DPF NEWSLETTER - December 31, 1996

To: Members of the Division of Particles and Fields

From: Jonathan Bagger, Secretary-Treasurer, bagger@jhu.edu

1996 DPF Elections

Howard Gordon was elected Vice-Chair of the DPF. Pat Burchat and Kay Kinoshita were elected to the Executive Committee. The 1997 members of the DPF Executive Committee and the final years of their terms are

Chair: Paul Grannis (1997)
Chair-Elect: Howard Georgi (1997)
Vice-Chair: Howard Gordon (1997)
Past Chair: Frank Sciulli (1997)
Secretary-Treasurer: Jonathan Bagger (1997)
Division Councillor: Henry Frisch (1997), George Trilling (1998)
Executive Board: Pat Burchat (1999), Tom Devlin (1998), Martin Einhorn (1997), Kay Kinoshita (1999), John Rutherfoord (1997), Heidi Schellman (1998)

Treasurer of APS

Harry Lustig retired as Treasurer of the APS on November 11. At its December meeting, the DPF Executive Committee approved the following statement:

The Division of Particles and Fields recognizes the important contributions of Harry Lustig to the American Physical Society and all its members. During his tenure as Treasurer, the Society has regained a sound financial basis through his dedicated and prudent judgment. His counsel has been important far beyond the financial realm. The DPF Executive Committee wishes to sincerely thank him for his many contributions to all its member scientists.

Lustig has been replaced by Thomas McIlrath, Associate Dean for Research and Graduate Studies at the University of Maryland, College Park. McIlrath is a professor in the Institute for Physical Science and Technology at the University of Maryland and a staff physicist for the National Institute of Standards and Technology in Gaithersburg. He is an active member of the APS Division of Laser Science, which he chaired in 1988.

Editor-in-Chief of APS

Ben Bederson will retire as Editor-in-Chief of the APS on December 31. At its December meeting, the DPF Executive Committee issued the following statement:

The Division of Particles and Fields wishes to express its gratitude to Ben Bederson for his many years of service to the American Physical Society as Editor-in-Chief. During his tenure, the APS journals have grown in size and in influence. He has provided sound judgment essential for the journals to meet the needs of the community. His service to the scientific community stands as an example for us all; the DPF Executive Committee sincerely thanks him for his many contributions to all its member scientists.

Bederson will be replaced by Martin Blume, who recently stepped down as Deputy Director of Brookhaven. Blume met with the DPF Executive Committee in December. He saw several important challenges in his new position:

1. To sustain and strengthen the quality and financial viability of the APS journals, while keeping costs to members and libraries down;
2. To move aggressively towards full electronic availability of publications;
3. To extend the international importance of American Physical Society publications by working closely with colleagues worldwide.

Blume noted that members of the APS are in the forefront of electronic publication and the development of the information superhighway, and that this leadership position must be exploited fully.

Joint Meeting of the APS/AAPT

The 1997 Joint Meeting of the APS/AAPT will be held April 18-21, 1997 (Friday to Monday morning) in Washington, DC. The DPF plans topical sessions with a full range of invited talks. These include joint sessions with the Divisions of Astrophysics, Nuclear Physics, Beams and the Gravitation Group, as well as dedicated DPF sessions on current issues in Heavy Quarks, Flavor Physics, New Phenomena and the Standard Model. There will be a session on Frontiers in Physics, joint with the Forum on Education, which will feature two talks, one by Edward Witten on the current excitement in string theory and the other on Bose-Einstein condensation. There will be a special prize session with talks by the winners of this year's Panofsky and Sakurai prizes.

Parallel sessions, scheduled so as not to compete with invited talk sessions, will be held to accommodate contributed papers. The deadline for submission of abstracts for contributed papers is January 17, 1997 (in the APS headquarters). Electronic submission of abstracts is strongly encouraged to facilitate organizing the parallel sessions (see http://www.aps.org/.) Information on the DPF sessions will be posted at http://www.aps.org/units/dpf/april97/.

DPF 96/98

DPF 96 was held August 10-15, 1996 at the University of Minnesota in Minneapolis. By all accounts, the meeting was a great success. The DPF Executive Committee wishes to thank the local organizers, especially Ken Heller and Marvin Marshak, for running such a successful event.

The next Divisional Meeting will be held in 1998 or 1999. The DPF Executive Committee is presently seeking a host institution. Please contact Paul Grannis with proposals or suggestions.

Associate Director of HENP at DOE

Martha Krebs, Director of the Office of Energy Research at the Department of Energy, has issued a statement announcing Dr. Peter Rosen as Associate Director for High Energy and Nuclear Physics. On behalf of DPF, Frank Sciulli has sent the following letter to Dr. Rosen:

On behalf of the Division of Particles and Fields, I would like to offer you congratulations on your new appointment as the Associate Director for High Energy and Nuclear Physics at the Department of Energy. At this crucial time for basic research, it is essential that the best people are representing its interests in government.

We believe your many years of innovative research will stand you in good stead in your efforts to define and maintain the DOE role in nuclear and particle physics research in the U.S. The long history of fruitful interactions and collaboration on physics and governance in our field assure your colleagues that you will bring great energy and a clear perspective to this crucial job. We in the DPF offer our support and help as you take on these new responsibilities.

Chairman of HEPAP

Michael Witherell, the new Chairman of HEPAP, asked the DPF Executive Committee to transmit the following message to DPF members:

I have just started a three-year term as chairman of HEPAP, the Department of Energy's High Energy Physics Advisory Panel. In discussing the role of HEPAP with colleagues, it has become clear that its purpose and mode of operation are not understood by the majority of the high energy physics community. This is not a healthy situation, since the panel represents our community to the agency that manages most of the high energy physics funding in the US. I am writing this note to communicate some basic information about HEPAP.

HEPAP reports to the Director of Energy Research at DOE, Martha Krebs. Its purpose is to provide advice on the Department's High Energy Physics Program. It also comments on issues related to the National Science Foundation Elementary Particle Physics program.

Because HEPAP is a standing panel of DOE, all meetings are announced in the Federal Register and are open to the public. Most of these meetings occur at one of the US accelerator laboratories or in Washington; occasionally they are hosted by a high energy physics group at a university. A few months ago, the Division of High Energy Physics at DOE established a home page, http://www.hep.net/doe-hep/home.html. From there one can follow a link to HEPAP NEWS, which provides a summary of the highlights of the last HEPAP meeting. HEPAP meets about four times a year. There is also a link to a list of HEPAP members.

In the report of the 1994 Drell subpanel, the function of HEPAP was summarized in the following way:

Traditionally, HEPAP has advised the Department of Energy on the overall quality of the research program as well as on how to balance initiatives for the future with a strong and diverse current research program within a given budget. In past years, before the Advisory Committee in Government Act (the so-called Sunshine Law), HEPAP was able to work in closed session, and even advised the Department of Energy during preparation of the program budget for a given fiscal year before it was announced. More recently, HEPAP has formed ad hoc subpanels that can work in private to recommend priorities and to review specific new initiatives and proposals in accord with budget guidance given by the Department of Energy.

In recent years, our field has suffered from the demise of the SSC as well as a steady decrease in operating funds. Most high energy physicists have had projects vital to their research canceled or substantially delayed. In this environment, it is important that the Division of High Energy Physics base its decisions about the distribution of scarce resources on the best advice available from the community. In particular, establishing scientific priorities is critical.

In the wake of the SSC, our community has withdrawn somewhat from participation in the process of setting scientific policy. If we want our field to prosper, we must reverse this trend. Members of the HEP community should inform themselves about the issues facing HEPAP and should communicate their views to a member of the panel. In addition, we must all seek channels through which to communicate the importance of our research to the public and to those who run the federal government.

I look forward to working with you to make sure that we are able to maintain the excellence of particle physics research in the U.S.

APS Electronic Publishing

There have been several recent developments with respect to the electronic editions of Physical Review D and Physical Review Letters:

1. Manuscripts can now be submitted to PRD and PRL using electronic forms, which are now available at http://publish.aps.org/ESUB/. They can be used to

- submit a manuscript from the Los Alamos e-print archive by citing its e-print number;
- submit a file by direct Web upload;
- generate a submission form to be used with email submissions.

Acceptable formats for electronic submission include RevTeX, LaTeX, Harvmac, and plain TeX.

2. The legal issues that prevented the distribution of Postscript files for PRD online have been resolved. Beginning January 1, 1997 both Postscript and PDF files will be available for all articles.
3. After January 1, 1997, the Tables of Contents and abstracts in PRD online will continue to be freely accessible. However, the full articles and the reference lists with links to the Los Alamos archive and to SPIRES will only be available to subscribers.
   - If your institution has a subscription to PRD online, you will be able to access the journal from any internet address at your institution.
   - Individual member subscribers to the printed version (either D1 or D15) can have free access until June 30, 1997 by registering and electronically submitting a subscription agreement. After registering, you will be given a password for access to the journal. The registration form can be reached from the PRD online home page, http://publish.aps.org/PRDO/prdohome.html.
4. As of January 1, 1997, PRL online will move to AIP's Online Journal Service. As a result of this change of vendors, current subscribers, both members and institutions, must register to retain access after January 1. Members can do this registration online. For information, and to register if you are a member subscriber to PRL online, see http://publish.aps.org/.

DPF Membership Drive

The DPF Executive Committee is beginning a drive to encourage membership in the APS and the DPF. As a member of the DPF, you already know about the benefits of membership. The Committee asks that you pass the following information on to your nonmember colleagues.

The DPF Executive Committee encourages all particle physicists to join the APS and the DPF. The APS is the primary professional society for physicists. It is engaged in the publication of journals, monitoring of significant happenings in Washington, advocacy for physics in the government, formulation of public positions on important topics, and efforts to increase public understanding of the impact of science in general and physics in particular. To represent the physics community effectively, the APS needs to include the points of view of all physicists, including those just starting their careers.

Membership in the APS brings the ability to vote for (or become one of) the representatives of the APS. It brings the right to submit one's own abstract and to pay less

for the Spring meeting. It also brings a subscription to Physics Today. Membership in the APS is free for students joining for the first time. After the first year, the cost for students rises to $25 for APS membership. Young scientists can join at the reduced rate of $45/year for up to three years after completion of their doctorate.

The DPF Executive Committee also encourages scientists to sign up for membership in the DPF, which is specifically concerned with research in elementary particles and fields. DPF Membership is free for graduate students the first year and only $6/year thereafter. The DPF is the only U.S. organization specifically created to inform and represent the particle physics community. The DPF is often asked to represent the Particle and Fields community by government and other agencies. Voting members of the DPF have a voice in important decisions that affect their work. To join the APS/DPF, one may access http://www.aps.org/memb/index.html. If one is already a member of the APS but not the DPF, one can join via http://www.aps.org/memb/unitapp.html.

Join the AAPT

The DPF Executive Committee wishes to encourage DPF members to join the American Association of Physics Teachers. The Committee feels that this is an especially important time to be an AAPT member. Not only have there been major curriculum reforms in closely related fields, such as calculus, chemistry and engineering, but there is serious debate about national standards for science teaching. The AAPT is in the middle of all this activity, and the DPF Executive Committee believes that anyone who teaches or intends to teach physics should have the opportunity to participate in this important debate.

Membership in the AAPT also brings a subscription to ``The Physics Teacher," which is a thought-provoking magazine full of practical suggestions for teaching. To join the AAPT, access http://www.aapt.org/membership/memapp.html and follow the directions.

NSF Initiative on Educational Outreach

The DPF Executive Committee has been advised of NSF plans to expand its outreach to educators and to the general public, particularly through the use of World Wide Web sites. The NSF Physics Division is encouraging proposals which seek to develop a broad appreciation of the work being done in physics.

The Executive Committee strongly endorses this initiative, even though the DPF itself is not organized so as to take a primary role in the development or coordination of the effort. Increased outreach by individual institutions and large experimental collaborations, in close cooperation with educators, can improve the general appreciation for fundamental science in our society. The Executive Committee has expressed its willingness to comment on and endorse proposals which seek to implement efforts to monitor and coordinate these efforts.

NSF Program on Research Experiences for Undergraduates

The National Science Foundation has asked the DPF Executive Committee to announce that the NSF makes possible a number of opportunities for undergraduates to join research projects each summer. The principal support by NSF of such activities is through the Research Experiences for Undergraduates Program. REU sites are established in all fields of science, mathematics, and engineering. Each site usually operates for about ten weeks in the summer, and consists of a group of ten or so undergraduates, who work in the research programs of the host institution.

Students are in general accepted from throughout the country -- most come from schools other than the host institution. Each student is assigned to a specific research project, where he/she works closely with the faculty, post-docs and graduate students. Students are granted stipends, and in some cases assistance with housing and travel. Women and members of under-represented minorities, and those with disabilities or special needs, are particularly urged to apply. The complete list of these sites can be obtained at http://www.nsf.gov/cgi-bin/getpub?reulist.

The NSF Divisions of Physics, Materials Research, and Astronomical Sciences support a total of over 100 such sites each summer. Most of these sites cover a broad range of physics-related subjects, and each site usually includes research topics typical of several APS Divisions. Several of them include research in elementary particle physics. The DPF Executive Committee encourages the DPF members and their students to participate the REU program.

Electronic Issues

The DPF is now communicating with its members by email. If you have not received any communications, it means that you have an obsolete email address on file with APS.

You can update your email address on-line from the APS home page, http://www.aps.org/. The userid for the Online Member Directory Search is ``directory,'' and the password is ``F=ma.'' Please be sure to use a valid internet address. Do not use bitnet or hepnet/decnet.

Note that because of the links to conference servers, the conference listing is no longer included with this newsletter. Short conference announcements are sent to DPF members by email, and full conference listings may be accessed from the the DPF Conferences page, http://www.aps.org/units/dpf/conferences/index.html.

1997 Sambamurti Memorial Lecture

Brookhaven National Laboratory is seeking nominations for the 1997 Sambamurti Memorial Lecture. This is a prize lectureship established in memory of Aditya Sambamurti, a young high energy experimentalist working on rare kaon decays at the BNL AGS, who died in 1992. It is to be awarded yearly to a young (under 40) high energy or heavy ion experimentalist of outstanding achievement. The lecture, which should describe the work for which the lecturer is being honored, is to be delivered to

students working at BNL during the summer. The 1997 prize is $500. Please send nominations to Laurence Littenberg, Physics 510A, BNL, Upton, NY 11973, or littenbe@bnl.gov.

1997 Sakurai, Panofsky and Wilson Prizes

The 1997 Sakurai, Panofsky and Wilson Prizes were announced by the APS.

The 1997 J. J. Sakurai Prize for Theoretical Particle Physics was presented to Thomas Appelquist of Yale University

For his pioneering work on charmonium and on the de-coupling of heavy particles.

The 1997 W.K.H. Panofsky Prize in Experimental Particle Physics was awarded to Henning Schroeder of DESY and Yuri Zaitsev of ITEP

For their leading role in the first demonstration of mixing in the B_0 - \bar B_0 system. The unexpectedly large value of the mixing parameter provided indirect evidence for a large top quark mass and has greatly enhanced the possibility for studying CP violation in B meson decays. This capability has encouraged a worldwide effort to determine whether the small CP violation in K decay is a reflection of a fundamental parameter characterizing transitions of quarks among the three generations.

The 1997 Robert R. Wilson Prize for Achievement in the Physics of Particle Accelerators was presented to Andrew M. Sessler of Lawrence Berkeley National Laboratory

For a broad range of theoretical and conceptual advances in particle beam dynamics, leading to important accelerator performance improvements; for contributions in the areas of synchrotron rings, including negative mass instability and resistive wall instability, and free electron lasers; for the two-beam accelerator concept; for helping shape the very language of beam physics; and for inspiring and guiding several generations of accelerator scientists and serving as a statesman of science.

Information on nominations for 1997 prizes may be found at http://www.aps.org/praw/nomguide.html.

New APS Fellows

The 1996 APS Fellows in the Division of Particles and Fields have been announced. The new Fellows are

William C. Carithers, Jr.
Michael J. Duff
Kevin Einsweiler
Nicholas J. Hadley
Vasken Hagopian

Hans B. Jensen
Ernest Ma
Usha Mallik
Daniel R. Marlow
Michael J. Murtagh
Martin G. Olsson
Joseph F. Owens III
Stephen J. Parke
Anatoly V. Radyushkin
Jeffrey D. Richman
Wesley H. Smith

Nominations for APS/DPF fellowships for 1997 are due by April 1, 1997; information is available at http://www.aps.org/fellowship/.

DPF Standing Committees

During the course of the year, the DPF Executive Committee relies on four standing committees to carry out various important and time-consuming tasks on behalf of the DPF. They are the Nominating, Panofsky Prize, Sakurai Prize, and Wilson Prize Committees.

The members of these committees for this year are listed below. The DPF Executive Committee would like to express its thanks to them for their special contributions on behalf of our community.

Nominating Committee

Abe Seiden (Chair)
Melissa Franklin
Robert Jaffe
Michael Murtagh
Helen Quinn
Bill Reay

Panofsky Prize Committee

Gary Feldman (Chair)
Gerson Goldhaber
James Pilcher
Henry Frisch
Jonathan Rosner
Frank Sciulli

Sakurai Prize Committee

Lawrence Hall (Chair)
Howard Georgi
Jeffrey Harvey
William Marciano
Mark Wise

Wilson Prize Committee

Christopher Leeman (Chair)
Ilan Ben-Zvi
Stephen Holmes
Raphael Littauer
Claudio Pellegrini

Last modified 31 December 1996