

DNP



**NEWSLETTER NO. 82**  
**May 1990**

**TO: MEMBERS OF THE DIVISION OF NUCLEAR PHYSICS, APS**  
**FROM: VIRGINIA R. BROWN, LLNL, SECRETARY-TREASURER, DNP**

**ACCOMPANYING THIS NEWSLETTER :**

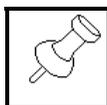
**A Nominating Ballot for the Election of DNP  
Officers and Executive Committee.**

**Bonner Prize Funding Report and List of Donors, R.  
A. Eisenstein.**

**24-27 October, Urbana-Champaign Meeting:**

- *A pre-registration form which includes workshops and banquet.*
- *A housing form.*
- *United Airlines discount information.*
- *Map.*

**FUTURE DEADLINES**



- **20 June 1990** - Abstracts for Urbana-Champaign meeting. (see Item 3.)
- **1 July 1990** - User Group Fall Meeting Room Requests for Bulletin. (see Item 7.)
- **21 July 1990** - **Nomination Ballots for DNP Elections.** (see Item 2.)
- **1 September 1990** - Nominations for 1991 Bonner Prize. (see Item 9.)

**1. COMMITTEES OF THE DNP FOR 1990**

**Executive Committee**

James B. Ball, ORNL, Chair (1991)  
Gerard M. Crawley, Michigan State University, Vice-Chair (1991)  
Virginia R. Brown, LLNL, Secretary-Treasurer (1991)  
Gerald T. Garvey, LANL, Division Councillor, (1993)  
John Cameron, IUCF (1992)  
Bunny C. Clark, Ohio State University (1991)  
Robert A. Eisenstein, University of Illinois, Past Chair (1991)  
Wick C. Haxton, University of Washington (1991)

Noemie Benczer-Koller, Rutgers University (1992)  
Jerry A. Nolen, Jr., Michigan State University (1991)  
Peter D. Parker, Yale University (1992)

**Program Committee**

Gerard M. Crawley, MSU, Chair  
Ray G. Arnold, SLAC  
James B. Ball, ORNL  
Peter D. Bond, BNL  
Virginia R. Brown, LLNL  
Douglas Cline, Univ. of Rochester  
T. William Donnelly, M.I.T.  
Robert A. Eisenstein, Univ. of Ill.  
Benjamin F. Gibson, LANL  
Charles Glashauser, Rutgers Univ.  
Cynthia Gossett, Univ. of Wash.  
Roy J. Holt, Argonne  
Robert L. McGrath, SUNY  
Shoji Nagamiya, Columbia Univ.  
Costas Papanicolas, Univ. of Ill.  
Russell L. Robinson, ORNL  
Brian D. Serot, Indiana Univ.  
Philip J. Siemens, Oregon State Univ.  
Paul Stoler, Rensselaer  
James P. Vary, Iowa State Univ.  
Gordon J. Wozniak, LBL

**Nominating Committee**

R. E. Tribble, Texas, A&M, Chair  
P. D. Barnes, Carnegie Mellon Univ.  
G. T. Garvey, LANL  
J. A. Harvey, ORNL

**Nuclear Science Resources Committee**

L. L. Riedinger, Jr., Univ. of Tennessee, Chair  
E. G. Bilpuch, Duke University  
F. P. Calaprice, Princeton University  
J. G. Cramer, Jr., Univ. of Washington  
H. T. Fortune, Univ. of Pennsylvania  
W. C. Haxton, Univ. of Washington

H. D. Holmgren, SURA  
B. R. Holstein, Univ. of Massachusetts  
K. S. Krane, Oregon State Univ.  
E. B. Norman, Lawrence Berkeley Lab.  
L. Rosen, Los Alamos National Lab.  
V. E. Viola, Jr., Indiana Univ.  
E. F. Zganjar, Louisiana State Univ.

#### 1990 Fellowship Committee

S. E. Koonin, Caltech, Chair,  
H. E. Jackson, Argonne  
N. Benczer-Koller, Rutgers

#### 1991 Fellowship Committee

R. A. Eisenstein, Univ. of Ill, Chair  
H. E. Jackson, Argonne  
F. E. Berrtrand, Jr., ORNL

#### 1991 Bonner Prize Committee

T.J.M. Symons, LBL, Chair  
H. C. Britt, LLNL  
G. T. Garvey, LANL  
E. M. Henley, Univ. Wash.  
D. W. Miller, IUCF

#### 1992 Dissertation Award Committee

G. M. Crawley, MSU, Chair  
J. B. Ball, ORNL  
B. R. Holstein, Univ. of Mass.  
A. M. Nathan, Univ. of Ill.  
E. V. Hungerford, Univ. of Houston

#### Physics News Committee

G. M. Crawley, MSU, Chair  
C. B. Dover, BNL  
J. B. McClellan, LANL  
P. J. Siemens, Oregon State Univ.

*Appointments of members to DNP committees are for one-year terms. The Division Councillor is elected for a four-year term.*

## 2. ELECTION OF OFFICERS AND EXECUTIVE COMMITTEE FOR 1991

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 Washington, D.C., 22-25 April 1991. Gerard M. Crawley will become Chairman and John Cameron, Noemie Benczer-Koller, and Peter D. Parker will remain members of the Executive Committee. A Vice-Chairman, Secretary-Treasurer, and three members of the

Executive Committee are to be elected before April 1991. 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 *Virginia R. Brown* on or before 21 July 1990, 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 (50 for 1990) 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 1989 there were only 27 nominations forms received by the Secretary-Treasurer. More members vote in the DNP elections, but there are typically only about 900 election ballots mailed in by members. It is important to vote.

## 3. APS ELECTIONS

In recent years there are important changes being considered in the structure of the APS that could impact the DNP in significant ways. This year there are two candidates for APS office who are members of the DNP. *Ernest M. Henley* is running for Vice-President of the APS Executive Committee, and *Robert A. Eisenstein* is running for APS Councillor-at-Large. Please take the time as a DNP/APS member to vote in the upcoming APS elections. Your vote counts, and it is important.

## 4. DNP MEMBERSHIP

If you had to borrow this newsletter from a colleague, it may be that you are one of the 846 former members, who did not pay the \$5 dues to maintain your DNP membership on the last APS dues bill. If this is the case, you will no longer enjoy DNP membership privileges, which include receiving the four newsletters per year. Besides the news about DNP/APS meetings, future conferences, fellowships, prizes and awards, budgets, isotope supplies, etc., the newsletter includes ballots for nominating invited talks, nominating and electing officers, and providing suggestions for other DNP and APS committee members. Only members can vote for or be candidates for officers of the DNP.

The size of the DNP membership is a significant factor in how well the DNP can represent the interests of the nuclear physics community. A recent example of this representation was the role of the DNP in organizing "town meetings" for input from the community into the new "Long Range Plan" for nuclear physics, provided by NSAC and requested by the DOE and NSF. The interests of the nuclear physics community are also represented by the DNP in the APS. If the newly proposed APS constitution and bylaws are passed, the number of APS Councillors per Division will depend on the size of the subunit membership.

The DNP membership is 3/4 of its previous value, i.e. 2486 as compared to 3332 of a year ago. You may want to encourage your graduate students and colleagues to join, or you may want to reinstate your own DNP membership, to do so get in touch with the membership department at the New York office of the APS.

#### **5. DNP BUSINESS MEETING AT THE 1990 SPRING APS MEETING, WASHINGTON, D.C.**

The Business Meeting of the DNP was held at 11:30 A.M., Wednesday, 18 April in the South Salon of the Ramada Renaissance Techworld Hotel following session G3. The agenda included congratulations to the Dissertation Award recipient, Michael Jeffery Musolf, to the Bonner Prize recipient, Vernon W. Hughes, and to those elected to APS Fellowship in the DNP, John C. Browne, Thomas B. Clegg, William A. Friedman, Ronald C. Johnson, Richard Madey, Ernest J. Moniz, Shoji Nagamiya, Stuart Pittel, Robert L. Ray, James P. Vary, Stephen J. Wallace, Ronald R. Winters, and Malgorzata Zielinska-Pfabe.

Other items on the agenda included a Bonner Prize Funding report and a DNP membership drop report by the outgoing DNP Chair, Robert A. Eisenstein, a report on the DOE and NSF budget processes and an NSAC report from the incoming DNP Chair, Jim Ball, and announcements about the Urbana-Champaign Fall Meeting plans from the new DNP Program Chair, Gary Crawley. On behalf of the DNP, Jim Ball thanked Bob Eisenstein for all the valuable work he had done during his tenure as DNP Chair, especially in organizing the "town meetings" for the community input to the long range planning process and his time consuming and diligent efforts in successfully obtaining donations from universities, national laboratories, corporations, and individual DNP members for the preservation of the Bonner Prize fund. Lee Riedinger gave a report on the stable isotopes supply problems, and Sam Austin, Editor of Physical Review C, brought us up to date with the latest changes in that journal. Written versions of these reports can be found elsewhere in this newsletter.

#### **6. DNP FALL MEETING AT THE UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN, IL, 24-27 OCTOBER 1990**

The Annual Fall Meeting of the Division of Nuclear Physics will be held 24-27 October at the University of Illinois at Urbana-Champaign. These dates include the Wednesday workshops. The hosts for these events are the Nuclear Physics Laboratory and the Department of Physics. The meetings will be held at Loomis Laboratory of Physics.

The University of Illinois is the academic home for about 35,000 students and about 2,000 faculty. The university houses one of the nation's premiere science and engineering campuses and provides education to about 5,000 undergraduate science and engineering students. The Physics Department consists of about 70 faculty and 300 graduate students, and its research comprises condensed matter physics, nuclear and particle physics, astrophysics, and biophysics.

The University is situated in east-central Illinois amidst some of the world's richest farmland. The towns of Urbana and Champaign have a population of about 100,000 people (exclusive of students) and are expanding and vibrant communities.

#### *Meeting Program*

Six invited sessions are planned for this meeting. The first one is the opening plenary session. Two of the invited sessions will be on topics selected by the Program Committee at the Washington meeting. One session on "Electronuclear Physics", based on suggestions from several committee members, will be arranged by Ray Arnold. Another session on "RHIC" will be arranged by S. Nagamiya. A third session on "Astrophysics" is being arranged by the Local Committee (see enclosed announcement for the members of that committee). Two other sessions of invited papers will be selected by the Program Committee from nominations of individual speakers by the DNP membership. The deadline date for the nomination forms, which were included with the last newsletter, to reach the Program Committee Chairperson, Gerard Crawley, was 11 May 1990.

#### *Workshops*

Prior to the Divisional meeting, two workshops will be held on 24 October. A workshop on "Opportunities with Low-Energy Antiprotons" is being organized by D. W. Hertzog, R. A. Eisenstein, and A. M. Nathan. A second workshop, "Effects of Correlations in Nuclei" is being organized by V. R. Pandharipande, G. A. Baym, and C. N. Papanicolas.

#### *New Look for the Plenary Session*

Now that the long-range planning exercise is behind us, the question has come up about how best to use those sessions at the Fall meetings that have in the last few years been devoted to community matters such as the Long Range Plan.

There have been two major ideas put forward. One is to continue in some way bringing to the attention of the community issues that are of community-wide interest, and to try in some way to preserve the "Town Meeting"

atmosphere that has been successful recently in establishing good lines of communication in our Division. The only difficulty seems to be that with the Long Range Plan now complete, it would not be useful to go over those issues again, and it is not clear how to use effectively the large block of time that a Plenary Session implies.

A second suggestion has been to use that time to present a small (3?) series of frankly pedagogical talks on the new frontiers of our field so that graduate students and other neophytes could have a means of access to that physics. The problem that some see in this approach is that getting speakers to operate in this fashion has been difficult in the past. The Workshops, which were created partly to address this problem, have not been able to preserve very well the pedagogical part. They have largely become mini-conferences for "experts".

For the Fall meeting in Champaign, the local organizing committee is putting together a program which in some ways a combination of these two notions. They are assembling a session that will focus on some issues under the category "Nuclear Science in Society". The idea is to have a few (3) talks by experts that are "introductory" in nature about some of the major issues of our time, including such topics as:

- *Nuclear Power and the Looming Ecological Crisis;*
- *The Impact of Nuclear Physics in Medicine and Medical Science; and*
- *Nuclear Weapons, Arms Control and Proliferation.*

In each case there are a number of notable speakers who could give excellent talks. Plans are in the making now, and a list of talks and speakers will soon be available. It is hoped that these talks will open up new directions for the DNP to be active in scientific, cultural, and political affairs. It is also planned that there will be a reasonable time for discussion after each of the talks.

A DNP Business Meeting is being scheduled for Friday afternoon that will allow for some discussion of issues such as NSF funding and other items of interest to the community.

We are hopeful that this combination of programs will be both useful and attractive to the DNP community.

### **Reception and Banquet**

A welcoming reception is planned for Wednesday evening 24 October 1990 at Levis Faculty Center and a banquet is planned for Friday 26 October 1990 at the Illini Union. No formal companion's program is offered during the meeting, but information about cultural and sporting activities and about sights of interest in the surrounding area will be available.

### **Registration**

The pre-registration fees are \$80 for APS members, \$120 for non-members, \$10 for retired and student members, and \$20 for workshop attendance (fee waived for students). A late fee of \$10 will be added after 7 September 1990. Pre-registration forms are enclosed.

### **Travel and Lodging**

Urbana is located approximately 140 miles south of Chicago and 120 miles west of Indianapolis. It is served by the University of Illinois Willard Airport. There are frequent connecting flights between Champaign-Urbana and St. Louis, Chicago (both O'Hare and Midway), and Dayton, OH airports. We have made arrangements with United Airlines for special discount fares for this meeting. In addition to offering 40% off regular unrestricted coach fares, United will also discount restrictive fares by 5%. To reserve these fares, call United at 1-800-521-4041 and use the profile number 444EZ reserved for attendees of this meeting. The University of Illinois is only 10-15 minutes from Willard Airport and limousine service is both efficient and available at all times. Rental cars are also available. Urbana is approximately 2 1/2 hours by car from Chicago, 2 hours from Indianapolis, and 3 1/2 hours from St. Louis.

A block of rooms has been reserved at three local hotels for conference attendees and their guests at a special rate (plus applicable taxes). To obtain these special prices, telephone the hotel of your choice or mail the enclosed reservation form to the respective hotel by the 19 September 1990 deadline.

### **Deadlines and Rules for submitting Abstracts**

In order to provide sufficient lead time for printing abstracts in the APS Bulletin, the deadline for contributed abstracts is 20 June 1990. Abstracts should conform to APS Bulletin format (see e.g. APS Bulletin 35 No. 1 (1990), pp. 79-81), and be sent in TRIPPLICATE to the Secretary-Treasurer of the Division of Nuclear Physics, Dr. V. R. Brown, Lawrence Livermore National Laboratory, Box 808, L-288, Livermore, CA 94550. For abstracts sent by an express mail service such as Federal or Emery, Box 808 should be replaced by 7000 East Avenue. Please DO NOT send abstracts to W. W. Havens, Jr. *Abstracts received by Dr. Brown after the deadline cannot be included in the program.*

Unfortunately, we are unable to accept abstracts sent via electronic mail such as bitnet; abstracts sent C.O.D. cannot be accepted. If more than one contributed paper is submitted with the same first author, please indicate which abstract should be assigned to the regular program; all except one will be assigned to the supplementary program. All instructions and requests regarding an abstract should appear at the bottom of the abstract itself.

There have been complaints that an increasing number of contributed abstracts are not being presented and that no notification is being given. If you or a colleague are unable to present your paper, please inform the Secretary-Treasurer in advance.

### Local Committee

Further details and the final program for the meeting and workshops will be given in the September Bulletin. Members of the Local Organizing Committee are: C. N. Papanicolas (Chairman), G. A. Baym, R. A. Eisenstein, D. W. Hertzog, A. M. Nathan, and V. R. Pandharipande. For further information, please contact the conference coordinator: Ms. Penny Sigler, University of Illinois, Nuclear Physics Laboratory, 23 Stadium Drive, Champaign, IL 61820. Telephone: 217-333-3190; FAX: 217-333-1215; BITNET: SIGLER@UIUCNPL.

### 7. USER GROUP MEETINGS AT THE URBANA-CHAMPAIGN MEETING

It is anticipated that many groups will wish to hold user group meetings during the fall meeting at Urbana-Champaign. In order to schedule them so as to prevent conflicts with other activities and to have them announced in the September Bulletin, it will be necessary to notify Costas Papanicolas of the Local Committee before 1 July 1990.

### 8. FUTURE DNP FALL MEETINGS

The fall meetings for the next four years are as follows:

1990	October 24-27	Urbana-Champaign, IL
1991	October 23-26	E. Lansing, MI
1992	October 14-17	Santa Fe, NM
1993	October	Asilomar, CA

The dates include the Wednesday "workshops", which are held in conjunction with the DNP fall meetings. Holding "workshops" at the DNP fall meetings has become a tradition which 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.

### 9. NOMINATIONS FOR 1991 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 R. 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 Middleton 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, and R. H. Davis, E. M. Henley and V. W. Hughes.

Send the name of a proposed candidate with supporting information and a proposed citation before 1 September 1991 to: T.J.M. Symons, Chair, Nuclear Science Division, Lawrence Berkeley Laboratory, Bldg. 70A, Rm. 3307, Berkeley, CA 94720.

### 10. BONNER PRIZE FUNDING

The Tom W. Bonner Prize is the only nuclear physics prize in the APS list of prizes. (There is, in addition, the Dissertation Award in Nuclear Physics for recent Ph.D.'s.) The Bonner Prize was established in 1964 as a memorial to Tom W. Bonner by his friends, students, and associates. The prize, which currently consists of \$5000 and a certificate citing the contributions made by the recipient, is awarded annually. On 30 June 1989 the fund balance stood at \$8,142, enough for one more prize in 1990.

The main work in replenishing the prize has occurred in 1989-1990, under the direction of R. A. Eisenstein, DNP Chair. The goal has been to make the prize self sustaining at the \$5000 level. Eisenstein reported at the Washington DNP business meeting that the prize fund should reach approximately \$83,000 as soon as the remaining pledged donations are deposited in the prize account. The contributors include private corporations, universities and laboratories, and individuals. The DNP is very appreciative for the contributions and pledges from this broad community, which have made the continuation of the Bonner Prize a reality. A list of contributors and a special thanks prepared by the Chairman of the Bonner Prize Fund Raising Committee, R. A. Eisenstein, is enclosed with this newsletter.

### 11. PHYSICS NEWS IN 1990

Each year the AIP prepares a report entitled "Physics News". A committee chaired by the Vice-Chair of the DNP organizes articles with an attempt to insure a complete and representative description of the new developments in nuclear physics. This year's committee is listed in this newsletter.

In order to reach a wide audience, the material is prepared in the form of a simple article, resembling an essay or a review, and covering the recent developments in our field. In selecting topics for this year's article, the Committee will take into account the scientific importance

for nuclear physics as well as the impact on other fields and society; topics should represent the breadth of the field. The results of recent experiments or the status of an unfolding research story of continuing interest are appropriate.

Suggestions and brief summaries from DNP members for this year's report should be sent as soon as possible to G. M. Crawley, Chair, Physics Astronomy Dept., Michigan State University, East Lansing, MI 48824

## 12. NUCLEAR SCIENCE ADVISORY COMMITTEE (NSAC) NEWS, Jim Ball

The first meeting of the 1990 Nuclear Science Advisory Committee was held in Washington, D.C., on March 30. In opening the meeting, Chairman Peter Paul reported that editing of the new Long-Range Plan for Nuclear Physics has been completed and that printing is being handled by Brookhaven National Laboratory. Copies are expected to be available by early summer.

A report from the NSF was presented by Jack Lightbody. He noted that Karl Erb has taken a temporary assignment with the Office of Science and Technology Policy and, in his absence, John Fox (Florida State) will be filling in. A presentation of the FY 1991 budget request for the NSF revealed the disturbing feature (for nuclear physics) that while the total budget request for the agency is up 14% over FY 1990, with the request for Mathematical and Physical Sciences being up 11.6%, the increase listed for Physics is only 5.2% and, within this, Nuclear Physics is proposed to increase only 3.6%. This budget will obviously be a concern to the ongoing operation of NSF supported nuclear physics facilities as well as for what it implies about constraints on grants to new investigators. Paul expressed his concern to the agency representatives that the position of nuclear physics is eroding with respect to physics overall.

A report from the DOE was presented by Dave Hendrie. The overall Nuclear Physics budget request for FY 1991 shows an increase of 14% over FY 1990. Within this, the budget breakdown shows a 9% increase for operating expenses, a 24% increase in construction, and a 35% increase in equipment funds. The key elements listed by Hendrie for the FY 1991 program were:

- Start construction of RHIC Project at \$15 million
- Provide full projected funding for CEBAF construction
- Provide major increment of operating funding for CEBAF to prepare for full laboratory operation
- Continue installation of South Hall Ring Experiment at MIT/Bates
- Begin fabrication of Gammasphere detector for nuclear structure research

- Continue joint US/Canadian/UK SNO Project with first year of major procurements for detector
- Continue modernization of nuclear physics instrumentation
- Continue operations of LAMPF at somewhat reduced levels
- Continue phase out activity at a selected heavy ion facility

Following the report from DOE, the Director of LAMPF, Gerry Garvey, was recognized to make a prepared statement before the committee on the impact of the proposed budget reductions on LAMPF operations. Garvey noted that the 41M\$ amount proposed for FY 1991 is 3.5M\$ less than required to retain the FY 1990 level of operation. Impacts on operating hours and support services were presented and discussed, but no action was taken by the committee.

Dave Hendrie presented a request to the committee, from DOE, for their advice on the matter of the phase out of one of the three National Laboratory low energy heavy ion facilities. (These are the Argonne Tandem/Linac Accelerator System (ATLAS), the 88-inch Cyclotron at Lawrence Berkeley Laboratory, and the Holifield Heavy Ion Research Facility (HHIRF) at Oak Ridge National Laboratory.

"Specifically, NSAC is requested to:

- Evaluate the overall scientific excellence and productivity of the nuclear physics program at each of the facilities.
- Evaluate the importance of each facility for other scientific programs, its role in graduate education, and in technical research and development areas.
- On the basis of these considerations evaluate the impact of closure of each of the facilities and recommend the optimum action with respect to facility closure.

In performing this evaluation, NSAC should consider the scientific quality, breadth, cost effectiveness, and uniqueness of each facility's program."

In forwarding this charge to the committee, Hendrie requested that NSAC provide a response to the agency by mid-July of this year. To address this request, the committee agreed to form a subpanel to aid the committee in this evaluation. It was also agreed that this panel would number six to seven with at least three of the members coming from NSAC.

Additional agenda items discussed at this meeting were a report on the stable isotopes supply from Lee Riedinger (see the separate article in this Newsletter) and a report on results from the most recent CEBAF PAC meeting presented by John Domingo.

The 1990 members of NSAC are: P. Paul (SUNY Stony Brook), Chairman, H. C. Britt (LLNL), J. M. Cameron (Indiana), J. J. Domingo (CEBAF), C. B. Dover (BNL), D. F. Geesaman (ANL), C. K. Gelbke (MSU), C. M. Glashauser (Rutgers), S. Koonin (Cal. Tech.), J. B. McClelland (LAMPF), A. C. Mignerey (Maryland), E. J. Moniz (MIT), A. H. Mueller (Columbia), P. D. Parker (Yale), L. L. Riedinger (Tennessee), and L. S. Schroeder (LBL). Additional members of the committee are J. B. Ball (ORNL) representing the APS/DNP, and a representative still to be appointed from the ACS/DNCT.

### 13. NEWS OF THE NATIONAL INSTITUTE FOR NUCLEAR THEORY, E. M. Henley

The first program on "Quarks in Nuclei" began slowly on March 15, but has been gathering speed ever since. Thanks to Tony Thomas and Jerry Miller, the co-organizers, discussions have been lively and we have had between 5-8 visiting fellows from all over the world at any one time.

The summer program on nuclear astrophysics is being organized by Gerry Brown, Stan Woosley, and Wick Haxton and will run from June 15 to September 15, 1990. In June and early July the workshop will focus on the nuclear physics of the big bang, including the effects of density fluctuations on nucleosynthesis. The main topic in August and September will be core-collapse supernovae, including the explosion mechanism, the role of the nuclear equation of state, and explosive nucleosynthesis. The contributions that nuclear experimentalists and observers can make to our understanding of galactic chemical evolution will be emphasized throughout the program.

The third INT program on "Hard QCD Probes of Dense Nuclear and Hadronic Matter" will run from October 1, 1990 to January 30, 1991. It is being organized by Miklos Gyulassy, Berndt Mueller, and Larry Wilets. It will deal with new problems in nuclear many-body physics, including the that of quark and gluon propagation in very dense matter, at high baryon density or high temperature. The program will address theoretical problems in nuclear chromodynamics common to all high energy probes of nuclei. The program will begin with a mini-workshop, followed by a theoretical workshop in early October.

The Spring 1991 workshop will be on "Electromagnetic Interactions and the Few Nucleon System" and is being organized by Jim Friar, Wick Haxton and a possible third physicist. Problems to be addressed include the continuum three-body problem, relativistic formulations of few-body problems, and theoretical investigations of electron scattering

experiments related to existing and forthcoming electron accelerators.

The Summer 1991 program is being organized by Nathan Isgur and will be on nucleon structure. If you are interested in any of these programs, please communicate with the organizers, or with Ernest Henley at the University of Washington.

### 14. BUDGET REPORT FROM THE NUCLEAR SCIENCES RESOURCE COMMITTEE, L. L. Riedinger, Chairperson

A summary of the President's January budget request to the Congress was contained in the February newsletter. For the National Science Foundation, the overall FY91 request is up by 14% compared to FY90, which includes a 12% increase for Mathematical and Physical Sciences, 5.2% for Physics, and 3.6% for Nuclear Science. In the Department of Energy, the FY91 request for Nuclear Physics is up by 14% and includes \$65 million for continuing CEBAF construction and \$15 million for beginning construction of RHIC.

The budget process will continue as usual into the fall, and may be even more rancorous than ever. For example, the executive and legislative branches of government are fighting over the level of cuts in the defense budget. Some observers feel that the best defense budget for the administration will occur only if there is no agreement on the overall budget, continuing budget resolutions are passed, and the Congress is forced to initiate the Gramm-Rudman-Hollings cuts in the fall. This would obviously affect both the NSF and the DOE.

During the Washington APS meeting, a group of DNP leaders visited various offices on Capitol Hill: Jim Ball, Virginia Brown, Gary Crawley, Bob Eisenstein, and Lee Riedinger. The purposes were to support the budget request for nuclear science, tell about recent happenings in our field, discuss the Long Range Plan, and in general keep the lines of communication open. The DNP delegation was well received, as Capitol Hill staff are always interested in hearing the reasoned input of scientists. The visitors received several strong impressions from these meetings. First, the staff members visited uniformly expressed admiration for the work of the nuclear science community in writing a long range plan. They felt that this is a great help to the Congress in deciding funding priorities. Secondly, there are many good feelings about Alan Bromley and his team at the Office of Science and Technology Policy. Effective coordination of science policy is now being done very well in the executive branch. Thirdly, everyone is interested in pre-college science and math education and struggling with how to go about addressing the problem with federal programs. And,

finally, there is a real concern over how basic research will fare over the long term relative to big-ticket NASA items (Space Station and Man to Mars), since NSF, the science part of DOE, and NASA are in the same budget function 250 category.

DNP members who have questions or input on the issues discussed here are encouraged to contact Lee Riedinger (RIEDINGE@UTKVX) by bitnet.

#### **15. UPDATE ON THE SUPPLY OF STABLE ISOTOPES FROM THE NUCLEAR SCIENCES RESOURCE COMMITTEE, L. L. Riedinger, Chairperson**

The February Newsletter contained a summary of the rapid changes in the DOE program for enriched stable isotopes. This program includes a sales and a loan component, both of which are important to the nuclear science community. The changes in the program have resulted in recent difficulties for some nuclear physics groups in obtaining stable isotopes, prepared targets, or new loans. Many of these difficulties have been reported to DOE, and now there seems to be genuine efforts to find solutions. The recent progress includes the following:

1. DOE officials now appear to be aware of the concern in the nuclear science community about these problems. Some additional funds have been committed to the Chemical Technology Division at ORNL to restore a portion of the curtailed isotope separation operations.
2. Efforts are underway to re-establish some target-making capabilities at Oak Ridge.
3. The announced pricing policies for loans of isotopes in the Research Materials Collection have not yet been implemented.

On the other hand, prices for the purchase of enriched isotopes now reflect replacement rather than original production costs, and future purchases of stable isotopes seem certain to be more costly.

There are many ongoing discussions at various levels of government about the enriched isotope program. A number of questions about the future of the program are yet to be answered, including the long-term policy for the loan pool and whether special program funds will be necessary to insure that the needs of the nuclear science community will be satisfied.

The enriched stable isotopes problem was discussed at the March 30 meeting of the DOE/NSF Nuclear Science Advisory Committee (NSAC), and Drs. John Fox (NSF) and Richard Meyer (DOE) have been asked to examine the issues involved. Steve Yates (YATES@LLL-

WINKEN.LLNL.GOV) and Lee Riedinger (RIEDINGE@UTKVX) are continuing to follow these issues, and you are encouraged to contact them with input or for additional information.

#### **16. 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, Virginia R. Brown, Lawrence Livermore National Laboratory, P. O. Box 808, L-288, Livermore, CA 94550. The retail price of Volume 39 (to be published December 1989) is \$49.00 USA and Canada/\$53.00 elsewhere. In what follows the price for USA and Canada is before the slash; the price elsewhere follows the slash. For DNP members the price for Volumes 38 and 39 is \$35.00/\$38.00. Back issues for Vols. 36-37 are \$34.00/\$37.00 retail and \$24.00/\$26.00 for DNP members. Back issues of Vols. 12-35 are \$30.00/\$33.00 retail and \$21.00/\$24.00 for DNP members. Other Annual Reviews are also available. 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. The order should include the address of the DNP member to whom the volume will be mailed (fourth class book rate). Books will be shipped directly from Annual Reviews, Inc.

#### **17. REPORT FROM SAM AUSTIN, EDITOR PHYS. REV. C**

*Growth of the Journal:* Physical Review C is now truly an international journal, with about 50% of papers from non-US authors. The journal has grown over the past three years, with 1989 receipts up about 20% from the average of 1984-86. That growth is primarily due to non-US contributions; the number of US papers has remained approximately constant.

*Rapid Communications:* The changes in the Rapid Communications Section begun in July 1989 have apparently met a need; the number of Rapids published increased from 70 in 1988 to 105 in 1989.

*Table of Contents:* New headings for the Table of Contents will be used beginning with the 1 July issue. Their purpose is to reflect better the emerging directions of the field and in particular to make it clear that Physical Review C welcomes papers on sub-nucleon aspects of nuclei, on ultra-relativistic nuclear collisions, and on nuclear tests of the standard model.

*Page Charges:* A Task Force will be formed to examine the page charge system for APS journals. Among the issues that will presumably be considered

are: should page charges be increased to bear a larger share of the cost of the journals; should they be decreased or eliminated; what fraction of publication costs should page charges bear; should the quota system for papers which do not pay page charges be re-established. If you have opinions on this subject you can send them to me or to the Task Force when it is formed.

## 18. FUTURE CONFERENCES

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

"Seventh Symposium on Radiation Measurements and Applications", May 21-24, 1990 to be held at The University of Michigan, Ann Arbor, Michigan. [For further information contact: Helen Lum, Symposium Secretary, 3034 Phoenix Memorial Laboratory, The University of Michigan, Ann Arbor, Michigan 48109-2100.]

"Third International Spring Seminar on Nuclear Physics: Understanding the Variety of Nuclear Excitations," May 21-25, 1990 to be held in Ischia, Italy. [For further information contact: A. Covello, Dipartimento di Scienze Fisiche, Universita di Napoli, Mostra d'Oltremare, Pad. 20, 80125 Napoli, Italy, phone: (81) 7253402, Telex 720320 INFNNA I, Fax: (81) 7253449, bitnet: "lem@na.infn.it"].

"Gordon Research Conference on Nuclear Chemistry", June 18-22, 1990 to be held at Colby-Sawyer College (North Site), New London, New Hampshire. [For further information contact: W. Udo Schroder, Chairman, 465 Hutchison Hall, Univ. of Rochester, Rochester, NY 14627, phone: (716) 275-8263, Fax: (716) 473-6889, bitnet: "schroeder@uornsr1"]

"XII International Conference on Particles and Nuclei (PANIC '90)," June 25-29, 1990 to be held at the Massachusetts Institute of Technology, Cambridge, MA, USA. [For further information contact: Dr. T. William Donnelly, Scientific Secretary, Laboratory for Nuclear Science, M.I.T., Bldg. 26-405, Cambridge, MA 02139, phone: (617) 253-1717, bitnet: "panic90@mitlns"].

"CORINNE 90" - International Workshop on Particle Correlations and Interferometry in Nuclear Collisions, " June 28-30, 1990 to be held in NANTES (France). [For further information, contact: Pr. D. Ardouin, Nuclear Physics Dept., Faculté des Sciences - 2 rue de la Houssinière, 44072 NANTES, Cedex 03., phone: 40 37 30 66, bitnet: "ardouin@frcpn11"].

"Workshop '90 on Heavy-Ion Physics Research", July 17-19, 1990 to be held in Chalk River, Canada. [For further information, contact: I. S. Towner, Atomic Energy of Canada Limited, Research Company, CRNL, Chalk River, Ontario, Canada K0J 1J0, phone: (613) 584-3311, ext. 4064, bitnet: "01567@aeclcr"].

"Gordon Research Conference on Photoneuclear Reactions," to be held August 6-10, 1990 Tilton School, Tilton, New Hampshire. [For further information contact: R. J. Holt, Physics Division-203, Argonne National Laboratory, Argonne, IL 60439-4843, phone: (708) 972-4012, Fax: (708) 972-3903].

"Gordon Research Conference on the Dynamics of Simple systems in Chemistry and Physics", [Few-Nucleon and Few-Electron Systems], August 13-17, 1990, to be held at Proctor Academy, Andover, New Hampshire. [For further information contact: J. L. Friar, MS B-283, Los Alamos National Lab., Los Alamos, NM 87545, phone: (505) 667-6184, bitnet: "friar@lampf"].

"Pittsburgh Workshop on Soft Lepton Pair and Photon Production", 6-8 September 1990, to be held in Pittsburgh PA. [For further information contact: Julia A. Thompson, Dept. of Physics and Astronomy, Univ. of Pittsburgh, Pittsburgh, PA 15260, phone: (412) 624-9060, bitnet: "jth@pittvms"].

"Sixth Interdisciplinary Laser Science Conference," 18-21 September 1990, sponsored by the APS Laser Science Topical Group and joint sessions with the DNP, to be held in Minneapolis, MN. [For further information, contact: Frank Hartmann, Department of Chemistry, Brookhaven National Laboratory, Upton, New York 11973, phone: (516) 282-4336 or 5815 (Fax), bitnet: "hartmann@bnlnchm"].

"Topical Conference on Particle Production near Threshold", Oct. 1-3, 1990 to be held at Brown County Inn, Nashville, Indiana. [For further information contact: Edward J. Stephenson, Indiana University Cyclotron Facility, 2401 Milo B. Sampson Lane, Bloomington, IN 47405, phone: (812) 855-9365, Fax: (812) 855-6645, Telex: 272279 Indiana U Blom, bitnet: "stephenson@iucf"].

"Seventh International Symposium on Capture Gamma-Ray Spectroscopy and Related Topics", October 14-19, 1990 to be held at the Asilomar Conference Center, Pacific Grove, California. [For further information contact: R. W. Hoff, Lawrence Livermore National Laboratory, M/S L-234, Livermore, CA 94550, phone: (415) 422-6664, Fax: (415) 422-3160, email: "hoff@llnl-winken.llnl.gov."]

"Eleventh International Conference on the Application of Accelerators in Research and Industry", November 5-8, 1990, to be held at the University of North Texas in Denton, Texas. [For further information contact: Jerome L. Duggan, Physics Department, The University of North Texas, P.O. Box 5368, Denton, TX 76203-5368, phone: (817) 565-3252, or 3250 bitnet: "fc66@untvax" Fax: (817) 565-2227].

"Real Time Computer Applications in Nuclear, Plasma and Particle Physics," June 18-21, 1991, sponsored by the Nuclear

and Plasma Sciences Society of the IEEE (preceeded by a short course). [For further information contact: K. D. Mueller, KFA Julich, D-5170 Julich, W. Germany, bitnet: "mueller@djukfa52" or US contact: Richard Kouzes, Princeton University, phone: (609) 258-4343, email: "kouzes@pupcyc.princeton.edu"].