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Important Dates

Fellowship Nomination
Friday, 15 March 1996

Prize and Awards Nominations
Thursday, 4 April 1996

1996 Officers Nominations
Thursday, 4 April 1996

Invited and Review Papers
Wednesday, 5 June 1996

Contributed Abstracts
Wednesday, 10 July 1996



Call for Nominations for 1996 APS Fellowship

Deadline: Friday, 15 March 1996

Each year the Division of Plasma Physics (DPP) is allowed to submit nominations of about 1/2% of its membership, approximately 12 members, to Fellowship in the American Physical Society (APS). Fellowship status for members of the DPP is indicated by an asterisk next to the member's name in the current APS Membership Directory. A nomination form is enclosed. The original nomination package should be sent to Executive Officer at APS (see address below), along with a cover letter stating that a copy has also been sent to Nathaniel Fisch (see address below):

<p>Original:</p> <p>Executive Officer American Physical Society One Physics Ellipse College Park, MD 20740-3844 301-209-3268</p>	<p>Copy:</p> <p>Nathaniel Fisch Princeton Plasma Physics Laboratory PO Box 451 (express mail: Route 1, North JFC) Princeton, NJ 08543 609-243-2643</p>
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Deadline for receipt of nomination packages is: Friday, 15 March 1996.

The nomination package should consist of 20 single-sided pages or less containing: a completed nomination form with supporting statements or letters from two sponsors (it is recommended that they be Fellows themselves), a citation limited to 30 words, and citations for the nominee's four most notable publications. (A list of DPP members holding Fellowship rank is on the APS home page at <http://aps.org>.) It is suggested that one of the sponsors not be from the nominee's institution. The sponsors should solicit and include up to two additional supporting letters. A list of refereed publications should also be included. (This may be in compressed, but readable, form.) Optional material, such as candidate vita, may be appended as long as the 20 single-sided pages limit is not exceeded. Note that these instructions differ somewhat from those printed in the standard APS form.

The principal criterion for fellowship is outstanding scientific or technical contributions, evidenced by the quality and impact of the contributions. Special services to science or the APS, contributions to scientific leadership or teaching, and recognition as an authority in some branch of plasma physics will be given serious consideration. Election to Fellowship requires membership in the APS and, typically, at least six years of experience beyond the Ph.D. The nominations are evaluated by the DPP Fellowship Committee and its recommendations are considered in succession by the DPP Executive Committee, the APS Fellowship Committee, and the APS Council. A nominee for Fellowship who has not been approved after review by two consecutive Fellowship Committees shall be dropped from the list of nominees. The sponsors of the nominated member shall be notified by the APS Executive Officer (Judy Franz) that the member will not be elected to Fellowship based on that nomination, but that the name of the Member may be resubmitted at a later time for nomination to Fellowship. A Fellowship certificate for the newly selected fellow, bearing the citation, will be awarded at the banquet of the Annual Meeting. J

1996 Fellowship Committee

Nathaniel Fisch, <i>Chair</i>	Princeton U.	609-243-2643
Ira Bernstein	Yale University	203-436-0933
Liu Chen	UC, Irvine	714-824-3530
Steven Haan	LLNL	510-422-4715
Noah Hershkowitz	U. of Wisconsin	608-263-4970
Thomas Marshall	Columbia U.	212-854-3116
Rael Stern	U. of Colorado	303-492-8768
Ravinda Sudan	Cornell	607-255-7392

(A Fellowship Nominations form can be printed from the APS home page at <http://aps.org>.)

Award for Excellence in Plasma Physics Research

Sponsored by Friends of the Division of Plasma Physics.

Purpose:

To recognize a particular recent outstanding achievement in plasma physics research.

Nature:

The award consists of \$5,000, to be divided equally in the case of multiple winners. Each recipient will receive a certificate to be presented during the award ceremony at the banquet for the Division of Plasma Physics Annual Meeting.

Establishment and Support:

This award was established in 1981 with support from the Friends of the Division of Plasma Physics and is to be awarded annually if the Award Committee identifies a worthy candidate or candidates.

Rules and Eligibility:

Nominations are open to scientists of all nationalities, regardless of the geographical site at which the work was done. The award shall ordinarily be presented to an individual scientist but may be bestowed on a set of scientists, as appropriate, to honor those who make essential contributions to the cited research achievement. Nominations of candidates remain active for three years.

For further information contact:

Mordecai Rosen
Lawrence Livermore National Laboratory
7000 East Avenue (L-472)
Livermore, CA 94551
Tel: 510-422-5427
Fax: 510-423-9969
Email: rosen2@llnl.gov

**Deadline for receipt of nominations:
Thursday, 4 April 1996**

Committee:

Mordecai Rosen, <i>Chair</i>	
LLNL	510-422-5427
Ian Hutchinson, <i>Vice-Chair</i>	
MIT	617-253-8760
Ira Bernstein	
Yale	203-432-4352
Joseph Kilkinney (a 1995 recipient)	
LLNL	510-423-4213
James Van Dam	
U. of Texas	512-471-6129

Simon Ramo Award

Sponsored by TRW, Incorporated.

Purpose:

To provide recognition to exceptional young scientists who have performed original doctoral thesis research of outstanding scientific quality and achievement in the area of plasma physics.

Nature:

The award consists of \$1,500 and a certificate to be presented during the award ceremony at the banquet for the Division of Plasma Physics Annual Meeting and a travel allowance to the meeting of up to \$500.

Establishment and Support:

This award was established in 1985 to honor the many outstanding contributions to the science and application of electromagnetism by Dr. Simon Ramo and is supported by funding from TRW, Inc.

Rules and Eligibility:

Nominations will be accepted for any doctoral student (present or past) of a college or university in the United States or for a United States' student abroad. The work to be considered must have been performed as part of the requirements for a doctoral degree. Also, the nominee must not have passed his final doctoral examination or started regular employment more than 18 months before the nomination deadline for the selection cycle in which the nomination is to be considered. Each nominee will be considered in not more than two consecutive cycles.

For further information contact:

George Morales
University of California, Los Angeles
Plasma Physics Group
1-130 Knudsen Hall
405 Hilgard Avenue
Los Angeles, CA 90024-1594
Tel: 310-825-4318
Fax: 310-825-4057
Email: morales@ucla.edu

**Deadline for receipt of nominations:
Thursday, 4 April 1996**

Committee:

George Morales, <i>Chair</i>	
UCLA	310-825-4318
Raymond Fonck, <i>Vice-Chair</i>	
U. Wisconsin	608-263-7799
Roger Bengtson	
U. of Texas	512-471-3943
Warren Mori (1995 recipient advisor)	
UCLA	310-206-0372
Albert Simon	
U. of Rochester	716-275-4431

Nicholson Medal for Humanitarian Service

Sponsored by friends of Dwight Nicholson.

Purpose:

To recognize the humanitarian aspect of physics and physicists.

Nature:

The Nicholson Award consists of a medal and a certificate which includes the citation for which the recipient has been recognized.

Establishment and Support:

This medal award was established in 1993 by contributors from the APS Membership.

Rules and Eligibility:

The medal is given to a physicist exhibiting extraordinary quality in one of the following areas:

1. A physicist who, through teaching, research, or science-related activities, has implemented a vision for the improvement of the quality of life in our society.
2. A physicist who has demonstrated a particularly giving and caring relationship with students or colleagues, has produced works of educational significance, or has created special opportunities for students or junior colleagues.
3. A physicist who has been a leader in the promotion of international human rights or peace, or in the promotion of international ties in science.

For further information contact:

Valerie Thomas
 Princeton University
 CEES H-102 E-Quad
 PO Box 5263
 Princeton, NJ 08544
 Tel: 609-258-4665
 Fax: 609-258-3661
 Email: vmthomas@princeton.edu

**Deadline for receipt of nominations:
Thursday, 4 April 1996**

Committee:

Valerie Thomas, <i>Chair</i>	
Princeton U.	609-258-4665
John Finn, <i>Vice-Chair</i>	
LANL	505-667-8156
Yuri Orlov (1995 recipient)	
Cornell	607-255-3502
Alvin Saperstein	
Wayne State U.	313-577-2733
Thomas Stix	
PPPL	609-243-2488

Note: Supporting information for the Nicholson Medal should be developed by a primary nominator who would gather at least three letters of recommendation and a current curriculum vitae of the nominee. Additional supporting letters are helpful.



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Friday, 15 March 1996

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1996 Officers Nominations
Thursday, 4 April 1996

Invited and Review Papers
Wednesday, 5 June 1996

Contributed Abstracts
Wednesday, 10 July 1996



Nominations for Officers of the Division of Plasma Physics

Nominations are being requested for 1996 Officers of the DPP: Vice-Chair and three Executive Committee members. Following the rules set forth in our Bylaws, candidates must be members of the DPP for at least two years prior to nomination, a slate of candidates will be selected by the Nominations Committee, chaired by Keith Thomassen, and ballots will be mailed to the DPP membership during the summer.

Members nominated by at least 1% of the DPP (about 25 members) will automatically be placed on the ballot. The Vice-Chair will be the Chair of the Fellowship Committee; the following year s/he will succeed to the Chair-Elect of the DPP and will be the Chair of the Program Committee; and then the year after that s/he will assume the Chair of the DPP. Please use the form below and mail it (photocopy or cut off) or email nominations, your return address is your official DPP member signature, to:

Keith Thomassen
Lawrence Livermore National Laboratory
7000 East Avenue (L-)
Livermore, CA 94551
Phone: 510-422-9815
Fax: 510-424-6401
thomassen@llnl.gov

Deadline for receipt of nominations:

Thursday, 4 April 1996

✂ Cut along this line and mail. ✂

**Nomination Form for Officers
Division of Plasma Physics**

Vice-Chair (one) _____

Executive Committee Member (3) _____

Signature of APS-DPP Member

Deadline for receipt of nominations:

Thursday, 4 April 1996

APS—Division of Plasma Physics Committees

The business of the Division of Plasma Physics is conducted by a large number of members willing to serve on the committees listed on the following pages. The DPP is indebted to these members for his or her time and interest. Please feel free to contact any member of the Executive Committee on general APS-DPP matters or the Chair of any appointed committee on issues within its purview. We look forward to working with you to promote the business of the DPP during the coming year.J

Stewart Prager, 1996 Chair
Division of Plasma Physics, APS

1996 Executive Committee

Chair:

Stewart Prager U. of Wisconsin 608-262-7768 prager@juno.physics.wisc.edu

Chair-Elect:

Richard Hazeltine U. of Texas 512-471-1322 rdh@hagar.ph.utexas.edu

Past Chair:

Barrett Ripin APS 301-209-3233 ripin@aps.org

Vice-Chair:

Nathaniel Fisch PPPL 609-243-2643 fisch@pppl.gov

Secretary-Treasurer:

Mary Ann Sweeney SNL 505-845-7307 masween@sandia.gov

Divisional Councillors:

Roy Gould Caltech 818-395-4811 rwgould@cco.caltech.edu

William Kruer LLNL 510-422-5437 kruer@icf.llnl.gov

Members:

Donald Batchelor ORNL 423-574-1288 batchelor@fedc04.fed.ornl.gov

James Drake U. of Maryland 301-405-1471 drake@plasma.umd.edu

Fred Driscoll UCSD 619-534-2489 fdriscoll@ucsd.edu

Chan Joshi UCLA 310-206-2039 joshi@ee.ucla.edu

Peter Politzer GA 619-455-2260 politzer@gav.gat.com

Miklos Porkolab MIT 617-253-8448 porkolab@pfc.mit.edu

Sherrie Preische Cadarache 33-42-25-61-63 preische@fedv09.cad.cea.fr

Ned Sauthoff PPPL 609-243-3207 sauthoff@pppl.gov

Barbara Shrauner Washington U. 314-935-6134 bas@ee.wustl.edu

1996 Appointed Committees

Program Committee for Invited and Contributed Papers

Richard Hazeltine, Chair U. of Texas 512-471-1322 rdh@hagar.ph.utexas.edu

Viktor Decyk UCLA 213-206-0371 decyk@physics.ucla.edu

Norman Delamater LANL 505-667-7946 ndd@lanl.gov

Dan D'Ippolito Lodestar 303-449-9691 dasd@lodestar.com

Fred Driscoll UCSD 619-534-2489 fdriscoll@ucsd.edu

Nathaniel Fisch Princeton U. 609-243-2643 fisch@pppl.gov

Masami Fujiwara NIFS, Japan 81-52-789-4228 fujiwara@nifs.bbs.nifs.ac.jp

Kenneth Gentle U. of Texas 512-417-7581 textkwg@fusion.ph.utexas.edu

Parvez Guzdar U. of Maryland 301-405-1590 guzdar@fusion.umd.edu

Richard Hawryluk PPPL 609-243-3306 rhawryluk@pppl.gov

John Hogan ORNL 423-574-1349 hogan@fed.ornl.gov

Mary Hudson Dartmouth/Berkeley 510-642-1327 maryk@sunspot.ssl.berkeley.edu

Robert LaHaye GA 619-455-3134 lahaye@gav.gat.com

Edward Lee LBL 510-486-7345 ed_lee@macmail.lbl.edu

Earl Marmor MIT 617-253-5455 marmor@pfc.mit.edu

Paul Ottinger NRL 202-404-7567 ottinger@nrl.navy.mil

Program Committee for Invited and Contributed Papers, continued

Stewart Prager	U. of Wisconsin	608-262-7768	prager@juno.physics.wisc.edu
Bruce Remington	LLNL	510-423-2712	remington2@llnl.gov
Mark Siegrist	Ecole	21-693-3482	siegrist@crpp.epfl.ch
Albert Simon	U. of Rochester	716-275-4431	simo@me.rochester.edu
Mary Ann Sweeney	SNL	505-845-7307	masween@sandia.gov
Harold Weitzner	NYU	212-998-3267	weitzner@cims.nyu.edu
Jon Weisheit	Rice	713-527-4654	jonw@zeno.rice.edu
Amy Wendt	U. of Wisconsin	608-262-8407	wendt@engr.wisc.edu

Local Arrangements for Louisville, Kentucky Annual Meeting

Dan D'Ippolito, <i>Chair</i>	Lodestar	303-449-9691	dasd@lodestar.com
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Site Selection Committee

William Kruer, <i>Chair</i>	LLNL	510-422-5437
Mary Ann Sweeney	SNL	505-845-7307

Public Information Coordinator

Richard Petrasso, <i>Chair</i>	MIT	617-253-8458	petrasso@pfc.mit.edu
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Newsletter, Program Administration, and Home Page

Saralyn Stewart	U. of Texas	512-471-4378	stewart@hagar.ph.utexas.edu
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Fellowship Committee

Nathaniel Fisch, <i>Chair</i>	Princeton U.	609-243-2643
fisch@pppl.gov		
Ira Bernstein	Yale University	203-432-4352
Liu Chen	UC, Irvine	714-824-3530
Steven Haan	LLNL	510-422-4715
Noah Hershkowitz	U. of Wisconsin	608-263-4970
Thomas Marshall	Columbia U.	212-854-3116
Rael Stern	U. of Colorado	303-492-8768
Ravinda Sudan	Cornell	607-255-7392

Publication Committee

Douglass Post, <i>Chair</i>	ITER, San Diego	619-622-5141
postd@iterus.org		
Barbara Shrauner	Washington U.	314-935-6134
Bruce Cohen	LLNL	510-422-9823
James Drake	U. of Maryland	301-405-1471
David Forslund	LANL	505-665-1907
Martin Goldman	U. of Colorado	303-492-8896
Noah Hershkowitz	U. of Wisconsin	608-263-4970
Charles Karney	PPPL	609-243-2607
Neville Luhmann, Jr.	UCLA	310-825-4163
James Rome	ORNL	615-574-1306
John Sethian	NRL	202-767-2705
Ernest Valeo	PPPL	609-243-2610

Human Rights Committee

William Dorland, <i>Chair</i>	U. of Texas	512-471-3795
bdorland@hagar.ph.utexas.edu		
Herbert Berk	U. of Texas	512-471-1364
Abraham Bers	MIT	617-253-4195
John Finn	LANL	505-667-8156
Bruce Scott	Max-Planck, Germany	49-89-3299-1644
Andrew Sessler	LBL	510-486-4992
Thomas Stix	PPPL	609-243-2488

1996 Appointed Committees, continued**Interdivisional and Public Affairs**

Herbert Berk, <i>Chair</i> berk@hagar.ph.utexas.edu	U. of Texas	512-471-1364
Daniel Cohn	MIT	617-253-5524
Donald Correll	LLNL	510-422-6784
John Dawson	UCLA	310-825-7814
Paul Dusenbery	Space Science Inst.	303-492-2013
Tim Eastman	U. of Maryland	301-405-4829
David Forslund	LANL	505-665-1907
Russell Kulsrud	Princeton U.	609-258-????
Michael Lieberman	UC, Berkeley	510-642-7200
Richard Petrasso	MIT	617-253-8458
Stewart Prager	U. of Wisconsin	608-262-7768
Sherrie Preische	Cadarache, France	33-42-25-61-63
Barrett Ripin	APS	301-209-3233
Ned Sauthoff	PPPL	609-243-3207
Thomas Simonen	GA	619-455-3522
J. Leon Shohet	U. of Wisconsin	608-262-1191
Clifford Surko	UC, San Diego	619-534-6880

Nominations Committee

Keith Thomassen, <i>Chair</i> thomassen@llnl.gov	LLNL	510-422-9815
Paulett Liewer	JPL	818-354-6538
Wallace Manheimer	NRL	202-767-3128
Robert McCrory	U. of Rochester	716-275-4973

James Clerk Maxwell Prize

Noah Hershkowitz, <i>Chair</i>	U. of Wisconsin	608-263-4970
Alan Boozer, <i>Vice-Chair</i>	Columbia	212-854-4785
Herbert Berk	U. of Texas	512-471-1364
Frank Chen	UCLA	310-825-4163
Thomas Simonen	GA	619-455-3522

Excellence Award

Mordecai Rosen, <i>Chair</i>	LLNL	510-422-5427
Ian Hutchinson, <i>Vice-Chair</i>	MIT	617-253-8760
Ira Bernstein	Yale	203-436-0933
Joseph Kilkinney	LLNL	510-423-4213
James Van Dam	U. of Texas	512-471-6129

Simon Ramo Award

George Morales, <i>Chair</i>	UCLA	310-825-4318
Raymond Fonck, <i>Vice-Chair</i>	U. of Wisconsin	608-263-7799
Warren Mori	UCLA	310-206-0372
Roger Bengtson	U. of Texas	512-471-3943
Albert Simon	U. of Rochester	716-275-4431

Nicholson Medal for Humanitarian Service Award

Valerie Thomas, <i>Chair</i>	Princeton U.	609-258-4665
John Finn, <i>Vice-Chair</i>	LANL	505-667-8156
Yuri Orlov	Cornell	607-255-3502
Alvin Saperstein	Wayne State U.	313-577-2733
Thomas Stix	PPPL	609-243-2488

Important Deadlines for your Calendars—1996

Thirty-Eighth Annual Meeting of the Division of Plasma Physics, 11-15 November 1996 in Denver, Colorado. The meeting will be held at the Adam's Mark Hotel, Denver, Colorado. Dan D'Ippolito of Lodestar Corporation is the Chair of the Local Arrangements Committee.

The **deadline for invited and review paper nominations is Wednesday, 5 June 1996.** Nomination forms (revised) will be enclosed in the May Newsletter. Nominations should be sent to Saralyn Stewart, The University of Texas at Austin, Institute for Fusion Studies, 26th and Speedway, RLM 11.214, Austin, Texas 78712, phone: 512-471-4378, fax: 512-471-6715 (email: stewart@hagar.ph.utexas.edu).

The **deadline for abstracts of contributed papers is Wednesday, 10 July 1996.** A revised subject categories list, together with an abstract form (revised), will be mailed to all DPP members in our May Newsletter.

Other Relevant Meetings

1996 Joint April Meeting of the American Physical Society and the American Association of Physics Teachers, 2-5 May 1996 in Indianapolis, Indiana. There will be three plasma physics invited paper sessions at the Joint Meeting (see details at <http://www.aps.org>):

- Joint session with the Division of Beam Physics
- Joint session with the Division of Computational Physics
- Joint session with the Division of Astrophysics.

Transport Task Force Workshop, 13-16 March 1996, Doubletree Hotel, Philadelphia, Pennsylvania. Contact person: Ben Carreras, Oak Ridge National Laboratory, phone: 615-574-1292, fax: 615-576-7926, email: tatedj@fedc04.fed.ornl.gov.

in conjunction with

1996 International Sherwood Fusion Theory Conference, 18-20 March 1996, Doubletree Hotel, Philadelphia, Pennsylvania. Abstract deadline: Friday, 26 January 1996. Contact person: Morrell Chance, phone: 609-243-2641, fax: 609-243-2662, email: mchance@pppl.gov.

in conjunction with

5th Annual Numerical Tokamak Project Workshop, 20-21 March 1996, Doubletree Hotel, Philadelphia, Pennsylvania. Contact persons: Gregory Hammett or Wei-Li Lee, email: ghammett@pppl.gov or wlee@pppl.gov.

Synchrotron Radiation & Free-Electron Lasers, 22-27 April 1996, President Hotel, Grenoble, France. Contact person: S. von Wartburg, CERN Accelerator School, 41-22-7675460 or email: casgren@cernvm.cern.ch.

1996 APS/AAPT Joint Meeting, 2-5 May 1996, Indianapolis, Indiana. Contact: APS Meetings Department, Michael Scanlan, phone: 301-209-3286, fax: 301-209-0866, email: meetings@aps.org.

in conjunction with

annual meetings of the **Division of Astrophysics, Division of Computational Physics, and the Division of Physics of Beams.**

11th Annual Topical Conference on High-Temperature Plasma Diagnostics, 12-16 May 1996, Monterey, California. Contact person: Judy Knecht, phone: 510-422-5487 or email: knecht2@llnl.gov.

8th European Meeting on Solar and Heliospheric Plasma Physics, 13-18 May 1996, Thessaloniki, Greece. Contact: Department of Physics, University of Thessaloniki, phone: 30-31-998044, fax: 30-31-995384, email: spm-96@astro.auth.gr.

12th International Conference on Plasma Surface Interactions in Controlled Fusion Devices, 20-26 May 1996, France. Contact person: V. Poli, phone: 0033-42-256260, fax: 0033-42-256255, email: psi96@drfc.cad.cea.fr.

1996 International Seminar on Physics of High Energy Density Matter, 26-29 May 1996, Sheraton Landmark Hotel, Vancouver, British Columbia. Contact person: Andrew Ng, phone: 604-822-3191, fax: 604-822-5324, email: nga@physics.ubc.ca.

24th European Conference on Laser Interaction with Matter, 3-7 June 1996, Madrid, Spain. Contact person: E. Minguez,

minorities and women, child and elder care, communication in the workplace, and career development opportunities. Written summaries of these two PPPL programs are available from Mary Ann (masween@sandia.gov or 505-845-7307).

About 100-150 women and men attended the reception, which was cosponsored by the APS Committee on the Status of Women in Physics (CSWP). Linda Vahala, who has organized the Women's Reception at the DPP annual meeting since 1991, is the new member-elect of CSWP representing DPP. The reception program this year was organized by Martha Redi of PPPL. CSWP materials were distributed as well as copies of an article by Kaitlin Duck Sherwood, entitled "Women in the Engineering Industry," that is accessible from the IEEE home page on the World Wide Web (<http://www.ieee.org>).

In addition to the reception, Martha Redi organized an informal "Dutch treat" luncheon for women plasma physicists on Monday. The discussion subject was the findings of the committee formed by Judy Franz and Mildred Dresselhaus, MIT professor and former President of APS, to evaluate the climate for women students and faculty through site visits to ten research physics departments. The site visits were funded through a National Science Foundation grant. Important ingredients of a good climate for women include the presence of a sufficient number of women students and of women physics faculty and a department chairman who cares about students in general and is proactive in identifying and correcting inequities and unpleasant situations. ☪

Mary Ann Sweeney
Sandia National Laboratories



Proposed APS Topical Group on Low Temperature Plasma Science

The recent growth of interest in plasma processing has identified many research challenges in low temperature plasma science. However, this is a highly interdisciplinary field, involving atomic, molecular, optical, and plasma physics, gas-phase and surface chemistry, as well as electrical, chemical and mechanical engineering. The APS has suggested the formation of a new topical group to inform and assist physicists interested in this field. This

suggestion is being pursued by the organizers of the Gaseous Electronics Conference, in consultation with DPP, Division of Atomic, Molecular, Optical, and Plasmas and the Forum on Industrial Applications. DPP members who wish to become founder members of this group, and so influence its growth, should contact Norman Bardsley by email (bardsley1@llnl.gov) or by fax (510-424-4320). ☪



Plasma Astrophysics Working Group

This group has recognized that there have been continuous exciting new discoveries that have shaken the astrophysical community in recent years. At the same time many new discoveries often defy the traditional (i.e., non-plasma physical) analysis and interpretation, leaving the community in exasperation. The field of plasma astrophysics needs to help meet this challenge.

Organizing a working group will help identify the crucial and pressing plasma astrophysics frontiers that cry for research and resolution. This group will bring back a balance, or tradition, that the "main line" plasma physics and astrophysics had more strongly coupled, a kind of tradition of Lyman Spitzer, the late H. Alfvén, and S. Chandrashekar.

The working group will report its findings of intellectual foci of current topics in plasma astrophysics. Also, the group plans to have wider community involvement, APS joint sessions, and intercommunication with the astronomers/astrophysicists.

The chairman of the group is Toshi Tajima (ttt@dino.ph.utexas.edu). Bruno Coppi (coppi@pfc.mit.edu) and Russell Kulsrud (rkulsrud@astro.princeton.edu) are members.

The working group co-organized the DAP and DPP session at the APS/AAPT Joint Meeting in Indianapolis on May 3, 1996 (W. Haxton and T. Tajima, co-organizers). The group also plans to help coordinate the Institute for Theoretical Physics Workshop on Magnetohydrodynamics in Astrophysics in 1997-1998 to be held in Santa Barbara, California. The group encourages your inquires and participation in these and other activities. ☪

Minutes of the DPP Executive Committee Meeting

Sunday, 5 November 1995
Galt House Hotel
Louisville, KY

Officers:

Stewart Prager, Chairman
Richard Hazeltine, Chairman-Elect
Mary Ann Sweeney, Secretary-Treasurer
William Kruer & Barrett Ripin, Past Chairmen

Executive Committee:

Douglass Post (11/95), Leon Shohet (11/95)
Steven Gitomer (11/95), Ned Sauthoff (11/96)
James Drake (11/96), Miklos Porkolab (11/96)
Peter Politzer (11/97), Sherrie Preische (11/97)

Divisional Councillor:

Roy Gould (1995-1997)

Incoming Officer:

Nathaniel Fisch, Vice-Chairman

Incoming Divisional Councillor:

Bill Kruer (1996-1998)

Incoming Members:

Donald Batchelor (11/98)
Fred Driscoll (11/98)
Barbara Schrauner (11/98)

Committee Chairmen:

Herbert Berk (Interdivisional and Public Affairs)
William Dorland (Human Rights)
James Rome (1995 Local Arrangements)
Dan D'Ippolito (1996 Local Arrangements)
Earl Scime (Concerns of Young Scientists)

APS Representatives:

Judy Franz (Executive Officer), Barrett Ripin (Associate Executive Officer), Michael Scanlan (Meetings Manager)

Guests:

Norman Bardsley (LLNL), Bruno Coppi (MIT), Timothy Eastman (Univ. Md.), Ronald McKnight (Office of Fusion Energy), Jan Hugill (European Physical Society Representative), Saralyn Stewart (Administrator/Editor DPP Newsletter)

The Meeting was called to order at 3:20 p.m. by Stewart Prager.

Division Election--Prager:

Because our membership increased to over 6% of the APS total [6.15% as of 12/31/95], we have an

additional Divisional Councillor, Bill Kruer (LLNL). Nat Fisch (PPPL) is our new Vice Chairman. Mary Ann Sweeney was re-elected Secretary-Treasurer. New Executive Committee (Ex Com) members are Don Batchelor (ORNL), Fred Driscoll (UCSD), and Barbara Abraham-Shrauner (Washington Univ.). A smaller fraction (15% vs 25%) of the DPP membership voted compared to last year. As in the previous two years, the election was close.

Executive Committee Minutes--Sweeney

The minutes from the April 20, 1995 Ex Com were approved.

Secretary-Treasurer Report--Sweeney

Action items from the last meeting were reviewed briefly. A table of DPP registration numbers and fees from 1986 through 1995 was distributed as well as a table listing the year and location of the DPP meeting, beginning with the first one in 1959, vs attendees, dates, and number of contributed and invited papers. Total preregistrants for DPP 95 are 996 from the U. S. and 75 from overseas. Actual attendance is expected to be between 1250 and 1300. Total preregistration income is \$210,960, with 60% of this paid by credit card. As of September 30, 1995, the total in the DPP treasury (excluding preregistration fees) is \$224,108.25. Of this amount, \$365.74 is in a local checking account and the rest in an APS central account earning interest at about 7%. Annual income is about \$25,000. In the past fiscal year, which ended September 30, \$10,004 of the income was from membership dues. Bills in the amount of \$12,000 will be paid soon.

International Cooperation--Prager

Stewart Prager represented DPP as a member of the Program Committee of the European Physical Society Plasma Physics Division (EPS-PPD).

Interdivisional and Public Affairs--Prager, Berk

Stewart described the *Statement on the Scope of Plasma Physics Research* developed by Herb Berk's committee. The statement was advertised in APS News and distributed to DPP members with the August 1995 DPP Newsletter. The committee is beginning work on a shorter brochure, costing \$20-\$30K and with graphics and less text, for distribution to the general public.

For the past year DPP focused on interactions with funding agencies. It is now time to concentrate on communicating plasma physics research to the public. Part of this effort includes the Tuesday evening museum open house at the Louisville Science Museum. This is the second year Sherrie Preische and Bob Heeter (PPPL) have organized this event. A local

science museum is rented, at a cost of about \$1500, and special displays and lectures are open to the public. This year's sponsors are the Institute for Fusion Studies at the University of Texas in Austin, General Atomics, LLNL, PPPL, and DPP. Last year the topic was fusion and included the Electric Space exhibit; this year the topic is plasma physics and three speakers are giving presentations: Ramon Lopez (APS Director of Education and Outreach) on plasmas in space, Leon Shohet (U. of Wisconsin) on plasmas on the earth, and Dale Meade (PPPL) on fusion plasmas.

A subcommittee of five or six people will be formed by Stewart Prager and Richard Hazeltine to organize the annual science evening for the public in conjunction with the 1996 DPP Annual Meeting. Because Sherrie is in France and Bob Heeter is writing his thesis, it is difficult for them to continue this effort. Representatives from institutions giving posters in the Educational Outreach session were recommended as appropriate members.

Public Relations Coordinator--Prager

The public relations coordinator, Richard Petrasso (MIT) fields questions from the public and media and communicates significant new results. He will develop, with the help of Ex Com members, a list of potential plasma physics articles for Physics Today.

DPP Fusion Statement--Sauthoff

Ned Sauthoff, Doug Post, and Sherrie Preische presented a five-page fusion statement intended for Congress, the Department of Energy (DOE), etc. They received two responses from Ex Com to the initial draft and need guidance because of the rapidly changing political climate. Discussion included: length and purpose of the statement, its role compared to the PCAST (President's Council of Advisors on Science and Technology) document, background provided, whether specific recommendations on funding and a schedule for a fusion power plant should be made, whether the statement would be viewed as "self serving," importance of brevity and stating the goal and intent of the statement at the beginning, desirability of emphasizing the synergy between plasma physics and fusion, and whether such a statement would be more effective if endorsed by several societies (e. g., IEEE, APS, ANS).

Judy Franz explained that such a statement could be issued as a DPP endorsed statement, as an Executive Board statement endorsed by the APS President, or as a statement endorsed by the APS Council. Judy recommended a DPP-issued document and a Council-issued statement. As a DPP statement, it would be reviewed by Judy. This is a fairly quick procedure to ensure that the statement is factually correct and does not create antagonism between different APS units. As

an APS Council statement, it would be one paragraph to one page in length. The Panel on Public Affairs, which meets in January, would need to approve it, as would the Council itself, which meets in May.

The draft of the five-page statement will be distributed at the DPP open business meeting. Ex Com members should relay their comments to Ned Sauthoff within the next two weeks. Saralyn Stewart will poll Ex Com by email at the beginning of January.

Report on IEEE Activities--Sauthoff

Ned Sauthoff is chairman of the IEEE-USA Energy Policy Committee. A two-page letter from Joel Snyder, Vice President of IEEE-USA, was sent to the House-Senate Conference Committee on the Energy and Water Development Bill. The letter expressed particular concern about budget cuts for fusion, solar, and renewables, because of the threat to national security, competitiveness, and the environment. Several statements were sent in the April/May time period. A new version of the annual fusion statement is being prepared and sent for review by relevant IEEE technical societies and committees before being presented to Congress in the spring.

Nominations for APS-Wide Committees--Prager

Two DPP members were successfully nominated: Linda Vahala for the Committee on the Status of Women in Physics and Don Correll for the Committee on Education. Typically, 20 to 40 nominations are received for each position. Andy Sessler of the Division of Physics of Beams is the new APS Vice President.

Initiatives for Plasma Physics Support--Prager, Hazeltine

DPP had efforts to increase research funding through letters and visits to Congress, the Office of Fusion Energy (OFE), the National Science Foundation (NSF), Basic Energy Sciences (BES), and the National Institute of Standards and Technology. The letters included one from Frans Sluijter, chairman of the EPS-PPD, to Senator Bennett Johnston that expressed grave concern about the international impact of cuts in the U.S. fusion program.

In an April visit to NSF, Bob Eisenstein was enthusiastic and suggested the creation of an interagency advisory committee (between NSF and DOE) on plasma physics. Barry Schneider of NSF is writing a piece on the role of NSF in plasma physics and has contacted Stewart. According to Ron McKnight, coordination through an interagency advisory committee would prevent duplication of effort but such meetings have been held for several years and would not necessarily result in more funding. (At

present, total NSF funding is \$100M, with about \$2M for plasma physics.) A perceived difficulty is that BES and NSF may assume all plasma physics funding is from DOE through fusion research. Martha Krebs (DOE) is receptive to the funding of plasma physics research outside of fusion. Iran Thomas (BES) will consider plasma physics proposals that assist in the goals of waste clean up, new methods to produce energy without waste, and the clean automobile.

Stewart and Leon Shohet emphasized the importance of compiling a list of the ten most important technical challenges in plasma physics and communicating how solutions to these would benefit national goals. A difficulty of the present political climate is that the administration and the President are pushing technology, while Congress supports basic science but not technology.

DPP Fusion Advisory Group--Prager

Stewart proposed a DPP advisory group to provide Anne Davies, of the OFE, with objective advice based on the scientific judgment of the plasma physics community. The 15-member group would differ from the Fusion Energy Advisory Committee, which includes nonscientists as well as scientists not involved in fusion. The DPP chairman would be a member. The advisory group would be composed of leading theorists and experimentalists (as opposed to program administrators) and scientists outside the magnetic fusion community. Positive and negative comments were made on the proposal. Judy Franz explained that such a group would need to be "freestanding" rather than DPP related. Other considerations included time, cost, and difficulty of organizing such a group; desire for a group that would give purely scientific advice, but the reality that the recommendations made could be highly political; the need to include materials scientists, engineers, and chemists in addition to physicists; concern that existence of such a group with DPP endorsement could be labeled DPP as a fusion division of APS rather than a plasma division. It was decided to not form the group. Instead, Stewart will inform Anne Davies of the Ex Com's endorsement of the need for a magnetic fusion review committee, and tell her we are willing to help.

Proposed Topical Group on Low-Temperature Plasmas--Bardsley

The Gaseous Electronics Conference (GEC) is chiefly concerned with physics and applications of ionized gases and has met for 48 years. Norman Bardsley is the current chairman. For ten years, GEC has been an APS topical conference sponsored by Division of Atomic, Molecular, and Optical Physics (DAMOP). Two thirds of the papers are associated with low

temperature plasmas (e. g., material processing and waste processing).

GEC organizers were approached by APS about forming a topical group because of the interdisciplinary nature of the field, which includes researchers in DAMOP, DPP, Division of Chemical Physics, Division of Condensed Matter, engineers, and members of the American Vacuum Society (AVS). The topical group would be the parent APS unit for GEC and would assist divisions and forums in organizing plasma processing sessions at meetings, encourage communication among scientists in different applications, and work with other societies to avoid meeting conflicts. (Currently AVS, GEC, and DPP hold meetings within four weeks of each other.) Forming a topical group requires endorsement by 200 APS members. The name of the group has not been decided.

The purpose of the presentation was to determine DPP's concerns, ask for approval to put a paragraph in our newsletter on the proposed group, and solicit one or two DPP volunteers to join in forming the topical group.

Management of DPP Meeting--Prager

Since 1988 the APS Meetings Department has managed the meeting, including registration, site negotiations, satellite meetings, audiovisual arrangements, etc. Saralyn Stewart handles abstract sorting and the Austin Program Committee Meeting, and she prepares the meeting announcement for the DPP Newsletter and APS News. Both Saralyn and Michael Scanlan submitted proposals to manage the 1996 DPP meeting in Denver. The Meetings Department fee for 1995 is \$30,000; the fee would be the same for 1996 or would be decrease by \$5000 if the 2000 site selection is postponed until 1997. A lower fee could be negotiated if some tasks are assumed by Saralyn. A subcommittee, chaired by Bill Kruer and consisting of Sweeney, D'Ippolito, and Rome, was formed to consider the proposals.

Hotel Room Rates--Hazeltine

Richard Hazeltine favors not subsidizing sleeping room rates by increasing registration fees. After discussion, however, this item was dropped because most of those present appeared to favor continuing the subsidization when conditions warrant.

Three-Year Rule for Invited Speaker Selection--Hazeltine

The following **motion** was made (Hazeltine, Sauthoff) and passed: **No one can give an invited or review talk at a DPP annual meeting if he or she has given one within the last three years at a DPP annual meeting.** The

Program Committee chairman has discretion to bypass this recommendation in unusual circumstances.

Membership Recruitment--Stewart

Total DPP membership is 2217 as of October 1, 1995 [2511 as of 12/31/95]. New members include 67 through preregistration and 9 through the member-get-a-member campaign. It is important to maintain our membership level: having > 6% of the APS total allows us to have two Councillors and increases the number of Fellow slots available to DPP members.

1995 Louisville Program Committee--Hazeltime

1490 abstracts were received with 27% submitted electronically. The poster to oral contributed ratio is 7.3:1.

ISF Travel Grant Program--Stewart

Funds were provided 21 Russians to attend the meeting through the International Science Foundation. Conditions of the grant program have changed, with only travel being paid. DPP paid on-site expenses (three scientists per room), a \$25/day food allowance, and waived the registration fees. These are the new grant requirements in order for ISF to pay travel.

1995 Local Arrangements Committee--Rome

A 15 foot screen instead of a 12 foot one is being used in plenary sessions because of the high ceiling. Only two computer exhibits are present (by Hewlett Packard and Mission Research Corporation). A national park on the river is nearby, and a Shaker village is in Pleasant Hill.

1996 Local Arrangements Committee--D'Ippolito

The hotel for DPP96 in Denver recently changed ownership from Radisson to the Adam's Mark. A renovation will be ongoing during the meeting. The meeting space is on four levels. The sound level in the poster areas is of concern, even though these are carpeted, because ceiling heights are 9.5 and 11 feet. The hotel is adjacent to a new mile-long pedestrian mall, and the Denver Art Museum and the Performing Arts Center are nearby. One-way cab fare to the airport is \$45; a shuttle is \$15.

1996 Joint Spring Meeting Program in Indianapolis, 2-5 May 1996--Hazeltime

DPP will join with three divisions at the APS/AAPT Meeting. A joint symposium with Division of Astrophysics on magnetic fields in astrophysics, a joint session with Division of Physics of Beams, and a joint session on plasma processing with Division of Computational Physics.

2000 Site Selection Committee--Sweeney, Krueer

A spread sheet listing possible sites was distributed and Ex Com attendees asked to return the sheet with comments and additional suggestions. In the future it would be wise to visit sites during the time of year (winter) when the meeting is held in order to reduce airline ticket costs and experience the seasonal local ambience. Site selection for 2000 will be deferred until 1997.

APS Executive Office--Franz

DPP members are urged to talk with their Congressmen about issues of importance to the physics community; such interactions at the local level are believed to be more influential than letter writing. 300-400 APS members have agreed to serve in this capacity on a regular basis; more DPP members are particularly needed. We should ask APS for assistance with DPP events that involve Congressional and administration interactions. APS recently sponsored a special reception for Vern Allers, the only physicist presently in Congress.

Beginning this year, only electronic abstracts will appear in the Bulletin. (Only the title and author will appear in the case of paper-submitted abstracts.) DPP should make use of the APS database to communicate electronically with members. APS has recently added information on jobs and career development to the APS home page (<http://aps.org>). We are encouraged to add like information to the DPP home page (<http://w3fusion.ph.utexas.edu/aps>).

Electronic Publishing--Ripin

Physical Review Letters (PRL) is experimenting with the use of review panels to reject inappropriate papers. The major expense of journals is the refereeing process. PRL is online with 800 subscribers; all AIP journals will probably be online within five years. The coupling of preprint submission to a server with journal submission is being considered, with allowance for comments from readers that could be forwarded to authors and/or referees. It is expected that journal page charges will be eliminated over the next three to four years.

Plasma Physics Representative for IUPAP--Franz

As secretary of the US Liaison Committee on International Union of Pure and Applied Physics (IUPAP), Judy asked that we find someone to represent DPP on the Commission on Plasma Physics, particularly someone from industry. The commission sponsors the International Conference on Phenomena in Ionized Gases. Miklos Porkolab has served on the commission, but cannot continue to serve unless elected secretary or chairman.

Publications Committee--Post

The time from submission to acceptance for Physics of Plasmas (POP) manuscripts decreased from 6.9 months in 1990 to 3.5 months in 1995, in spite of an increase in manuscripts published (372 in 1990 and 564 in 1995) and an increase in foreign author submissions to 47%. Mike Desjarlais and Kimitaka Itoh are new associate editors. Submissions to PRL increased 4%; submissions to POP increased 3%. The overall acceptance rate for PRL is 35%, with 50% for plasma physics submissions.

Doug Post, Dave Forslund, and Jim Rome distributed a handout to the DPP membership that discusses procedures for using the electronic preprint server developed by Paul Ginsparg (<http://xxx.lanl.gov>) and is supported by NSF. The subcommittee tested the server in UNIX, PC, and Mac environments. The server handles thousands of papers a month. Advantages include wide, rapid, and inexpensive distribution of preprints. Current disadvantages include incompatibility with non-UNIX environments and limits on file sizes. DPP has arranged to set up a plasma physics section on the server.

Fellowship Committee--Hazeltine

15 DPP members achieved Fellow status in 1995.

Concerns of Young Scientists: Career Development Task Force--Scime

A mini-workshop on career opportunities at four year colleges and small universities, featuring five speakers, will be held at DPP95. The workshop will be an annual event; the focus next year will be industrial plasma science. Five California plasma processing firms were contacted and indicated large backlogs in employment positions. However, these employers were not formally contacted by the American Institute of Physics and may not come to the meeting.

New Committee Chairmen--Prager

New chairmen are Keith Thomassen (LLNL), Nominations Committee; Noah Hershkowitz (U. of Wisc.), Maxwell Prize; Mordecai Rosen (LLNL), Excellence Award; George Morales (UCLA), Simon Ramo Award; Valerie Thomas (Princeton), Nicholson Medal.

Plasma Science and Technology Coordination--Eastman

Tim described the Plasma Science and Technology home page (<http://www-plasma.umd.edu>) and the moderated news group (sci.physics.plasma). A booth will be manned in the registration area to solicit new ideas. A 1/2 page write up will be generated on each plasma science and technology topic on the home page. Tim asked Stewart Prager to write a letter

endorsing his efforts. The best NSF contacts are now Virginia Ayres, program director for Quantum Electrodynamics, Waves, and Beams, and Barry Schneider of the Physics Division.

Prizes and Awards--Ripin

TRW will only fund the Simon Ramo award one year at a time. The award is funded for 1996. Barrie Ripin and Peter Politzer are seeking a new donor who can make the minimum five year commitment APS requires. DPP should be sensitive to the APS Executive Board opinion that it is inappropriate to have a large number of people receive an award. (This year, the Excellence in Plasma Physics Award had nine recipients.) The new recipient of the Nicholson Medal, Yuri Orlov, will receive the award at the APS/AAPT Meeting in Indianapolis.

1999 Centennial Celebration Report--Drake

The celebration will be a major part of the combined general March and Spring meeting of the society, to be held 20-26 March 1999 in Atlanta. APS units have agreed to contribute to the centennial program. The celebration (banquet, international session, Nobel Prize recipient session and exhibits, and science museum open house and buffet) will be Saturday and Sunday prior to the joint meeting. Two additional centennial plenary sessions will be Monday and Tuesday. Other possibilities include a centennial speakers bureau, a history of physics wall chart, a centennial stamp, a history of women in physics in the 20th century, and exhibits on the role of physics in 20th century technological development.

DPP Newsletter and APS News--Stewart, Hazeltine

The DPP Newsletter appears in January, May, and August. Information about the DPP annual meeting is in the May and August issues of the newsletter and the May and October issues of *APS News*. The decision was made to not mail out a poster advertising the 1996 DPP.

Interactions with Chemists and Material Scientists--Shohet

An agreement has been established with the American Vacuum Society, the American Chemical Society, and the Materials Research Society to exchange information on scientific meetings. Leon hopes to have a symposium involving talks by chemists and material scientists for DPP96.

Site for 1996 Spring Ex Com Meeting--Prager

The next Ex Com meeting will be in conjunction with the May APS/AAPT General Meeting in Indianapolis.

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November 1994 to November 1995

Compiled by: John D. Sethian, DPP Publication Committee

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- Amatucci, William; Experimental Observation of Ion-Cyclotron Turbulence in The Presence of Transverse Velocity Shear. West Virginia University, 1994. GAX94-27947.
- An, Jae-Soon; Linear Stability of Axial Flow Along The Exterior of a Long Cylinder. Stevens Institute of Technology, 1994. GAX94-32253.
- Armale, Ron; Fast Magnetic Field Penetration into a Plasma. The University of California, Irvine, 1994. GAX95-06805.
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- Bao, Zhuoyu; Focused Ion Beam Micromachined Unstable Resonator Semiconductor Lasers. Oregon Graduate Institute of Science and Technology, 1995. GAX95-20646.
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19. Candy, Jeff; Kinetic Theory of Toroidal Alfvén Eigenmodes. The University of California, San Diego, 1994. GAX95-13765.
20. Cao, Xiang-Dong; Propagation of Ultrashort Optical Pulses in Nonlinear Media and Their Applications. The University of Rochester, 1995. GAX95-23129.
21. Carlson, Henry A; Direct Simulation of Laminar and Turbulent Flow in a Channel with Complex, Time Dependent Wall Geometries. Cornell University, 1995. GAX95-27345.
22. Castle, George; The Dynamics of Plasma Pellet Injection in TEXT. University of Texas at Austin, 1994. GAX95-19257.
23. Chen, Hong; X-Ray Emission From Picosecond Laser Plasmas. The University of Rochester, 1994. GAX95-10564.
24. Chia, Ping; Stochastic Ion Heating and Anomalous Transport in Plasmas Caused by Nonlinear Electrostatic Perturbations and Elastic Scattering. The University of California, Los Angeles, 1994. GAX95-17771.
25. Ching, Chi; Dynamics of Laser Ablation in Gaseous and Plasma Environments. University of Michigan, 1994. GAX95-13326.
26. Chiu, Gordon; Studies of Magnetized Plasmas Interacting with Neutral Gas. Princeton University, 1995. GAX95-20957.
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28. Collins, Richard; An Investigation of The Impurity Emission Asymmetries in TEXT-U. University of Texas at Austin, 1994. GAX94-28487.
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30. Crawford, Mark; A Coaxial Virtual Cathode Oscillator High Power Microwave Source. Texas Tech University, 1994. GAX95-13741.
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33. Currie, Edward; The Helical Instability in The Cesium Magnetoplasma. University of Miami, 1994. GAX94-32478.
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41. Everett, Matthew; The Physics of Beat-Excited Plasmas. The University of California, Los Angeles, 1994. GAX95-08694.
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49. Haines, Donald; A Portable Ionosonde Using Coherent Spread-Spectrum Waveforms for Remote Sensing of the Ionosphere. University of Lowell, 1994. GAX94-30335.
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55. Hoyt, Robert; Optimization of Applied Magnetic Nozzles for Coaxial Plasma Accelerators. University of Washington, 1994/. GAX95-23697.
56. Huang, Yen-Chieh; Design and Characterization of a Subcompact, Far Infrared Free Electron Laser. Stanford University, 1995. GAX95-16841.
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APS-Division of Plasma Physics Newly Elected Fellows

(December 31, 1995)

Steven L. Allen—Lawrence Livermore National Lab

For scientific leadership in the physics of tandem mirrors, generation of intense microwave pulses and their absorption in tokamak plasmas, and in the development of the radiative divertor.

Ian Gordon Brown—Lawrence Berkeley Laboratory

For significant contributions to applied plasma physics, particularly its use in materials sciences and surface modification as well as development and study of Sepel ion sources.

Christopher E. Clayton—University of California, Los Angeles

For outstanding contributions to the understanding of relativistic wave-particle interactions and demonstration of electron acceleration by beat-excited plasma waves.

Joel Fajans—University of California, Berkeley

For important basic experiments with free electron lasers and nonneutral plasmas.

Taik Soo Hahn—Princeton Plasma Physics Lab

For outstanding contributions to progress in understanding anomalous transport and enhanced confinement regimes in toroidal plasmas through nonlinear analysis of microinstabilities and the development of the toroidal gyrokinetic formalism.

Malcolm Golby Haines—Imperial College, ENGLAND

He has led the Imperial College Group from the 1970s and has made major contributions to Z-pinchs, theta pinchs, cusp confinement, inertial confinement and magnetic fields, and stability theory.

Yoshiaki Kato—Osaka University, JAPAN

For development of beam smoothing techniques and high power lasers and demonstration of their effectiveness for irradiation uniformity improvement and plasma instability suppression; and for his contributions to x-ray lasers.

Brian J. MacGowan—Lawrence Livermore National Laboratory

For developing and demonstrating short wavelength x-ray lasers and for optimizing and characterizing the plasma x-ray amplifier.

Janardhan Manickam—Princeton Plasma Physics Lab

For his extensive contributions to the understanding of magneto-hydrodynamic plasma processes, discovery of the “infernal mode,” and stewardship of the PEST code—a universal tool for assessing tokamak stability properties.

Michael E. Mauel—Columbia University

For investigations of new, high poloidal beta tokamak operating regimes using modified current profiles and for the investigation of collisionless instabilities of magnetically trapped, hot electron mirror plasmas.

Bruce Remington—Lawrence Livermore National Lab

For exceptionally thorough experiments clearly demonstrating the ablative stabilization of the Rayleigh-Taylor instability in x-ray accelerated targets and for quantitative comparison with theory.

Charles Wayne Roberson—Office of Naval Research

In recognition of his seminal contributions to free electron laser beam quality, stellarator focusing of intense beams and outstanding beam plasma experiments.

Ned Robert Sauthoff—Princeton Plasma Physics Laboratory

For seminal contributions to the application of X-ray diagnostics to the study of sawteeth and disruptions in tokamaks, and for distinction in the leadership and management of important research projects.

Ker-Chung Shaing—Oak Ridge National Laboratory

For his seminal theoretical contributions to neoclassical transport in non axisymmetric toroidal plasmas, to the connections between neoclassical and turbulent transport and to the theory of L-H transitions in toroidal plasmas.

Edward J. Strait—General Atomics

For his contributions to the understanding and improvement of the stability of high beta tokamak plasmas.

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