibson (97)
James E. Lawler (95)
Chi Dong Lin (96)
Howard Milchberg (97)
Thomas J. McIlrath (96)
Daniel E. Murnick (96)
Linn Van Woercom (97)
Carl Wieman (95)
Gordon Drake (ex officio)
Chun Lin (ex officio)
Ronald Phaneuf (ex officio)

26th Annual Meeting of the Division of Atomic, Molecular and Optical Physics, Toronto, Canada, May 16-19, 1995

The 26th Annual DAMOP Meeting will be held in Toronto, Canada on Tuesday through Friday, 16-19 May 1995. The host institutions are the University of Toronto and York University. This year is a joint meeting with our Canadian colleagues in the Division of Atomic and Molecular Physics (DAMP) of the Canadian Association of Physicists. All scientific sessions will be located in the McLennan Physics Building on the University of Toronto downtown campus. Accommodation is available at hotels and university dormitories which are conveniently located within walking distance of the University of Toronto downtown campus. Accommodation is available at hotels and university dormitories which are conveniently located within walking distance.

Travel to Toronto

Toronto International airport is about a 40-minute drive from the conference site. Taxi and bus transportation from the airport are readily available. Toronto is located on the shore of Lake Ontario about 100 miles from Niagara Falls and can be reached by car via the Queen Elizabeth Expressway. Drivers are warned that Toronto is notorious for rush-hour traffic jams. Furthermore, downtown parking is costly and restricted.

Environ

Metropolitan Toronto has a population in excess of four million and is the capital city of the Province of Ontario. It is undoubtedly the safest and cleanest city of its size in North America. It has a vast array of cultural facilities including concert halls, theatres, museums and science center which can easily be reached via an efficient subway system. Sites within about 100 miles from the city include the Shakespeare Theatre in Stratford, the Shaw Festival in Niagara-on-the-Lake and, of course, Niagara Falls.

Contributed Papers

Abstracts (one original and two duplicates) should be sent *before January 31, 1995* to:

Chun C. Lin

Abstracts DAMOP/DAMP 95

Department of Physics

University of Wisconsin

1150 University Avenue

Madison, WI 53706 USA

Abstracts received after this date will not be included in the Bulletin. Post-deadline abstracts may be submitted until April 30 and will be included in the supplementary program if space permits. A first author should submit no more than one abstract. Abstracts must be camera-ready and conform to APS guidelines (see recent issue of APS News). Please indicate your preference for oral or poster session in the corner of the abstract page. Each oral presentation will be allotted 12 minutes, which includes 2 minutes for discussion. Posters must fit on a board 4 feet high by 8 feet wide.

Further Details

Registration and hotel/university reservation forms and information will be available in the December issue of APS News. *Participants who are in the United States on a temporary visa should make arrangements well in advance to ensure that their visas will allow them to enter Canada and return to the United States.*

Address any questions to:

William Van Wijngaarden

Physics Department

York University

Petrie Building

4700 Keele Street

North York, Ontario, Canada M3J 1P3

FAX: (416)736-5516

E-Mail: FS300502@SOL.YORKU.CA

APS Viewpoint on Meetings **... by Harry Lustig**

The Officers of The American Physical Society appreciate this opportunity to ask the members of DAMOP for continued participation in a strengthened April meeting of the Society. All of us agree with you that strong divisional meetings are essential for the health of physics and that the DAMOP meetings have been among the best-organized and run meetings of the Society. But we also share a conviction that the unity of physics and pursuit of inter-disciplinary and cross-disciplinary research that are fostered and provided at multi-divisional and general meetings are important.

The April meeting, heretofore held annually in Washington has provided excellent invited talks (many organized by more than one division) and have pleased many participants. However, the number of attendees has been too small to provide funds for desirable social programs or to meet some other financial goals of the divisions.

When a proposal to merge the meeting into the successful March meeting was not accepted by the April divisions, the commitment was made by them to strengthen the April meeting so as to attract more participants, particularly students. An inter-divisional committee, chaired by former APS President Ernest Henley is at work to do that. One of the first decisions made was, for the remainder of this century, in alternate years to hold the meeting in different cities that are geographically and economically more favorable than Washington.

Several divisions have committed themselves materially to increase their participation in the April meeting. It would be sad and ironic if DAMOP were to pull out at this juncture. We urge you to make the April meeting your DAMOP meeting, at least in alternate years.

DAMOP Nominating Committee Welcomes Your Input!

The DAMOP Nominating Committee, chaired this year by Pat Richard, welcomes your suggestions of candidates for DAMOP offices *who are willing to*

serve. It is important to contact a member of the committee promptly, since the 1995 slate of candidates for DAMOP Vice-Chair and Executive Committee (2) will be developed during October-November.

NIST Precision Measurement Grants

Applications are being solicited for two new Precision Measurement Grants, sponsored by the National Institute of Standards and Technology, to be awarded beginning 1 October 1995 (Fiscal Year 1996). Each grant is in the amount of \$50,000 per year, renewable for up to two additional years for a total of \$150,000. NIST sponsors these grants to encourage research in U.S. colleges and universities in the field of precision measurement and fundamental constants, and to foster contacts between NIST scientists and U.S. academic researchers actively engaged in such work. Candidates' pre-proposal summaries and biographical information must reach NIST by 1 February, 1995 to be considered for the FY-96 awards. For more information, contact:

Dr. Barry N. Taylor, Chairman
NIST Precision Measurement Grants Committee
National Institute of Standards and Technology
Building 245, Room C229
Gaithersburg, MD 20899-0001
(301) 975-4220

U.S. Collaborators Sought

Groups of Russian Scientists at the Institute of Chemical Physics in Moscow and at Volgograd State University are seeking collaborators in atomic, molecular, chemical and surface physics. Priority areas include theory of tunneling transfer of electrons and heavy particles with applications in scanning tunneling microscopy, migration of particles on surfaces, dynamics of ion-surface interactions under slow atomic collisions, and laser initiation of elementary processes in molecular systems. Both experimental and theoretical research is being conducted by these groups. For more information

please contact:

Dr. Ivan I. Oleinik
Volgograd State University
Nevskaja Street, 6-115
Volgograd 400087, Russia
E-MAIL: olen@math.vgu.tsaritsyn.su

or

Dr. Kozhushner
Institute of Chemical Physics
Russian Academy of Sciences
Kosygin Street 4
117977 GSP-1 Moscow 334, Russia
E-MAIL: kinet@glas.apc.org

1995 AMO Doctoral Thesis Award: Call for Nominations

This \$1000 prize and certificate is awarded annually to recognize doctoral thesis work of outstanding quality and achievement in AMO physics, and to encourage written and oral presentation of research results. All finalists will receive certificates and a travel allowance to the 1995 DAMOP Meeting. Doctoral students who passed their thesis defense for a Ph.D. in AMO physics at any university in the U.S. or abroad after November 18, 1992 and before November 18, 1994 are eligible for the 1995 award (except students whose thesis advisors serve on the current selection committee). The nomination package must be submitted by November 18, 1994 to:

Dr. John C. Miller
Oak Ridge National Laboratory
Bethel Valley Road
Building 4500-S
P.O. Box 2008
Oak Ridge, TN 37831-6125

Contact John Miller or Ron Phaneuf for instructions on preparation of the nomination package.

ECAMP 5

The 5th European Conference on Atomic and Molecular Physics will be held in Edinburgh, Scotland on April 3-7, 1995. The abstract deadline is December 15, 1994. For more information contact:

Dr. Nigel Mason, Secretary ICAMP 5
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