

NEWSLETTER
DIGEST
December 1987
PARTICLE BEAM PHYSICS TOPICAL GROUP

** 1987 EXECUTIVE COMMITTEE

CHAIR	James E. Leiss	(4/88)
VICE CHAIR	Edward A. Knapp	(4/88)
SECY-TREAS.	Melvin Month	(4/90)
MEMBERS	Richard Briggs	(4/88)
	Alexander W. Chao	(4/89)
	Denis Keefe	(4/89)
	Claudio Pellegrini	(4/89)
	John Peoples	(4/88)

**GROUP MEMBERSHIP AS OF OCTOBER 9 WAS 1338.

**TO JOIN:

Use form in APS Bulletin

Or telephone: Lynne Morrison at (212)682-7341
(American Physical Society)

or: Marilyn Paul at (312)840-4544
(U.S. Particle Accelerator School)

**THE NOMINATING COMMITTEE FOR THE 1988 EXECUTIVE COMMITTEE WILL BE CHAIRED BY DENIS KEEFE. NOMINATIONS FOR VICE-CHAIR AND TWO MEMBERS SHOULD BE SENT TO HIM AT LAWRENCE BERKELEY LABORATORY, BERKELEY, CA 94720. THE NUMBER OF SIGNATURES REQUIRED FOR FORMALLY NOMINATING SOMEONE IS 25.

*THE DEADLINE FOR NOMINATIONS IS FEBRUARY 7, 1988. BALLOTS WILL BE SENT OUT BY MARCH 7, AND THE NEW COMMITTEE WILL BE INSTALLED AT OUR APRIL MEETING IN BALTIMORE.

**THE FIRST REGULAR MEETING OF THE PARTICLE BEAM PHYSICS TOPICAL GROUP WILL BE AT THE APS SPRING MEETING, APRIL 18-21, 1988.

*THE DEADLINE FOR CONTRIBUTED PAPER ABSTRACTS IS JANUARY 29, 1988. SUBMIT YOUR ABSTRACTS NOW AND ENCOURAGE YOUR COLLEAGUES AND STUDENTS TO DO THE SAME. USE THE ACCOMPANYING LIST OF SORTING CATEGORIES.

*6 INVITED PAPER SESSIONS

HIGH ENERGY PHYSICS	JOINTLY WITH [DIVISION OF PARTICLES AND FIELDS]
NUCLEAR PHYSICS	[DIVISION OF NUCLEAR PHYSICS]
LIGHT SOURCE PHYSICS	[ATOMIC MOLECULAR & OPTICAL PHYSICS]
INTENSE BEAM/PLASMA PHYSICS	[PLASMA PHYSICS DIVISION]
PARTICLE BEAM PHYSICS I	
PARTICLE BEAM PHYSICS II	

**THE 2nd (1988) ROBERT R. WILSON PRIZE HAS BEEN WON BY DONALD W. KERST "for his many contributions to accelerator physics, including the invention of the betatron (1940); his seminal paper (with Serber) on orbit dynamics in circular accelerators (1941); his leadership in the design and construction of a series of machines at the University of Illinois (through 1950); and his work as Technical Director of the Midwestern Universities Research Association (1953-1957) from which came, from his own work and from his stimulation of others, many of the most important accelerator physics developments of the 1950's."

**THE COMMITTEE FOR THE THIRD (1989) PRIZE WILL BE CHAIRED BY BOYCE D. McDANIEL, WITH GREGORY A. LOEW AS VICE-CHAIR. THE OTHER MEMBERS ARE JAMES E. LEISS, DONALD W. KERST, AND ROBERT B. PALMER. PLEASE SEND YOUR NOMINATIONS TO: Dr. Boyce McDaniel at Cornell University, Laboratory of Nuclear Studies, Ithaca, NY 14853.

*THE DEADLINE FOR NOMINATIONS IS SEPTEMBER 15, 1988.

**PHYSICAL REVIEW D IS PUBLISHING PAPERS ON PARTICLE BEAM PHYSICS. DON'T WAIT. COMPLETE AND SEND IN YOUR PAPERS NOW. IF YOU HAVE ANY QUESTIONS OR COMMENTS, WRITE OR TELEPHONE THE SECRETARY-TREASURER, MELVIN MONTH.

**THE EXECUTIVE COMMITTEE HAS ESTABLISHED TWO PANELS:

*PANEL ON PUBLICATION IN PARTICLE BEAM PHYSICS:
Send suggestions or comments to BOB GLUCKSTERN at the UNIVERSITY OF MARYLAND PHYSICS DEPARTMENT, COLLEGE PARK, MD 20742 or to DICK TALMAN at the CORNELL UNIVERSITY LABORATORY OF NUCLEAR STUDIES.

*PANEL ON EDUCATION IN ACCELERATOR PHYSICS AND UNIVERSITY PROGRAMS:
Send suggestions or comments to CLAUDIO PELLEGRINI at the NATIONAL SYNCHROTRON LIGHT SOURCE, BNL, or to ALEX CHAO at the SSC/CDG, LBL.

THESE PANELS WILL PREPARE REPORTS ON THE STATE OF PUBLICATION AND EDUCATION RESPECTIVELY.

**A COMMITTEE TO PREPARE A WHITE PAPER ON PARTICLE BEAM PHYSICS IS BEING SET UP. IT WILL PROVIDE BACKGROUND ON OUR FIELD AND EVALUATE OUR RELATIONSHIP WITH THE AMERICAN PHYSICAL SOCIETY. PLEASE ADDRESS TO THE SECRETARY-TREASURER ANY IDEAS YOU MAY HAVE ON THIS SUBJECT OF SUCH IMPORTANCE TO OUR FUTURE.

Mel Month
Secretary-Treasurer

Program Committee
Particle Beam Physics Topical Group
American Physical Society
December 1987

Dear Colleague:

The Particle Beam Physics Topical Group has chosen the Spring Meeting of the American Physical Society to hold its annual meeting. This is a great opportunity for us to establish an APS forum for the presentation of papers in accelerator physics. To make this meeting a success, we need your papers.

On behalf of the Program Committee, I would like to encourage you to contribute a paper to this meeting which will be held in Baltimore, MD, April 18-21, 1988. Each contributed paper is ten minutes and given orally. As with other APS meetings, there are no published proceedings.

The deadline for submission of abstracts is January 29, 1988. See the APS bulletin for instructions. You may use the attached form.

The contributed paper sessions will be organized in early February and the abstracts published in the bulletin, grouped according to session.

If you have any questions, please feel free to contact me or any member of the Program Committee.

Sincerely,

Mel Month, Chairman
Program Committee
BNL 516-282-7156
FNAL 312-840-4544

Program Committee:

K. Berkner, LBL; R. Briggs, LLNL; A. Chao, LBL/SSC; M. Craddock, TRIUMF; J. Duggan, N. Texas State; D. Edwards, Fermilab; H. Edwards, Fermilab; R. Gluckstern, Maryland; R. Jameson, LANL; S. Krinsky, BNL; C. Leemann, CEBAF; M. Month, BNL; J. Paterson, SLAC; C. Pellegrini, BNL; M. Reiser, Maryland; A. Ruggiero, BNL; R. Siemann, Cornell; J. Simpson, ANL; P. Sprangle, NRL; R. Stiening, SLAC; A. Thiessen, LANL

Sorting Categories
Particle Beam Physics
APS Spring Meeting

PB1 Accelerators and Storage Rings

- 1.1 High Energy Particle Accelerators and Colliders
- 1.2 Low and Intermediate Energy Accelerators and Storage Rings
- 1.3 Linear Accelerators
- 1.4 Cyclotrons
- 1.5 Electrostatic Accelerators
- 1.6 Particle Sources
- 1.7 New Acceleration Methods
- 1.8 Pulsed Power Accelerators
- 1.9 Synchrotron Radiation Sources and Damping Rings
- 1.10 Special Purpose Accelerators (Medical, Energy Production, Industrial, Defense)
- 1.11 Accelerators and Storage Rings, Other

PB2 Particle Beam Physics

- 2.1 Linear Beam Dynamics
- 2.2 Nonlinear Beam Dynamics
- 2.3 Multiparticle Dynamics
- 2.4 Beam Instabilities
- 2.5 Beam Interaction with Electromagnetic Radiation
- 2.6 Beam Interaction with Matter
- 2.7 High Current Beams
- 2.8 Photon Beams
- 2.9 Beam-Beam Interaction
- 2.10 Particle Beam Physics, Other

PB3 Accelerator Systems

- 3.1 Beam Diagnostics and Control
- 3.2 RF Technology and Systems
- 3.3 Magnet Technology and Systems
- 3.4 Power Sources
- 3.5 Beam Targets and Secondary Beams
- 3.6 Beam Transport
- 3.7 Injection and Extraction
- 3.8 Accelerator Systems, Other

CALENDAR

9-12 Nov 1987, Chicago, IL
32nd CONFERENCE ON MAGNETISM AND MAGNETIC MATERIALS
IEEE: 345 E. 47th St.: New York, NY 10017

19-21 January 1988, San Diego, California
WORKSHOP ON LINEAR ACCELERATORS AND BEAM OPTICS CODES
C. Eminhizer, Physical Dynamics Inc., 10280 North Torrey Pines Rd.,
Suite 260, La Jolla, CA 92037

22-27 February 1988, Los Alamos, New Mexico
WORKSHOP ON THE ADVANCED HADRON FACILITY-ACCELERATOR DESIGN
A. Thiessen, Los Alamos National Lab, Los Alamos, NM 87545

11-16 Apr 1988, Lugano, Switzerland
2nd ADVANCED ICFA BEAM DYNAMICS WORKSHOP
E. Keil, LEP Division, CERN, Geneva 23 Switzerland

18-21 Apr 1988, Baltimore, MD
GENERAL MEETING OF THE AMERICAN PHYSICAL SOCIETY
ANNUAL MEETING OF THE PARTICLE BEAM PHYSICS TOPICAL GROUP
W.W. Havens, Jr.: APS: 335 E. 45th Street: New York, NY 10017

14-19 May 1988, Rockport, Maine
CONFERENCE ON THE INTERSECTIONS BETWEEN PARTICLE AND NUCLEAR PHYSICS
A.D. Krisch, Univ. of Michigan, Dept. of Phys., Ann Arbor, MI 48109-1120

30 May - 3 June 1988, Hamburg, Germany
JOINT CERN ACCELERATOR SCHOOL-DESY COURSE
"Superconductivity in Particle Accelerators"
CERN Accelerator School, CERN, Geneva 23, Switzerland

31 May - 3 June 1988, Fort Lauderdale, FL
32nd INTERNATIONAL SYMPOSIUM ON ELECTRON, ION AND PHOTON BEAMS, 1988
Evelyn L. Hu: ECE Department: University of California: Santa Barbara,
CA 93106

7-11 Jun 1988, Rome, Italy
1st EUROPEAN PARTICLE ACCELERATOR CONFERENCE (EPAC 88)
S. Tazzari, Chairman: EPAC 88: INFN-LNF Frascati: P.O. Box 13: I-00044
Rome, Italy

20-24 June 1988, Newport News, VA
CEBAF SUMMER WORKSHOP
CEBAF, 12070 Jefferson Ave., Newport News, VA 23606

27 Jun - 15 Jul 1988, Snowmass, CO
DPF SUMMER STUDY: SNOWMASS '88, HIGH ENERGY PHYSICS IN THE 1990s
Joanne Day: Argonne National Laboratory: 9700 South Cass Ave.: Argonne,
IL 60439

12-15 Jul 1988, Southampton, Eng.
12th INTERNATIONAL CRYOGENIC ENGINEERING CONFERENCE (ICEC 12)
R.G. Surlock: Institute of Cryogenics: University of Southampton:
Southampton, SO9 5NH England

12-15 Jul 1988, Vancouver, BC
4th JOINT MMM INTERMAG CONFERENCE (MAGNETISM & MAGNETIC MATERIALS)
Diane S. Suitters: Courtesy Associates, Ste. 300: 655 15th St. N.W.:
Washington, DC 20005

18-29 July 1988, Stanford, CA
SLAC SUMMER INSTITUTE IN HIGH ENERGY PHYSICS
D. Leith, SLAC, P.O. Box 4349, Stanford, CA

25-29 Jul 1988, Paris, France
INTERNATIONAL CONFERENCE ON MAGNETISM (ICMM 88)
(ATTENDANCE LIMITED TO 800)
I.A. Campbell: Physique des Solides: Universite du Paris Sud: F-91405
Orsay Cedex, France

1-12 August 1988, Ithaca, NY
US PARTICLE ACCELERATOR SCHOOL
Courses in Particle Beam Physics (Cornell University)
Marilyn Paul, Fermilab, P.O. Box 500, Batavia, IL 60510

19-30 September 1988, Salamanca, Spain
CERN ACCELERATOR SCHOOL
"General Accelerator Physics"
CERN Accelerator School, CERN, Geneva 23, Switzerland

3-7 Oct 1988, Williamsburg, VA
1988 LINEAR ACCELERATOR CONFERENCE (LINAC88)
Christoph W. Leeman: Director Accelerator Physics: CEBAF: 12070
JEFFERSON AVE.: NEWPORT NEWS, VA 23606

19-26 October 1988, Capri, Italy
JOINT US-CERN SCHOOL
Frontiers of Particle Beams
Marilyn Paul, Fermilab, P.O. Box 500, Batavia, IL 60510

7-9 November 1988, Denton, Texas
10th CONFERENCE ON THE APPLICATION OF ACCELERATORS
IN RESEARCH AND INDUSTRY
J.L. Duggan, Physics Department, North Texas State University, Denton,
Texas 76203

1988, Grenoble, France
WORKSHOP ON ECR ION SOURCES
R. Geller, Centre D'Etudes Nucleaire, Ave. Des Martyrs 38, BP 85X-38041,
Grenoble CEDEX, France

1988 US Particle Accelerator School
August 1-12, 1988
Sponsored by Cornell University and
the Laboratory of Nuclear Studies

PROGRAM HIGHLIGHTS

2 weeks of university-style courses

Each course provides credit equal to 3 semester hours

Theory, Simulation, and Observation of Beams
in Storage Rings, R.H. Siemann, Cornell

Physics of Particle Accelerators, D.A. Edwards, Fermilab

Introduction to Synchrotron Radiation Sources, C. Pellegrini, BNL

Introduction to Free Electron Lasers, C.A. Brau, UC Santa Barbara/LANL

Each course consists of 40 lecture hours
including problem sessions and recitations

Prerequisites: Classical Mechanics and Electromagnetism

Send applications to:
US Particle Accelerator School
Fermilab, MS 125, P.O. Box 500, Batavia, Illinois 60510

Requests for the limited travel support and financial assistance
available should include biography, references, and accomplishments.

Decisions on applications will be made beginning April 15, 1988

Applicable Student Fee: \$300

Funding provided by the Department of Energy
and the National Science Foundation

APPLICATION FORM
7TH US PARTICLE ACCELERATOR SCHOOL

Name _____

Affiliation _____

Permanent Address _____

Temporary Address _____
(give dates) _____

Background -- include Degrees, Positions
(Resume and letters of reference would be helpful)

Applicable student fee: \$300

Course Selection:
(Students may take one course for credit)

	<u>1st Choice</u>	<u>2nd Choice</u>	<u>3rd Choice</u>
Theory, Simulation, & Observation of Beams in Storage Rings	_____	_____	_____
Physics of Particle Accelerators	_____	_____	_____
Intro to Synchrotron Rad. Sources	_____	_____	_____
Intro to Free Electron Lasers	_____	_____	_____

	<u>Item</u>	<u>Amount</u>
Request for Financial Support	_____	\$ _____
	_____	\$ _____
	_____	\$ _____
	Total	\$ _____

Reason _____

Return form as soon as possible to:
(Selection begins April 15, 1988)

US Particle Accelerator School
c/o Marilyn Paul
Fermilab
P.O. Box 500
Batavia, IL 60510

1988 PRIZE FOR ACHIEVEMENT IN
ACCELERATOR PHYSICS AND TECHNOLOGY

The US Particle Accelerator School invites nominations for prizes
awarded on a competitive basis for outstanding accomplishment
in accelerator physics and technology

Nominations should include:
Name and Institution of Candidate
Description of Accomplishment
Supporting Documents
Names of those Submitting Nomination

Submit nominations not later than May 15, 1988 to:
US Particle Accelerator School Office c/o Marilyn Paul
Fermilab MS125, P.O. Box 500, Batavia, Illinois 60510

Prize Selection Committee
R. Billinge, J.E. Leiss, C. Pellegrini, J. Rees

Normally 2 prizes each of \$1500 are awarded
They are made possible by donations from the Continuous Electron
Beam Accelerator Facility, the Houston Area Research Center,
Universities Research Association, Varian, and
Westinghouse Electric Corporation.

PRIZE FOR ACHIEVEMENT
IN ACCELERATOR PHYSICS AND TECHNOLOGY

OF

THE US PARTICLE ACCELERATOR SCHOOL

* Nomination Form *

* 1988 Prize *

The prize is awarded on a competitive basis for an outstanding accomplishment in accelerator physics and technology. The work should be appropriately identified with the candidate for nomination. Nominations should be submitted no later than May 15, 1988.

Name of Candidate: _____

Achievement: _____

Nomination Submitted by: _____

Rules: The nominations will be judged in May 1988 by an Awards Committee: R. Billinge, J.E. Leiss, C. Pellegrini, and J. Rees. Preference will be given to those whose contributions were made at an early stage of their research career and to those who have performed the major part of their work within the five years prior to the award. There will be two winners who will each receive a prize of \$1500. The prizes are made possible by donations from the Continuous Electron Beam Accelerator Facility, the Houston Area Research Center, Universities Research Association, Varian, and Westinghouse Electric Corporation.

For further information contact M. Month at BNL (516-282-7156) or M. Paul at Fermilab (312-840-4544).

The American Physical Society

DIVISION OF ATOMIC, MOLECULAR, AND OPTICAL PHYSICS

W. CARL LINEBERGER, Chairperson
JILA-BOX 440
UNIVERSITY OF COLORADO
BOULDER, COLORADO 80309
(303) 492-7834

WALTER R. JOHNSON, Vice-Chairperson
DEPARTMENT OF PHYSICS
NOTRE DAME UNIVERSITY
NOTRE DAME, INDIANA 46556
(219) 239-6651

WINTHROP W. SMITH, Secy.-Treas.
PHYSICS DEPARTMENT, U-46
UNIVERSITY OF CONNECTICUT
STORRS, CONNECTICUT 06268
(203) 486-3573

December 1987

Best Wishes for the Holidays to Members of the AMO Division from Win Smith

I. SUBMISSION OF ABSTRACTS FOR THE NINETEENTH ANNUAL MEETING
OF THE DIVISION OF ATOMIC, MOLECULAR, AND OPTICAL PHYSICS
(Joint Meeting with the April, 1988 national meeting of the APS)
BALTIMORE CONVENTION CENTER (near Inner Harbor)
Baltimore, Maryland
18-20 APRIL 1988

Abstracts for contributed papers should be sent to the Secretary-
Treasurer, Winthrop W. Smith, Dept. of Physics, U-46, The University of
Connecticut, Storrs, CT 06268. The deadline for receipt of abstracts is
Friday, January 22, 1988. Please note the following:

- (1) This deadline is ONE WEEK earlier than the regular deadline for the APS meeting, to allow for proper sorting of the abstracts into the sessions for our meeting BEFORE they must be submitted to APS. Please DO NOT send the abstracts directly to APS! Properly received abstracts will be acknowledged by postcard AFTER the papers have been sorted into sessions.
- (2) Abstracts should follow the standard APS format (see Bull. Am. Phys. Soc. 31, 1802 (1986)). MAKE SURE YOUR ABSTRACT IS THE CORRECT SIZE so that it is ready for photocopying as is.
- (3) Include an appropriate PACS number on your abstract. The PACS numbers will be used as an 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. (Phys. Rev. Letters publishes the PACS classification numbers periodically.)
- (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 ensure that your abstract arrives by the Jan. 22 deadline date.
- (7) Abstracts received after the deadline date will be forwarded to the chairman of the local organizing committee of the AMO Division meeting and will be included in the program of the meeting as long as space permits. HOWEVER, postdeadline abstracts will not be published in the Bulletin.

II. SCIENTIFIC PROGRAM AND REGISTRATION INFORMATION FOR THE NINETEENTH ANNUAL MEETING OF THE DIVISION OF AMO PHYSICS, BALTIMORE, MARYLAND, 18-20 APRIL, 1988

The Nineteenth Annual Meeting of the Atomic, Molecular, and Optical Physics Division will be held at the Baltimore Convention Center near the Inner Harbor, Baltimore, Maryland on April 18-20, 1988. Please note that this is earlier than the usual date for our annual meeting. Our meeting will be an integral part of the April, 1988 Meeting of the American Physical Society (traditionally the "Washington" Meeting of the APS). This meeting will be held in 1988 at the Baltimore Convention Center during the period Monday-Thursday, April 18-21, inclusive. Additional sessions of interest to many members of the AMO Division but not sponsored by our division will be held on Thursday, following the conclusion of our meeting. Further details about our meeting and the associated APS meeting will appear in the APS Bulletin before the meeting. The National Bureau of Standards and some of the Officers of the AMO Division will be assisting the American Physical Society in the organization of this meeting. A number of hotels and restaurants are within walking distance of the Baltimore Convention Center and Inner Harbor area.

Baltimore can easily be reached by air via Baltimore-Washington International Airport (Baltimore-BWI) and somewhat less conveniently from the other airports in the Washington, DC area. Automobile travel via Interstate 95 or the Baltimore-Washington Expressway is also convenient to the Convention Center Area. Baltimore has many tourist attractions including the Inner Harbor and Baltimore Aquarium, Johns Hopkins University, and many fine restaurants. Washington, DC is approximately one hour away by car or bus.

The scientific program will consist of a plenary talk on Monday, April 18 at 9:00 AM, symposia, contributed oral sessions and a poster session on each of the three days (Monday through Wednesday) of the AMO Divisional Meeting, in addition to the normal events associated with the APS "Washington" Meeting. Registration will be possible on the Sunday evening before the meeting begins and a Divisional Banquet will be arranged during the meeting by the local organizers. Although the Divisional meeting officially ends on Wednesday afternoon, participants are encouraged to stay for all or part of the remainder of the APS meeting on Thursday, April 21 to attend some of the other sessions.

Abstracts of contributed papers: please see notice on previous page.

PLEASE NOTE ALSO that a pre-registration form giving hotel information is inserted into this newsletter for your convenience in early registration. As usual, early hotel reservations are strongly recommended for maximum satisfaction and best rates. A page of this newsletter has a list of hotels and a map of the Baltimore Convention Center area.

Scientific Program

The plenary speaker on Monday morning will be Prof. Richard N. Zare of Stanford University. The following symposia are being organized:

- Fluctuations and*
- 5-6 1. "Quantum Statistics of the Electromagnetic Field" (organizer: Jeff Kimble, Univ. of Texas, Austin). Speakers will include H. C. Carmichael (U. of Arkansas), Serge Haroche (Yale and ENS, Paris) and L. Mandel (Univ. of Rochester). *+ Emil Wolf - Coherence Effects in the Space-Freq. Domain*
- 8 2. "Resonantly Enhanced Multiphoton Ionization Processes in Atoms and Molecules" (organizer: Vince McKoy, Calif. Inst. of Technology). This symposium will be an all-day symposium of two sessions, jointly sponsored by the Division of AMO Physics and by the Division of Chemical Physics. These sessions will focus on the underlying dynamics of multiphoton ionization processes. Invited speakers will present the work of the following individuals or groups: (i) J.L. Dehmer, P.M. Dehmer, S.T. Pratt, and M.A. O'Halloran (Argonne); (ii) R.N. Compton (Oak Ridge); (iii) P. Lambropoulos (USC); (iv) R.L. Dubs, V. McKoy, S.N. Dixit, and M. White (Caltech, Livermore, and Brookhaven); (v) S.N. Dixit, V. McKoy, H. Rudolph, and D. L. Lynch (Caltech, Livermore, and Los Alamos); (vi) C. Jungen, A. Giusti-Suzor, and D. Gauyacq (Orsay); (vii) P. Agostini (Saclay); (viii) S. Allendorf, D. Jacobs, and R.N. Zare (Stanford).
- 4 3. "Atoms and Molecules in Halley's Comet" (organizers: Peter Smith and Alex Dalgarno, Smithsonian Astrophysical Observatory, Harvard University). This symposium will be sponsored jointly with the APS Division of Astrophysics. Invited speakers will include: Paul D. Feldman (Johns Hopkins), "UV Spectroscopy of Halley's Comet" and Lewis E. Snyder (Univ. of Illinois), "Radio Observations of Molecules in Halley's Comet".
- 4 4. "Generation of Short Wavelength Radiation" (organizer: Tom McIlrath, University of Maryland; chairman: Tom Lucatorto, National Bureau of Standards). Invited talks: "Generation of UV Radiation using Undulators and Free Electron Lasers", Claudio Pellegrini (Brookhaven); "Generation of UV Radiation using Ultra-powerful Laser Drivers", Charles Rhodes (Univ. of Illinois at Chicago Circle); "Generation of Ultrashort Duration UV and Soft X-ray Radiation", Roger Falcone (Univ. of California-Berkeley); and "Excited-state Atomic Spectroscopy in the UV using Laser-Plasma Radiation Sources", T. J. McIlrath (Univ. of Maryland and NBS).
- 4 5. "Atomic Physics with Large Facilities" (organizers: Jim Samson, Univ. of Nebraska, and Fred Schlachter, Lawrence Berkeley Laboratory). Invited speakers: Volker Schmidt (Univ. of Freiburg), "Atomic Physics by the Use of Synchrotron Radiation"; titles of talks by A. S. Schlachter (LBL), K. Danzmann (Stanford), and Harvey Gould (Lawrence Berkeley Laboratory) will be announced later. It is our understanding that there will also be a related symposium on free-electron lasers sponsored by another division or topical group.
- 4 6. "Physics of Cooled Ion/Atom Beams and Clouds" (organizer: Dan Larson, University of Virginia). Speakers will include: John Bollinger (NBS - Boulder), Dan Dubin (UC-San Diego) and Ove Poulsen (Univ. of Aarhus). *+ D. Habs*

III. REPORT OF THE NOMINATING COMMITTEE

The Nominating Committee of the Division, chaired by Bob Freund, and consisting in addition of John Carlsten, Joe Dehmer and Alex Dalgarno, has met and selected a slate of officers for the Spring 1988 elections. The following people have agreed to run and their biographies together with a ballot will appear in a subsequent newsletter:

Vice-Chairperson:	Gordon Dunn (Univ. of Colorado- JILA)
(1 vacancy for a 1-year term)	John Moseley (University of Oregon)
Executive Committee Member:	Roy Champion (College of William and Mary)
(1 vacancy for a 3-year term)	David Pritchard (MIT)
	Roberta Saxon (SRI, International)

According to the Bylaws of our Division, the Vice-Chairperson automatically becomes Chairperson the following year, and then serves one additional year on the Executive Committee as Most-recent Past Chairperson. Additional nominations for any of the above offices will be recognized and included in the ballot if the nomination is supported in writing by five percent (160) of the members. Such nominations must reach me no later than February 5, 1988. The remainder of the Executive Committee is as follows: Carl Lineberger is currently Chairperson and will remain on the Committee for one more year as Most-recent Past Chairperson. Walter Johnson is currently Vice-Chairperson and will become Chairperson next year. Alex Dalgarno remains as Divisional Councillor (until 12/90). The previously elected Executive Committee members remaining after 6/87 are Norman Bardsley (until 5/88), Gordon Dunn (until 5/88), Norval Fortson (until 5/88), Patricia Dehmer (until 5/89), and Robert S. Freund (until 5/90).

IV. Addenda on OTHER DIVISIONAL COMMITTEES

The membership of the Fellowship Committee is now complete: Pat Richard (chm), Alex Dalgarno, John Hall, Neal Lane. Members of the Division are earnestly invited to nominate other appropriate members for the honor of APS Fellowship. Nominations for Fellowship in the APS should be sent to Evelyn Bennett at the American Physical Society, 335 E. 45th Street, New York, NY 10017. The nominations should be submitted on the official APS form, which can be obtained by writing to Ms. Bennett at the APS or to DAMOP Fellowship Committee Chair P. Richard, Dept. of Physics, Cardwell Hall, KSU, Manhattan, KS 66506. Nominations must be signed by two members of the APS. The vitae of the candidate should be submitted along with this form and any other supporting material (NOT reprints). Be sure to specify the division in order for the DAMOP Fellowship Committee to receive the nomination. The deadline for receipt of nominations is January 15, 1988.

The newly-formed Public Education Committee of the Division consists of: Gordon Dunn (chm), Dan Kleppner, and Ron Stebbings. Items that members wish to bring to the attention of this committee should be sent to the Chairperson, Gordon Dunn at JILA, University of Colorado, Boulder, CO 80309, or to any other member of the committee.

V. NEW APS FELLOWS ELECTED

Congratulations are extended to the following Division members who were elected to Fellowship in the American Physical Society during the past year:

Philip L. Altick	Keith B. MacAdam
George J. Basbas	James H. McGuire
Anand K. Bhatia	Allen P. Mills, Jr.
Paul D. Burrow	Peter J. Mohr
Shih_I Chu	Michael A. Morrison
Kwong T. Chung	Talbert S. Stein
Tom J. Gray	Walter R. Thorson
Walter E. Kauppila	Rand L. Watson

Andrew W. Weiss

Certificates of Fellowship will be awarded to these people at the April 1988 APS Meeting in Baltimore.

VI. MEETING ANNOUNCEMENTS

The Eleventh International Conference on Atomic Physics (ELICAP) will be held in Paris on 4-8 July 1988, with the Ecole Normale Supérieure as host institution. Principal topics for invited papers include: QED and relativity tests; precision measurements; symmetry tests in atomic physics; ion and atom traps; atomic collisions; structure of atoms, ions and molecules; Rydberg atoms; quantum optics and lasers; non-linear effects and chaos. The Conference will be in English. Attendance is traditionally by invitation due to limited space. For further information contact: Prof. S. Haroche (Chairman), or Drs. J.C. Gay and G. Grynberg (Co-Chairmen) at the Laboratoire de Physique, Ecole Normale Supérieure, 24 rue Lhomond, 75231 Paris Cedex 05, FRANCE.

There will be an international conference to celebrate the centennial of the birth of Prof. C.V. Raman, in Calcutta, Nov. 2-7, 1988. Sponsor: Indian Assoc. for the Cultivation of Science, Calcutta.

The AMO Physics Division of the APS is organizing a symposium at the June, 1988 Meeting of the Canadian Physical Society. Dr. David Golden of North Texas State University is responsible for this session. Further details will be forthcoming in the next newsletter.

VII. NBS PRECISION MEASUREMENT GRANTS FOR FY 1989

Applications are being solicited for two new NBS Precision Measurement Grants to be awarded beginning 1 October 1988 (Fiscal Year 1989). Each grant is in the amount of \$30,000 per year, renewable for up to two additional years, for a total of \$90,000. NBS 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 NBS scientists and those researchers in the U.S. academic community who are actively engaged in such work. Candidates' pre-proposal summaries and biographical information must reach NBS by 1 February 1988 to be considered for the FY 89 awards. For more information contact Barry N. Taylor, Chairman, NBS Precision Measurement Grants Committee, National Bureau of Standards, Building 220, Room B258, Gaithersburg, MD 20899, (301)975-4220.

VIII. RESTRUCTURING OF THE PHYSICAL REVIEW

The increasing number of articles published in the Physical Review is creating a problem for the Journal. A Committee has been formed with King Walters as Chairman to study the problem and to make recommendations for restructuring the Physical Review. The problem is most acute for Physical Review B which covers condensed matter physics. The problem is not as serious for Physical Review A, but may become serious in a few years.

The Committee has met once in Ridge, New York and been briefed by the Editors of the Physical Review and the Physical Review Letters. In discussions at that meeting it was suggested that one way to deal with the problem was to split the journal up further into subvolumes each of which covers a more restricted area in a particular domain of physics. This differs from the more recent policy in which the number of issues per year has been increased to handle the larger volume and keep each issue from becoming too thick.

For Physical Review A one might have a volume A1 and a volume A2 with A1 dealing with atomic, molecular, and optical physics and A2 dealing with the other material now included broadly under general physics. In time one might further separate optical physics from atomic and molecular physics. An alternate approach might be simply to be more selective and reject a larger fraction of the submitted articles.

Another suggestion made at the meeting was that there be a separate volume of Physical Review B for Rapid Communications. It was not felt that the number of manuscripts was sufficient to mandate a separate Rapid Communications volume for Physical Review A.

The Committee would like input from the members of the Division of Atomic, Optical, and Molecular Physics. If you have views concerning how the Physical Review should be restructured, please send them to the address listed below. In order to have impact, your letter should reach me before 1 January 1988. F.M. Pipkin, Physics Department, Harvard University, Cambridge, MA 02138.

IX. NATIONAL LASER USER'S FACILITY

The National Laser User's Facility (NLUF), located at the University of Rochester's Laboratory for Laser Energetics, is available for experiments in high energy-density studies and associated applications. The unique resources of the Laboratory are available to scientists for state-of-the-art experiments in areas such as plasma physics, spectroscopy of highly ionized atoms, laboratory astrophysics, inertial fusion, fundamental physics, materials science, and biology and chemistry.

The Laboratory for Laser Energetics was established in 1970 to investigate the interaction of high power lasers with matter. It is the home of: OMEGA, a 2.5 trillion watt, 24-beam laser system (at 0.35 μm) and the Glass Development Laser (GDL), a 250 billion watt, single-beam prototype for OMEGA (at 0.35 μm). (CONTINUED on page 7.....)

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The United States Department of Energy has designated the Laboratory as the National Laser User's Facility (NLUF), with the aim of making this unique research tool available to qualified researchers nationwide. Funds are available to support user experiments. The staff of the NLUF maintain and operate the facility and are available for scientific collaboration and for assistance with user experiments. Collaboration between staff members and outside researchers is encouraged.

The NLUF offers to the scientific community the capabilities developed at the Laboratory for laser matter interaction experiments or for using the short, 100 picosecond, pulses of laser light, x-rays, or neutrons for probing the structure of matter. The fields of research available to users include: Plasma Physics, Materials Science, Laboratory Astrophysics, Fundamental Physics, Spectroscopy of Highly Ionized Atoms, Inertial Fusion.

For more information about proposal guidelines and the resources available at the NLUF, please contact: James Knauer, Manager, National Laser User's Facility, Laboratory for Laser Energetics, University of Rochester, 250 East River Road, Rochester, NY 14623, 716/275-2074.

X . PRE-REGISTRATION FORMS FOR THE APRIL 1988 DAMOP-APS MEETING
IN BALTIMORE

These forms have been inserted into this newsletter; copies will also appear in the APS Bulletin announcing the meeting. Attached to this newsletter is a map showing the names and locations of the hotels near the Convention Center, as arranged by the APS. Please note the cut-off date of March 14, 1988 for reserving rooms at the special room rates which have been negotiated by the APS for this meeting. Note also that the Housing Application form is to be sent directly to the Housing Bureau in Baltimore.

PARTICIPATING HOTEL	HOTEL CODE	SINGLE	DOUBLE	TWIN	EXTRA PERSON CHARGE
BEST WESTERN HALLMARK HOTEL	BWHH	\$46.00	\$52.00	\$52.00	\$10.00
DAYS INN INNER HARBOR	DAYS	\$64.00	\$74.00	\$74.00	\$10.00
HOLIDAY INN DOWNTOWN	HIDT	\$65.00	\$75.00	\$75.00	\$10.00
HYATT REGENCY BALTIMORE	HRDT	\$98.00	\$98.00	\$98.00	\$15.00
OMNI INTERNATIONAL HOTEL	OMNI	\$82.00	\$92.00	\$92.00	\$16.00
SHERATON INNER HARBOR HOTEL	SHIH	\$95.00	\$95.00	\$95.00	\$15.00

