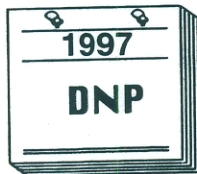




**TO: Members of the Division of Nuclear Physics, APS**  
**FROM: Benjamin F. Gibson, LANL – Secretary-Treasurer, DNP**

**ACCOMPANYING THIS NEWSLETTER:**

- A ballot for the nomination of DNP Officers and Executive Committee
- DNP Fall Meeting — Whistler, BC  
Housing Form  
Registration Form



**Future Deadlines**

- **23 June 1997** — User Group Deadline in order to appear in the October Bulletin
- **1 July 1997** — Contributed Abstracts for the Whistler Fall Meeting
- **1 July 1997** — Nomination Ballot for DNP Elections
- **1 July 1997** — Nominations for 1998 Bonner Prize
- **1 July 1997** — Nominations for 1998 Bethe Prize
- **1 July 1997** — Nominations for Dissertation Award
- **5 September 1997** — Housing Deadline for Whistler Meeting
- **12 September 1997** — Last Day for Whistler "Special" Pre-Registration Rates

**WWW Home Page for DNP**

A worldwide web home page for the Division of Nuclear Physics is currently available at "<http://nuclth.physics.wisc.edu/dnp/>". Each newsletter is posted on the web, in advance of the copy you receive in the mail. Other information of interest to DNP members, such as deadlines for meetings, prizes, nomination forms, and special announcements are listed there as well. We would like to hear your comments and suggestions. Please send them to Baha Balantekin at "[dnp@nuclth.physics.wisc.edu](mailto:dnp@nuclth.physics.wisc.edu)".

**1. DNP COMMITTEES**

**Executive Committee**

- Bunny C. Clark, OSU, **Chair** (1997)
- Stuart J. Freedman, UCB/LBNL, **Chair-Elect** (1997)
- Walter F. Henning, ANL, **Vice Chair** (1997)
- Benjamin F. Gibson, LANL, **Secretary-Treasurer** (1997)
- Virginia R. Brown, NSF (**Past Secretary-Treasurer**)

- John Schiffer, ANL, **Divisional Councilor** (December 1999)
- Peter Paul, SUNY at Stony Brook, **Divisional Councilor** (December 1997)
- Thomas J. Bowles, LANL (1997)
- Jolie A. Cizewski, Rutgers (1998)
- Bradley W. Filippone, Caltech (1998)
- Claus-Konrad Gelbke, MSU (1998)
- Cathleen E. Jones, Caltech (1997)
- Berndt Mueller, Duke (1997)

**Program Committee**

- S. J. Freedman, UCB & LBNL (**Chair**)
- W. Henning, ANL (**Vice-Chair**)
- B. C. Clark, OSU (**Past-Chair, 1996**)
- L. L. Riedinger, Tennessee (**Past-Chair, 1995**)
- B. F. Gibson, LANL (**Secretary-Treasurer**)
- S. Capstick, FSU
- R. Carlini, CEBAF
- D. Fossan, LBNL
- A. Garcia, Notre Dame
- J. D. Garrett, ORNL
- J. W. Harris, Yale
- S. Klein, LBNL
- J. Millener, BNL
- M. Ramsey-Musolf, INT and Connecticut
- S. Seestrom, LANL
- D. M. Skopik, Saskatchewan
- R. P. Springer, Duke
- W.T.H. van Oers, Manitoba
- G. D. Westfall, MSU
- J. F. Wilkerson, Washington
- S. W. Wissink, IUCF

***Appointments of members to DNP committees are for one- or two-year terms. Division Councilors are elected for four-year terms. Executive and Program Committee dates correspond to the end of the term following the Spring Meeting except for Division Councilors, as indicated. Remaining committees will appear in the July newsletter.***

**2. NOMINATIONS OF OFFICERS AND EXECUTIVE COMMITTEE FOR 1998**

The terms of the officers and three members of the present Executive Committee will expire at the close of the regular meeting of the Division to be held in conjunction with the APS general meeting in Columbus, Ohio, April 1998. Stuart J. Freedman will become Chair, Walter Henning will become Chair-Elect, and Jolie A. Cizewski, Bradley W. Filippone, and Claus-Konrad Gelbke will remain members of the Executive Committee. A Vice-Chair, Secretary-

Treasurer, and three members of the Executive Committee are to be elected before April 1998.

The enclosed nominating ballot must be signed and may be returned in the enclosed envelope with your name and address printed or signed legibly in the upper left hand corner of the envelope. It must be received by **Benjamin F. Gibson** on or before **1 July 1997** in order to be counted. The DNP bylaws require that a nominee proposed for a given post by not fewer than one-fiftieth of the members (45 for this election) shall be deemed nominated to that post.

If you are a DNP member, please exercise your right to nominate candidates for the upcoming DNP elections. In 1996 there were only 87 nomination forms received by the Secretary-Treasurer. More members vote in the DNP elections, but for 1997 only about 790 election ballots were mailed in by members. **It is important to vote!**

### 3. THE 1998 HANS A. BETHE PRIZE

The Hans A. Bethe Prize will be given for the first time in 1998. The Prize, consisting of \$7500 and a certificate, will be awarded in recognition of "*outstanding work in theory, experiment or observation in the areas of astrophysics, nuclear physics, nuclear astrophysics, or closely related fields.*"

Nominations are herewith solicited; they are open to all scientists, worldwide. No time limits are set on when the work was done, and it ordinarily will be awarded to a single individual. Nominations are due prior to July 1, 1997, and remain active for 3 years. It is helpful to have several substantive letters of support for a nomination. Emphasis on the impact of the work is helpful. It is appropriate to submit material, e.g., publications, in support of a nomination.

Nominations should be sent prior to July 1 to Prof. Ernest Henley, Physics, Box 351560, University of Washington, Seattle, WA 98195-1560, Email: henley@alpher.npl.washington.edu. Other members of the selection committee are Hans Bethe, John Schiffer, Virginia Trimble, and Stanford Woosley.

### 4. NOMINATION FOR 1998 TOM W. BONNER PRIZE IN NUCLEAR PHYSICS

This annual prize was established in 1964 as a memorial to Tom W. Bonner by his friends, students and associates. Previous winners are: H. H. Barschall, R. J. Van de Graaff, C. C. Lauritsen, R. G. Herb, G. Breit, W. A. Fowler, M. Goldhaber, J. D. Anderson and D. Robson, H. Feshbach, D. H. Wilkinson, C. S. Wu, J. P. Schiffer, S. T. Butler and G. R. Satchler, S. Polikanov and V. M. Strutinsky, Roy Middelton and W. Haeberli, R. M. Diamond and F. S. Stephens, B. L. Cohen, G. E. Brown, C. D. Goodman, H. A. Enge, E. G. Adelberger, L. M. Bollinger, B. Frois and I. Sick, R. H. Davis, E. M. Henley, V. W. Hughes, P. Twin, H. G. Blosser and R. E. Pollock, A. Arima and F. Iachello, E. K. Warburton, F. Boehm, J. D. Walecka, and R. G. H. Robertson.

The purpose of this prize, which currently consists of \$5,000 and a certificate citing the recipient's contributions, is "*To recognize and encourage outstanding experimental research in nuclear physics, including the development of a method, technique, or device that significantly contributes in a general way to nuclear physics research.*"

Nominations are open to physicists whose work in nuclear physics is primarily experimental, but a particularly outstanding piece of theoretical work will take precedence over experimental work. There are no time limitations on when the work was performed. The prize shall ordinarily be awarded to one person but a prize may be shared among recipients when all the recipients have contributed to the same accomplishment(s).

Nominations remain active for three years. It is extremely helpful for the committee to receive additional letters of support that detail the contributions of the nominee and the impact these contributions have had on the field. It is also appropriate to submit material such as significant articles that might help us evaluate the nominee's contribution. While general statements concerning the value of the nominee's work are important, we must have specific information that allows us to determine what the nominee has contributed and how this contribution has impacted the field.

Send name of proposed candidate and supporting material before **1 July 1997** to: Prof. N. Benczer-Koller, Department of Physics, Rutgers University, New Brunswick, NJ 08903, Email: nkoller@ruthep.rutgers.edu. Other members of the selection committee are H. Robertson, J. Harris, Peter Paul, and S. Wallace.

### 5. 1998 DISSERTATION AWARD IN NUCLEAR PHYSICS

The biennial prize, which recognizes a recent Ph.D. in nuclear physics, was established in 1985 by members and friends of the Division of Nuclear Physics of the APS. Previous winners are: B. Sherrill and W. J. Burger, Thomas E. Cowan, Michael J. Musolf, James Edward Koster, Zhiping Zhao, and Greg Schmid.

**Nature:** The award consists of \$1000 and an allowance for travel to the annual Spring Meeting of the Division of Nuclear Physics of the American Physical Society at which the award will be presented.

**Rules and Eligibility:** Nominations are open to any person who will receive a Ph.D. degree in experimental or theoretical nuclear physics from a North American university within the two-year period preceding 1 September 1997.

Send before 1 July 1997 the nomination of the proposed candidate, an up to four page summary of the thesis research, a statement of his/her contribution to the research as well as that of others and a letter of support from the physicists who are familiar with the candidate and the research. To expedite the process, copies of the thesis should be made available for the five committee members. These materials are required for each nominee and should be sent to Prof. B. C. Clark, Department of Physics, Ohio State University, Columbus, OH 43210-1106, Email: bcc@mps.ohio-state.edu. Other members of the selection committee are J. Kolata, J. Rapaport, L. Riedinger, and H. Weller.

### 6. FUTURE DNP FALL MEETINGS

1997	October 5-8	Whistler, BC
1998	October 28-31	Santa Fe, NM
1999	October	Asilomar, CA
2000	October	Williamsburg, VA

The dates include the Wednesday "workshops," which are held in conjunction with the DNP Fall Meetings. Holding "workshops" at the DNP Fall Meetings is a tradition that began with the 1986 Vancouver meeting. All meeting attendees are welcome and encouraged to come. It has been the intention of the DNP Executive Committees that these "workshops" should have broad appeal, with introductory pedagogical talks for the benefit of those who have come primarily for the DNP meeting but want to take the opportunity to learn about a field of specialty of the local community.

## 7. FUTURE APS SPRING MEETING INFORMATION

1998	April 18-21	Columbus, OH
1999	March 20-26	Atlanta, GA

The 1999 Centennial celebration will be held 20-26 March in Atlanta. The first two days will be devoted to formal celebrations. The 22-26 March dates will correspond to an annual spring meeting. The year-long centenary celebration will begin in the fall of 1998 and continue until the summer of 1999. The APS will produce a "wall chart" for the Centennial. Ideas for important events to include from this century are solicited. The APS contact for the Centennial celebration is Brian Schwartz; the chair of the DNP Centennial Committee is J. D. Walecka; the DNP/APS liaison is V. R. Brown.

## 8. DNP BUSINESS MEETING AT THE 1997 APS/AAPT SPRING MEETING, WASHINGTON, DC, 18-21 APRIL 1997

The Business Meeting of the DNP was held at 17:30, Saturday, 19 April in the Renaissance Hotel following the Bonner Prize session, G2. The meeting opened with congratulations to the Bonner Prize recipient Prof. Hamish Robertson and to those members of the DNP elected to APS Fellowship: Da Hsuan Feng, John W. Harris, Barbara V. Jacak, James J. Kolata, Dennis G. Kovar, I. Yang Lee, William G. Lynch, Hans-Otto Meyer, Steven C. Pieper, Edward V. Shuryak, Johana B. Stachel, and Petr Vogel.

The outgoing DNP Chair, Lee R. Riedinger, thanked the other officers and the committee members with whom he had worked during his tenure. He turned the gavel over to Bunny C. Clark, incoming DNP Chair.

The Secretary-Treasurer, Ben Gibson, reported on the financial status of the DNP treasury and the DNP Prize Funds. The Bonner Prize fund stood at \$128K as of 31 December 1996. The new Bethe Prize fund stood at \$166K. The Dissertation Award fund stood at \$38K.

The incoming DNP Program Chair, Stuart J. Freedman, reported on plans for the 1997 fall meeting in Whistler, BC. See Item 10 for details of the meeting.

Other items on the agenda included remarks by the agency representatives and a brief summary of NSAC activities.

## 9. TRI-DIVISIONAL COLLOQUIA FOR THE SPRING MEETING AT WASHINGTON, DC, 18-21 APRIL 1997

*Tri-divisional Colloquia* were again sponsored by The Division of Astrophysics, The Division of Nuclear Physics, and The Division of

Particles and Fields and were organized by Wick Haxton. These special colloquia on topics in nuclear and particle astrophysics were held Friday evening, 18 April, during the APS/AAPT Spring Meeting of the American Physical Society. They were intended to provide an introduction to two important issues in nuclear and particle astrophysics: the first results from SuperKamiokande and the recently reported life on Mars. The lectures were presented in the style and at the level of typical departmental colloquia. They were intended for a general audience, including younger researchers who are not experts in this research area. The colloquia were free to all those registered for the APS/AAPT Spring Meeting. The speakers, Ken Young and Jack Farmer, are well known for their clarity and enthusiasm.

The program was:

K. K. Young      University of Washington  
"First Results from the Superkamiokande Experiment"

J. Farmer        NASA Ames Research Center  
"Exploring for Martian Life"

Prof. Young began with a reminder that neutrinos are elusive and still mysterious particles. Neutrinos may have mass and may oscillate from one flavor to another. He then turned his attention to the very large 50 kiloton water Cherenkov detector that has been in operation since April of 1996. The first 102 days of data have been analyzed and the preliminary results on solar neutrinos have been obtained. Based on the data with visible energies of  $> 7$  MeV, the  $^8\text{B}$  neutrino flux was  $[2.51 (+0.14/-0.13) \pm 0.18] \times 10^6/\text{cm}^2/\text{sec}$ . Prof. Young noted that this is consistent with previous measurements that were interpreted to favor neutrino oscillations. The possible mass induced neutrino oscillation could be confirmed by observing the difference in flux between day and night. With the 102 days of data, the day time and night time fluxes agree within statistical uncertainties. Prof. Young concluded by emphasizing that the experiment is on track to be able to make a definitive determination with two more years of data.

Dr. Farmer began with a review of what we learned from the Viking missions some twenty years ago, and how advances since Viking have refined our understanding of the early history of life on Earth and the biology and paleontology of extreme environments. He noted that these advances resulted in a new vision for the exobiological exploration of Mars during the coming decade that will culminate in a sample return mission in 2005. Farmer also reviewed the current status of the Mars life debate centered around the ALH84001 meteorite, and how it is helping to prepare us for sample return. He emphasized that developing an innovative approach to the problems of recognizing biogenicity in ancient rocks provides a central focus for the emerging field of Mars Exopaleontology, which is helping to define a conceptual framework and strategy that will guide efforts during the coming decade of exploration.

## 10. DNP FALL MEETING AT WHISTLER, B.C., 5-8 OCTOBER 1997

### General Information

The Annual Fall Meeting of the Division of Nuclear Physics of the American Physical Society, cosponsored by the Canadian Association of Physicists, including three associated workshops, will be held October 5-8, 1997 at the Chateau Whistler Resort, in

the town of Whistler, B.C. Whistler is located about 2.5 hours by car north of the Vancouver International Airport. The country around Whistler is a spectacular mix of fjords, mountains, alpine lakes, glaciers, and the Pacific Ocean. Whistler is most famous as a world class ski resort. It is a paradise for hiking, mountain biking, rock climbing, camping, fishing, canoeing, horseback riding, golfing, tennis, photography, and sightseeing (including boat and helicopter tours). Rental equipment is available locally. Whistler town's elevation is 658 m. The weather in October will be variable, high 17C (53F), low 2.2C (35F) — a perfect time to see spectacular scenery and fall colors.

### **Meeting Program**

The meeting will consist of a plenary session, five sessions of invited talks, and approximately 25 sessions of contributed papers. The subcommittee of the 1997 Program Committee will arrange two sessions of invited papers on topics selected at the April Program Committee meeting. Two voted sessions will be arranged by the Program Committee Chair. The Local Organizing Committee is organizing a fifth session of invited talks. There will also be three workshops, a business meeting of the Division, meetings of user groups of various accelerator laboratories, a welcome reception on Sunday, October 5, 1997, a banquet on Tuesday, October 7, 1997, and a tour of TRIUMF on Thursday, October 9, 1997.

### **Workshops**

Three workshops will be held on October 5, 1997, prior to, but in conjunction with, the DNP meeting. One workshop will be on "Discrete Symmetries," organized by Wick C. Haxton and Ernest M. Henley. The second workshop will be on "Electromagnetic Dynamics of Mesons and Nucleons," organized by Jack Bergstrom, Donald F. Geesaman, and Richard G. Milner, while the third workshop will be on "Radioactive Beams and Nuclear Astrophysics," organized by John M. D'Auria and James D. King. The workshops will run in parallel. A US\$ 30.00 or Cdn\$ 40.00 registration fee will cover all three workshops. Registration will take place on October 5, 1997.

### **Registration**

Registration will begin on Sunday, October 5, 1997, at 07:30–10:00, in the Elevator Lobby of the Chateau Whistler Resort. It will continue on Sunday from 17:00–19:00 at the same location. On Monday, October 6, 1997, registration will continue at 08:00–17:00 in the Elevator Lobby of the Chateau Whistler Resort. Thereafter, registration will take place at the Meeting Secretariat in the Laurier Boardroom of the Chateau Whistler Resort from 08:00–17:00.

For meeting information and advance-registration please contact Ms. Waltraud Dilling, DNP97, TRIUMF 4004 Wesbrook Mall, Vancouver B.C. V6T 2A3 Canada, e-mail [dnp97@triumf.ca](mailto:dnp97@triumf.ca), webpage <http://www.triumf.ca/>. An advance-registration form with details is included with this newsletter.

### **User Group Meetings**

It is anticipated that various groups will wish to hold user group meetings during the Fall Meeting at the Chateau Whistler Resort. To schedule these so as to prevent conflicts with other meetings or activities and to have these announced in the October Bulletin, it will be necessary to make arrangements with the Local Organizing Committee by June 10, 1997.

### **Tour of TRIUMF**

A tour of TRIUMF will be held following the DNP Fall Meeting on the morning of Thursday, October 9, 1997. Bus service will be arranged from the Chateau Whistler Resort to TRIUMF. It is expected that the tour ends at approximately 13:00.

### **Accommodations**

Conference accommodation will be at the Chateau Whistler Resort. A reduced room rate [single or double occupancy] of Cdn\$ 135.00 is available. Limited numbers of shared student housing will also be available at a further reduced rate [for graduate students only; a special request needs to be made with the Conference Secretary].

For hotel reservation please contact: Chateau Whistler Resort, Reservations Department, 4599 Chateau Boulevard, Whistler B.C. V0N 1B4 Canada. Phone 604-938-2010, Fax 604-938-2055, e-mail [cwrrs@cwr.mhs.compuserve.com](mailto:cwrrs@cwr.mhs.compuserve.com). A hotel reservation form with details is included with this newsletter.

### **Travel Information**

Air Transport: Air Canada/United Airlines, Canadian Airlines/American Airlines, and many other U.S. and Canadian carriers provide direct flights to Vancouver, B.C., from many cities throughout North America. Vancouver, B.C., is also the destination of many international flights across the Pacific and across the Atlantic.

Ground Transportation: The preferred options for ground travel from Vancouver International Airport to Whistler, B.C. are:

- (1) by rental automobile; the travel time is approximately two and a half hours with truly spectacular scenery along the way [along Howe Sound in particular].
- (2) by limousine; limousine service to be arranged at the airport with each limousine seating six to eight passengers [estimated cost Cdn\$ 200 per limousine]. The Conference Organization will have a representative in the International Terminal [arrival level, glassed-in area] to give assistance with arranging limousines on Saturday, October 4, 1997 and on Sunday, October 5, 1997.
- (3) by bus: Perimeter Transportation runs a bus service twice daily from Vancouver International Airport to Whistler with departures at 11:00 and 18:30 [one way fare is Cdn\$ 42.80 and return fare Cdn\$ 85.60].
- (4) by taxi to the Canadian National Railway Station Bus Depot [estimated cost Cdn\$ 9.00] and by coach to Whistler. Maverick Coach runs a bus service five times daily at 08:00, 11:00, 15:00, 17:00, 19:00 to Whistler [one way fare is Cdn\$ 15.00 and return fare Cdn\$ 29.00]. Estimated travel time: two and a half hours from the Bus Depot.

Entering Canada: Citizens of all countries other than the USA must carry a valid passport. In some cases a visa is also required. U.S. visitors entering Canada may show a passport, or prove their citizenship with such documents as a birth, baptism, or voter's certificate. Naturalized U.S. citizens should carry a naturalization certificate. Permanent U.S. residents who are not citizens are advised to bring their Alien Registration Receipt Card or passport. The above also relates to reentering the U.S.

Currency: Delegates are urged to exchange their funds for Canadian dollars at a bank, at Vancouver International Airport or near the Meeting hotel, or alternatively to use an automatic banking

machine. Shops and restaurants will often accept U.S. currency, but at a less favorable rate. During 1996, the rate has been Cdn\$ 1.00 = US\$ 0.73 approximately.

**Taxes and Tax Rebates:** Most items in British Columbia, except food, are subject to both a 7% Provincial Sales Tax (PST) and a 7% Federal Goods and Services Tax (GST). For accommodations, the PST is replaced by a 10% B.C. Room Tax. Non-residents of Canada, however, may claim a rebate for the GST paid on accommodation and most consumer goods taken out of the country. The GST Rebate Guide for Visitors, which includes the rebate form, will be supplied in the registration package. Please ensure to retain all receipts so that you can claim your rebate at a Duty Free Shop upon leaving Canada.

### Local Organizing Committee

The Local Organizing Committee consists of:

John M. D'Auria [SFU],  
 David F. Measday [UBC],  
 Gerald A. Miller [University of Washington],  
 Jean-Michel Poutissou [TRIUMF],  
 Gerald Roy [University of Alberta],  
 Gregory R. Smith [TRIUMF],  
 Willem T.H. van Oers –chairman– [University of Manitoba],  
 Erich W. Vogt [UBC/TRIUMF].

### Abstract Submission

The deadline for the submission of all abstracts is July 1, 1997, 17:00 EST at the APS Headquarters.

**THE DEADLINE IS FIRM, SO DO NOT WAIT UNTIL THE LAST MINUTE! SEND EARLY TO PREVENT ANY UNWANTED SURPRISES!**

### Electronic Submission

The APS has an electronic abstract submission process available, which has been very successful. More than 90 percent of all abstracts are now being submitted electronically. There are many advantages to submitting electronically.

- E-mail message confirming receipt of your abstract;
- E-mail notification of the scheduling of your paper;
- The complete abstract will appear in the electronic version of the program which will be posted on the APS home page, well in advance of the printed program (abstracts submitted in paper form will have only the title and author listed in the electronic program).

For information on how to submit an abstract electronically, send an e-mail message to "abs-info@aps.org" and use the word "info" in the text of your message. To receive the template, send a message to "abs-request@aps.org" and put the words "request DNP97" in the text of your message. The information and/or template will be returned to you by e-mail. If you have particular questions regarding the information, or need assistance, send a message to "abs-help@aps.org".

Submitting electronically is very easy. The mark-up language that is being used is LaTeX, but you do not need to know LaTeX in order to submit an abstract. Simple ASCII text will suffice, unless you need to put mathematical symbols or Greek characters in the text of your abstract — and most of those instructions are very simple.

### Some Electronic Do's and Don'ts:

- Do not simply "reply" to the address from which you received the abstract template. Send the abstract to "abs-submit@aps.org". Make sure you have the correct meeting ID.
- One abstract per message! The system is automated. Sending two or more abstracts in one message increases the likelihood that all but the first abstract will disappear into the ether.
- Only submit your abstract once. You should receive an e-mail message within 24 hours, verifying that we received your message. If you do not, contact "abs-help@aps.org".
- If you would like to request equipment, please include the request in the \Special Instructions{ } field in the electronic template, or at the bottom of your paper, if submitting via paper.

### Paper Submission

Abstracts received via postal mail will be accepted. However, only the title and authors of the paper will appear in the printed version of the Bulletin and on the World Wide Web version of the Bulletin.

Please follow the instructions for the preparation of paper abstracts as they appear in each issue of APS Meeting News. Please send these abstracts to:

Meeting Abstracts – DNP Meeting  
 APS Meetings Department  
 One Physics Ellipse  
 College Park, MD 20740-3844

Please do NOT also send a paper abstract if you are submitting your abstract electronically. All abstracts must be at the headquarters office by the deadline date. APS assumes no responsibility for mail delays. Receipt of paper abstracts will not be confirmed unless accompanied by a self-addressed stamped envelope

## 11. FALL MEETING MINI-SYMPOSIA

Mini-Symposia will again be a part of the 1997 Fall Meeting in Whistler. Mini-Symposia are focused sessions in which an invited speaker sets the tone for the topic, provides an overview and introduction, highlights new developments, etc. That talk is followed by related contributed papers. Abstracts are submitted in the usual manner; that is, abstracts are submitted to APS HQ electronically as indicated in the instructions in this Newsletter.

To insure that your abstract is considered for the Mini-Symposia in which you wish to participate, it is necessary that your abstract be identified with the appropriate code (11, 12, ...) as indicated below. There is no guarantee that all abstracts submitted for a given Mini-Symposium can be accommodated in that contributed paper session. In the event that more abstracts are received than can be accommodated, the additional abstracts will be assigned to another related contributed paper session.

ID	Session Title	Organizers
11	Order and Chaos in Nuclei	J. D. Garrett
12	Results and Prospects on the Determination of the Production of $^8\text{B}$ in the Sun	J. F. Wilkerson A. Garcia S. J. Freedman
13	Neutral Currents in Atoms and Nuclei	M. J. Ramsey-Musolf R. Carlini
14	Where is the Sea in Nuclei?	M. J. Ramsey-Musolf S. Capstick

Any questions regarding the topics should be directed to the session organizers, who are members of your DNP Program Committee.

## **12. BUDGET UPDATE FROM THE AD HOC COMMITTEE ON NUCLEAR PHYSICS FUNDING, L. Riedinger**

The FY98 budget request to the Congress by the Clinton Administration provides small increases for federal spending on Research and Development (2%) and for civilian basic research (3%). For the National Science Foundation, the overall requested increase is 3% to \$3.367B. This includes a 3.4% increase for Research and Related Activities (to \$2.5B), a 2.8% increase for Mathematical and Physical Sciences (to \$715.7M), and a 6.8% increase for Physics (this is largely due to the infusion of new funds to operate LIGO; other components of this budget would see increases around 2%). In the Department of Energy, the requested budget for nuclear physics is flat in actual dollars at \$315.9M, after the subtraction of approximately \$16M of advanced FY99 funding for RHIC.

In some ways the submission of a flat budget request for DOE nuclear physics is a victory, compared to the out-year projections that the Administration published last year as an attachment to the FY97 request. Those projections indicated a severe decline in Energy Research budgets in DOE in the years leading to a balanced budget in 2002. The uproar and letter writing that occurred apparently had an impact in telling the Administration and the Congress that this arm of federal support of basic research is extremely important to the country. While a flat budget request is appreciated compared to the projections of last year, it is disappointing that this does not keep pace with inflation or match the overall requested increase for basic research.

Amid these problems with the FY98 request and the continuing commitment to balance the budget, there are new signs that federal support of basic research is gaining expanded support on Capitol Hill. The "Gramm Bill" (Senate bill 124) calls for a doubling of spending on non-defense R&D over 10 years (i.e., a 7% annual increase). The Senate Science and Technology Caucus (composed of Senators Frist and Domenici from the Republican side and Lieberman and Rockefeller on the Democratic side; Frist is chair) has had hearings to highlight the importance of basic research in the sciences. The House Science committee is writing authorization bills that will contain 3% or even 7% increases. Ranking minority House Science member George Brown has submitted a bill that includes a 5% increase for basic research. The APS has joined many other professional societies in calling for a 7% increase in basic research spending. This is wide and impressive support for science, but the question is where the appropriations committees will find the extra funds to provide for these increases. That is really difficult.

To call attention to the need for increases in basic research funding, members of the DNP Ad Hoc Committee on Nuclear Physics Funding made visits in April to 12 separate offices on Capitol Hill, asking for a 3 to 7% increase for DOE nuclear physics. There is support in some offices for this goal, but it is not clear whether this good will can translate into increased funds. The NSF situation is more difficult. There has been a 30% decline in inflation-corrected budgets for nuclear physics since 1989, and this has had profound effects in terms of lab closures and other belt tightening in our field. There have been inflation-corrected increases for NSF research funding over this same period, but these increases have not filtered down fully to Physics, and even less to Nuclear Physics. Our Ad Hoc

Committee is working to see what can be done to support the efforts of the program office in the NSF to obtain a larger budget.

## **13. NSAC REPORT, K. Gelbke**

The 1997 roster of NSAC members is: C. Konrad Gelbke (Chair), James R. Beene, Peter Bond, Bradley W. Filippone, Peter E. Haustein, David W. Hertzog, Calvin R. Howell, Nathan Isgur, Barbara V. Jacak, Shoji Nagamiya, Jerry A. Nolen, Angela V. Olinto, Robert J. Perry, Robert P. Redwine, Lee L. Riedinger, R. G. Hamish Robertson, and T. James M. Symons.

NSAC had its first meeting in 1997 on February 26. No formal charge was brought forward by the agencies.

After a short address by Peter Rosen, Dave Hendrie and Jack Lightbody gave overviews over the status and funding of the DOE and NSF Nuclear Physics programs. Nuclear Physics Funding by DOE is \$315.9 M for FY97, i.e., \$9.1 M short of the lower level guidance for the 1996 Long Range Plan (LRP). The request for FY98 is at the flat dollar level (i.e. nearly \$20 M short of the minimum program needs identified by the LRP). Funding by NSF is \$39.81 M for FY97, i.e., \$5.2 M below the lower level guidance of the LRP; outyear numbers for the NSF Nuclear Physics Program were not presented. Adjusted for inflation, Nuclear Physics funding has decreased 31% for NSF and 5.3% for DOE between 1989 and 1997. NSAC was pleased to hear that most scientific priorities of the LRP were moving ahead, but expressed serious concern over the growing discrepancy between actual funding and the minimum needs identified in the LRP and the increasing pressure on the base program.

Berndt Mueller provided a brief summary of the NSF Special Emphasis Panel on Experimental Nuclear Physics (<http://www.nsf.gov/mps/phy/nucsep.htm>). A brief discussion of hadron physics opportunities and emerging pressures in the outyears was followed by short information presentations by John Schiffer on the National Academy of Sciences Panel on Nuclear Physics, Jim Decker on the Megascience Forum, and Dave Hendrie on the Megascience Nuclear Physics Working Group. Dave Hendrie requested that NSAC discuss the performance of DOE with respect to the LRP. Following this discussion, the meeting was adjourned.

## **14. DNP AD HOC COMMITTEE ON EDUCATION, M. McMahan**

The DNP Education Committee is in the process of being reorganized and revitalized. The DNP has contributed major financial support to the development of an educational wall chart for nuclear science illustrating basic concepts of nuclear science as well as contemporary research and applications. Education Committee and other DNP members are heavily involved in this project, which is being developed and published under the auspices of the Contemporary Physics Education Project (CPEP), creators of the Particle Physics and Fusion Wall Charts. A field test version of the chart and accompanying material is being distributed to 100-150 high school and college physics and chemistry teachers for field testing this spring. Results of the field test will be used in the development of the final version of the Wall Chart to be published in 1998.

Information about the Nuclear Science Wall Chart can be found at [http://user88.lbl.gov/nsd\\_docs/ed.html](http://user88.lbl.gov/nsd_docs/ed.html). DNP members who wish to field test the chart in their classrooms this spring may contact me at [mcmahan@lbl.gov](mailto:mcmahan@lbl.gov).

The Education Committee is beginning other efforts, which include working with the DNP World Wide Web Committee to develop an Educational Outreach page on the DNP Web site. If you have educational material on the Web related to nuclear science or its applications, or wish to contribute to educational outreach in any way, please contact me at [mcmahan@lbl.gov](mailto:mcmahan@lbl.gov).

## 15. ANNUAL REVIEWS OF NUCLEAR AND PARTICLE SCIENCE

The Division has continued the agreement with Annual Reviews, Inc., which will enable DNP members to obtain copies of the "Annual Review of Nuclear and Particle Science" at a 30% discount when purchased through the DNP Secretary-Treasurer, Benjamin F. Gibson, Los Alamos National Laboratory, DNP, MS B283, Los Alamos, NM 87545.

**1996-97 Prices:** The dual prices (separated by a slash) listed below correspond to USA/other countries including Canada. Volumes 13-29 and 35-41 are \$55/\$60 retail and \$39/\$42 for DNP members. Volumes 42 and 43 are \$59/\$64 retail and \$42/\$45 for DNP members. Volumes 44 and 45 are \$62/\$67 retail and \$44/\$47 for DNP members. Volume 46 is \$67/\$72 retail and \$47/\$51 for DNP members. Volume 47 is \$70/\$75 retail and \$49/\$53 for DNP members.

Other Annual Reviews are also available. A complete listing of topics and authors for the current volumes and back volumes of Annual Reviews publications may be viewed on the Annual Reviews Web site at <http://www.annurev.org>. The Web site also features a fully searchable abstracts database for all Annual Reviews publications which allows visitors to search by author name or key words.

Payment (payable to the Division of Nuclear Physics-APS) must accompany your order and must be in U.S. funds. California orders must add applicable sales tax. *Since 1 January 1991, all orders shipped to Canada require the addition of a 7% General Sales Tax.*

## 16. FALL 1997 TARGET DATES FOR PROPOSAL SUBMISSIONS TO THE DIVISION OF PHYSICS OF THE NSF, V. R. Brown

On the basis of the success of last year's target-date experiment, which was designed to improve the Division's management of proposals, and to allow us, where appropriate, to employ disciplinary panels in the merit review process, the Division of Physics will repeat the use of target dates for proposal submissions for disciplinary research activities competing for FY 1998 funds (FY 1998 begins on October 1, 1997).

The two target dates of interest to DNP members are:

1. Wednesday, October 8, for proposals concerning:  
Theoretical Nuclear Physics  
Special Programs and Conferences
2. Wednesday, November 19, for proposals concerning:  
Experimental Nuclear Physics

Please do not send proposals more than one month in advance of the deadline to avoid processing timing difficulties.

Other target dates in the Physics Division can be found on the NSF/Physics Division web pages "<http://www.nsf.gov/mps/phy>".

The above dates do not apply to proposals sent to the Physics Division in response to Foundation-wide solicitations such as the Faculty Early Career Development (CAREER) or Research Experiences for Undergraduates sites (REU). These programs have specified target or deadline dates contained in their program announcements. More information can be obtained on the NSF web pages "<http://www.nsf.gov/>".

## 17. FUTURE CONFERENCES

Organizers of future conferences should contact the DNP Secretary-Treasurer if they wish their conferences listed in DNP newsletters.

**"Sixth International Conference on Nucleus-Nucleus Collisions,"** 2-6 June 1997, Park Vista Hotel, Gatlinburg, TN. Co-hosted by the Physics Division, ORNL and the National Superconducting Cyclotron Laboratory, MSU. Contact: Ms. Ann M. McCoy, Conference Secretary, Mail Stop 6368, Oak Ridge National Laboratory, Oak Ridge, TN 37831-6368, email: [nn97@mail.phy.ornl.gov](mailto:nn97@mail.phy.ornl.gov).

**"Nuclear Chemistry Gordon Conference,"** 15-20 June 1997, Colby Sawyer College, New London, NH. Chair: C. J. (Kim) Lister, Argonne National Laboratory, email: [lister@anlphy.phy.anl.gov](mailto:lister@anlphy.phy.anl.gov), Telephone: 630-252-4040 (4020), Fax: 630-252-2864, WWW: <http://www.phy.anl.gov/gordon/>.

**"2nd International Symposium on Symmetries in Subatomic Physics,"** 25-28 June 1997, University of Washington, Seattle, WA. Contact Ernest Henley, University of Washington, Physics, Box 351560, Seattle, WA 98195, email: [henley@phys.washington.edu](mailto:henley@phys.washington.edu), or see <http://www.phys.washington.edu/henley/symmetries>.

**"The Ninth International Conference on Recent Progress in Many-Body Theories,"** 21-25 July 1997, School of Physics, The University of New South Wales, Sydney, Australia. Preferred form for pre-registration and registration is via the conference homepage: <http://www.phys.unsw.edu.au/conf/mbix/mbix.html>, email: [mbix@newt.phys.unsw.edu.au](mailto:mbix@newt.phys.unsw.edu.au), Fax: 61 2 9385 6060. Convenor: David Neilson, Secretary: Jill Walker, MBIX Conference, School of Physics, The University of New South Wales, Sydney 2052, Australia.

**"XVth International Conference on Few-Body Problems in Physics,"** 22-26 July 1997, Groningen, The Netherlands. Contact: Conference Secretariat, Kernfysisch Versneller Instituut, Zernikeloan 25, NL-9747 AA Groningen, The Netherlands, email: [FBXV@KVI.NL](mailto:FBXV@KVI.NL), WWW: <http://kvi.inl/disk/1/fbxv/conf.html>.

**"1997 Gordon Research Conference on QCD in Nuclear Physics,"** 27 July-1 August 1997, Salve Regina University, on Aquidneck Island in Newport, RI. Chair: Doug Beck, Department of Physics, University of Illinois at Urbana-Champaign, 1110 West Green Street, Urbana, IL 61801-3303, Telephone: 217-244-7994, Fax: 517-333-1215, email: [dhbeck@uiuc.edu](mailto:dhbeck@uiuc.edu). Application Form: Gordon Research Center, University of Rhode Island, P.O. Box 984, West Kingston, RI 02892-0948, Telephone: 401-783-4011, Fax: 401-783-7644, email: [grc@grcmail.grc.uri.edu](mailto:grc@grcmail.grc.uri.edu).

1321, email: tsang@nscl.msu.edu, Telephone: 517-333-6386, Fax: 517-353-5967, WWW: <http://www.nscl.msu.edu/nscl/conferences.html>.

**"MENU97: Seventh International Symposium on Meson-Nucleon Physics and the Structure of the Nucleon,"** 28 July–1 August 1997, Vancouver, British Columbia, Canada. Seventh symposium in a series covering pion-nucleon physics and related topics such as KN scattering, eta physics, baryon spectroscopy, photo- and electroexcitation of the nucleon, dibaryons, and the proton spin crisis. Contact: Maria Freeman, Telephone: 604-222-7355, Fax: 604-222-1074, e-mail: menu97@triumf.ca, Post: TRIUMF-MENU97, 4004 Wesbrook Mall, Vancouver, B.C., V6T 2A3 Canada, WWW: <http://www.triumf.ca/menu97/menu97.html>.

**"The International Conference on Hypernuclear and Strange Particle Physics,"** 13–18 October 1997, Brookhaven National Laboratory, Upton, NY. Contact: R. E. Chrien, Bldg. 510A, BNL, Upton, NY 11973, USA, Telephone: 516-344-3903; D. J. Milliner, Bldg. 510A, BNL, Upton, NY 11973, Telephone: 516-344-3853. Fax: 516-344-5568, email: chrien@bnl.gov or millener@bnl.gov.

**"SANTORINI97, Electromagnetic Structure of Hadrons and Nuclei,"** 21–26 October 1997, Santorini, Greece. Contact: J.-M. Laget, Chairman, email: laget@phnx7.saclay.cea.fr.

**"International Conference on Fission and Properties of Neutron-Rich Nuclei,"** 10–14 November 1997, Sanibel Island, FL. Chair: Joseph H. Hamilton, Vanderbilt. Contact: Peggy L. McGowan, Vanderbilt University, Department of Physics and Astronomy, P.O. Box 1807-B, Nashville, TN 37235, Fax: 615-343-7263, email: mcgowapl@ctrvax.vanderbilt.edu, WWW: <http://anita.phy.vanderbilt.edu>.

**"XVI RCNP Osaka International Symposium on Innovative Computational Methods in Nuclear Many-Body Problems,"** 10–15 November 1997, Osaka, Japan.

**"XXI Nuclear Physics Symposium at Oaxtepec,"** 5–8 January 1998, Oaxtepec, Mexico. Contact: Dr. Jaime Besprosvani, Instituto de Fisica de la UNAM, Apartado Postal 20-364, 01000 Mexico, D.F., Mexico, Telephone: +52-5-6225014, Fax: +52-5-6161535/6225015, email: bespro@teorica0.ifisicacu.unam.mx, WWW: <http://www.nuclecu.unam.mx/oaxtepec/oaxtepec.html>.

**"Fifth International Symposium on Weak and Electromagnetic Interactions in Nuclei, WEIN'98,"** 14–21 June 1998, Santa Fe, New Mexico. Contact: Conference Secretary WEIN'98, MS H844, Los Alamos National Laboratory, Los Alamos, NM 87545, Telephone: 505-665-1819, Fax: 505-665-6943, email: WEIN98@lanl.gov.

**"International Conference on Physics since Parity Symmetry Breaking,"** in memory of Madama C. S. Wu, 16–18 August 1997, Nanjing, China. Sponsored by the Chinese Physical Society, Nanjing University, and Southeast University. Contact: Prof. Fan Wang, Conference Executive Secretary, Nanjing University, email: postphys@nju.edu.cn, nuclphys@nju.edu.cn, Fax: 86-25-3326028.

**"Seventh International Workshop on Polarized Gas Targets and Polarized Beams,"** 18–22 August 1997, University of Illinois at Urbana-Champaign. email: ptb@uinpluxa.npl.uiuc.edu, Fax: 217-333-1215, WWW: <http://www.npl.uiuc.edu/ptb>.

**"International Workshop on Soft Dilepton Production,"** 20–22 August 1997, Lawrence Berkeley National Laboratory. Contact: Volker Koch, MS 70A-3307, Lawrence Berkeley National Laboratory, Berkeley, CA 94720, USA. Telephone: 510-486-5323; Fax: 510-486-4794, email: vkoch@lbl.gov, WWW: <http://macdls.lbl.gov/dilepton.html>.

**"The 7th International Conference on Hadron Spectroscopy (Hadron97),"** 25–30 August 1997, Brookhaven National Laboratory, Upton, NY. Conference Chairman: S. U. Chung (suchung@bnl.gov); Conference Secretary: Sharon Smith (hadron97@bnl.gov); WWW: <http://hadron97.bnl.gov/hadron97/>.

**"Probing Nuclear Matter at Extreme Conditions, 214th National ACS Meeting,"** 8–11 September 1997, Las Vegas, NV. Contact: Betty Tsang, National Superconducting Cyclotron Laboratory, Michigan State University, East Lansing, MI 48824-

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