

DNP



NEWSLETTER NO. 81
February 1990

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

ACCOMPANYING THIS NEWSLETTER:

16-19 April APS meeting, Washington DC:

- A listing of the Symposia of the DNP, the invited speakers, and titles of their talks.

24-27 October DNP Meeting, Urbana-Champaign:

- A nomination form for invited speakers.
- A pre-registration form which includes workshops and banquet.
- A housing form.
- United Airlines discount information.
- A Poster.

FUTURE DEADLINES



- 1 April 1990 - APS Fellowship Nominations (see item 9).
- 11 May 1990 -Nomination forms for invited speakers for the Urbana-Champaign meeting.
- 20 June 1990 - Abstracts for Urbana-Champaign meeting (See item 7).

1. RESULTS OF ELECTION: OFFICERS AND EXECUTIVE COMMITTEE FOR 1990

By the deadline date of November 10, 1989, 899 properly identified ballots were received for the election of Division Councillor, and officers and members of the Executive Committee. The results of the election are as follows: Gerald T. Garvey, was elected Division Councillor, for a four year term, Gerard M. Crawley was elected Vice-Chairman and Virginia R. Brown Secretary-Treasurer for one year terms. John Cameron, Noemie Benczer-Koller, and Peter D. Parker were elected to two-year terms on the Executive Committee. The counting of the ballots was supervised by Tellers, Raymond A. Alvarez, Luisa F. Hansen, W. Michael Howard, Ted

Komoto, Robert Lanier, Mohammed G. Mustafa, and Betty Voelker, all of LLNL. The members of the 1990 Executive Committee (except for the Division Councillor, terms end at the Spring APS meeting following the year indicated) are as follows:

James B. Ball, ORNL, Chairman (1991)
Gerard M. Crawley, Michigan State University, Vice-Chairman (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 Chairman (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)

2. COMMITTEES OF THE DNP

The terms of some of the members of the following DNP committees expire in April 1990: Program, Fellowship, Nominating, Nuclear Science Resources, and "Physics News". Suggestions from the DNP membership for new members of these committees for 1990 are welcome and should be sent to James B. Ball. Members of these committees for 1990 will be listed in the May newsletter.

3. 1990 BONNER PRIZE WINNER

Vernon W. Hughes, Department of Physics, Yale University, New Haven, CT has been awarded the 1990 Tom W. Bonner Prize in Nuclear Physics. The citation reads as follows:

"For his many contributions to fundamental measurements of electroweak and strong interactions. We cite in particular his early recognition of the importance of high energy polarized electron beams and his role in the measurement of the spin-dependent electroweak structure functions of the nucleon."

Professor Hughes will present the Bonner Prize lecture entitled, "High Energy Polarized Electrons and Muons for the Study of Fundamental Interactions" at the Spring APS Meeting in Session G3 at 9:00 a.m. on Wednesday in the South Salon of the Ramada Renaissance Techworld Hotel. The 1990 Bonner Prize Committee consists of W. Benenson, R. Davis, Jr., G. Garvey, E. F. Redish (Chair), and J. Symons.

4. 1990 DISSERTATION AWARD

The Dissertation Award of the Division of Nuclear Physics of the American Physical Society will be awarded to Dr. Michael Jeffery Musolf. The citation which the Award Committee has composed reads as follows:

"The Dissertation Award of the Division of Nuclear Physics of the American Physical Society is awarded to Dr. Michael Jeffery Musolf for his thesis entitled, "Electroweak Corrections to Low-Energy Parity-Violating Neutral Current Interaction" (Princeton University, 1989). This award is made on the basis of the outstanding importance, quality, and completeness of the work. The calculations are of great value to our understanding of electroweak observables and radiative corrections to them, in particular the nature of parity-violating effects in electron and neutrino scattering from nucleons and nuclei. These calculations will have an important impact on tests of the Standard Model planned at the CEBAF, LAMPF, and MIT/Bates accelerator facilities."

Dr. Musolf's thesis work was done at Princeton under the direction of S. Treiman, and co-supervised by W. Haxton and B. Holstein. He currently holds a Postdoctoral appointment at MIT. Dr. Musolf will give the Dissertation Award lecture entitled, "Electroweak Corrections to Low-Energy Parity-Violating Neutral Current Interactions" in Session G3 on Wednesday in the South Salon of the Ramada Renaissance Techworld Hotel at the Spring APS Meeting. The Award will be presented at the DNP Business Meeting following Session G3.

A total of seven candidates were nominated for the award. The selection committee (consisting of J. Cramer, R. Eisenstein (Chair), S. Koonin, A. Nathan, and B. Serot) felt that all of the work submitted was of very high quality.

5. NEW DNP FELLOWS

The following DNP members are newly elected Fellows of the APS:

John C. Browne
Thomas Boykin Clegg
William A. Friedman
Ronald Cecil Johnson
Richard Matey
Ernest J. Moniz
Shoji Nagamiya
Stuart Pittel

Robert Landon Ray
James P. Vary
Stephen Joseph Wallace
Ronald R. Winters
Malgorzata Zielinska-Pfabe

6. SPRING APS MEETING, WASHINGTON, D.C., 16-19 APRIL 1990.

The Division of Nuclear Physics has arranged five symposia of invited papers for the Spring meeting. In addition, Joint Symposia with the Division of Particles and Fields, the Division of Particles and Beams and the Division of Astrophysics have been organized. The times locations and titles of these sessions along with the speakers and the titles of their talks are listed at the end of this newsletter.

The Business Meeting of the DNP is scheduled for **11:30 a.m. Wednesday**, 18 April in the South Salon of the Ramada Renaissance Techworld Hotel following session G3. The current agenda includes:

- A. Fellowship Awards
- B. 1990 Dissertation Award Presentation
- C. 1990 Bonner Prize Congratulations
- D. Bonner Prize Funding Report
- E. Fall Meeting Announcements
- F. Stable Isotopes Supply Problems

7. 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 25-27 October at the University of Illinois at Urbana-Champaign. 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.

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

The Plenary Session at the 1989 Asilomar meeting commemorated the first suggestion of the "Plenary Session concept", which was made at the 1985 Executive Committee meeting at Asilomar. These sessions, which have been an important part of the long range planning exercise, actually began at the Vancouver meeting, and continued at New Brunswick and Santa Fe. Now that the LRP exercise is complete, the question of whether or not to continue the plenary session has come up.

The Asilomar Executive Committee voted to continue them, but based on a wholly different idea: to provide "colloquium style" talks on topics of interest in nuclear science to an audience of nuclear scientists. The purpose is frankly educational, and is intended to provide a glimpse into these topics in a way that is accessible to that audience.

This new opening session will also be used for a "business-style town meeting" to address issues of general interest to the community.

Meeting Program and Invited Speaker Nominations

The Divisional meeting will consist of five sessions of invited papers and approximately 20 sessions of contributed papers. Overhead projectors will be provided in each room; slide projectors will be available only for invited papers and only if requested in advance.

The five invited sessions planned for this meeting are organized as follows: Subcommittees of the 1990 Program Committee will arrange two sessions of invited papers on selected "topics" to be chosen at the 15 April Washington, DC Program Committee meeting. Suggestions for "topics" should be sent in March and early April to the 1990 Program Committee Chairman, G. M. Crawley. One invited session is organized by the Urbana-Champaign Local Committee on topics of local interest. Speakers for the other two sessions will be selected by vote of the Program Committee from suggestions from DNP members. The "voted" sessions will be arranged by the Program Committee Chairman, G. M. Crawley. Nominations (forms enclosed) from the general membership are encouraged and should be mailed as early as possible before the **11 May 1990 deadline**.

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 TRIPLICATE 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.

8. FUTURE DNP FALL MEETING

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 APS FELLOWSHIP

The procedure for the election of a Member to Fellowship is outlined in the Membership Directory of the APS under "Constitution and Bylaws." A nomination form, which cites the principal contributions of the candidates to physics, should be prepared and signed by two members of the society. The total number of members who could be elected to Fellowship in a given year is one half of one percent of the total APS membership.

The DNP deadline is normally 1 April. Nomination forms are available from Ms. Evelyn Bennett (The American Physical Society, 335 East 45th Street, New York, NY 10017). Completed forms should be returned to Dr. W. W. Havens, Jr. at the same address.

The 1990 DNP Fellowship Committee is comprised of H. E. Jackson, N. Benczer-Koller, and S. E. Koonin (chairman). The Fellowship Committee reviews the nominations for APS fellowship referred to the DNP and recommends a slate of candidates which is forwarded to the DNP Executive Committee and then to APS Council for approval.

It is particularly important for nominators to ensure that the cases which they prepare for the Fellowship Committee are well documented. In addition to that requested on the nomination form, information such as lists of invited talks, awards, professional activities, committee services, and participation in organization of conferences is very helpful. Inclusion of a complete publication list is highly recommended.

The DNP has adopted the following Fellowship Criteria Guidelines. To be chosen as a fellow an APS member should: 1) have a record of excellence in research that has been sustained several years, and 2) have done at least one major, original work that has influenced his/her speciality in a distinctive way.

The list of APS Fellows (by APS subunit) elected in a given year is published in the February Bulletin the following year. The names of newly elected DNP Fellows are published in the February newsletter (see Item 5) and the awards are presented at the DNP Business meeting (see Item 6) of the Spring APS meeting.

10. BONNER PRIZE FUNDING UPDATE, Bob Eisenstein

The Tom W. Bonner Prize is the only nuclear physics prize in the APS list of prizes. (There is, of course, 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.

The response to the Bonner Prize funding deficit emergency has been good so far. We had on hand in existing funds about \$8,500 at the start of fund-raising, and we now have in addition about \$14,500 in contributions (ranging in size from \$10 to \$5,000) and \$27,000 in contributions from laboratories and universities. These contributions have come from Chalk River, U. California, CEBAF, Colorado, Illinois, Indiana, Ohio State, TRIUMF, TUNL, and Yale. In all, we now have in hand \$50,000. In addition, we have firm pledges from Bicon Corporation, BNL, IDM Corporation, LAMPF, MIT, Rice, and Stony Brook. IF ALL PLEDGES TURN INTO CONTRIBUTIONS we will meet our target of \$75,000 on hand. However, this may not be the case, so you are again urged to do what you can in terms of a contribution to the endowment of the only prize the nuclear physics community has. The only disappointment thus far is that the corporate community has been much less forthcoming than had been anticipated.

11. NUCLEAR SCIENCE ADVISORY COMMITTEE (NSAC) NEWS, Bob Eisenstein

An NSAC meeting was held at the conclusion of the Fall DNP meeting at Asilomar on October 14 and 15. The main function of the meeting was to bring to a convergence the 1989 Long Range Plan for Nuclear Science. The Plan is now complete, and has been sent to the DOE and NSF. It is also being printed for distribution at Brookhaven and should be available shortly.

The community owes a tremendous vote of thanks to Peter Paul -- and to the NSAC Long Range Plan Working Group -- for having produced an excellent summary of the future scientific opportunities and needs of the nuclear physics community. It is also very gratifying to know that nuclear physics is highly admired for being able to address these complex issues in a sensible, complete, and unified manner. The fact that our field, once every five years or so, can speak with one voice, in a compelling and forthright manner, is a major accomplishment.

David Hendrie (DOE) announced that a decision on the Theory Center had been made. Since the meeting the Center has been formally established at the

University of Washington in Seattle. He also announced that the GammaSphere review panel had recommended strongly the construction of the facility, as well as siting it at the Holifield facility. Since the meeting, the project has been approved by the DOE and construction start-up funds are a part of the 1991 Presidential budget. The US contribution to the SNO project, and the RHIC facility, are also parts of that budget. Final approval, of course, hopefully will be given by Congress in the fall.

It is worth noting that all these projects were strongly endorsed by NSAC as logical, well-planned extensions to our field, and as a part of the Long Range Plan.

12. NATIONAL INSTITUTE FOR NUCLEAR THEORY

A National Institute for Nuclear Theory (INT) has now been established at the University of Washington, with major funding being provided by the Department of Energy. The Institute will host programs of 3-6 months duration on topics of current interest in nuclear physics. Emphasis will be given to the relationship to experimental physics and the connections to neighboring disciplines. A National Advisory Committee (NAC) will advise the Director, who will be Ernest M. Henley for the first year, while a permanent director is being sought. Members of the NAC are Gerald E. Brown (Univ. of New York at Stony Brook), Gordon Baym (Univ. of Illinois), Torleif Ericson (CERN), Maurice Goldhaber (Brookhaven Natnl. Lab.), Miklos Gyulassy (Lawrence Berkeley Lab.), Franco Iachello (Yale Univ.), Steven Koonin (California Inst. Technology), Art McDonald (Chalk River, Canada), John Negele (Massachusetts Institute of Technology), J. Dirk Walecka (CEBAF), Frank Wilczek (Institute for Advanced Study, Princeton), and Lincoln Wolfenstein (Carnegie-Mellon Univ.) The NAC had its first meeting on January 20 in New York. It set up a search committee for the permanent director of the Institute and decided on some programs for next year.

The Institute will begin operations on March 15, 1990. The first two programs will be on quarks in nuclei (Spring) and nuclear astrophysics (Summer). On the advice of the NAC, programs to follow will include electron scattering on light nuclei, and what we have learned from high energy heavy ion reactions. Thereafter programs will be determined by the proposals we receive from the community and by the advice of our National Advisory Committee. Anyone who is interested in participating in any of the above programs should communicate with any of the undersigned.

The success of this Institute depends, in large measure, on the willingness of the nuclear physics community to contribute to it. These contributions are in the form of suggestions for programs and participation.

Thus, we not only welcome, but seek your suggestions for future programs. These suggestions will be considered by the NAC at its next meeting in August of 1990 and should reach any of the physicists listed below before then.

We invite all interested members of the DNP (experimental as well as theoretical physicists) to join a group of Institute Affiliates. To do so, please send your name and address to any of the undersigned theorists. It is our intention to keep the Institute Affiliates informed of the INT activities and plans by means of periodic newsletters.

We, at the University of Washington, will make every effort to guarantee that the new Institute successfully serves the broad needs of the nuclear physics community. With your help, the Institute will be a success.

Wick Haxton
Ernest Henley
Gerald Miller
Lawrence Wilets

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

President Bush submitted his proposed FY91 budget to the Congress on January 29. Contained in it are healthy increases for scientific programs. In the Department of Energy request, the budget for Nuclear Physics is proposed to increase by 14% from a base of \$289.7 million in FY90 to \$330.7 million in FY91. This FY90 base figure is lower than the amount approved by law (\$300 million - see the previous newsletter) due to adjustments for the Environmental Restoration and Waste Management program, for a General Reduction imposed by the funding bill, and for the final Gramm-Rudman-Hollings sequestering. The proposed FY91 budget includes \$65 million for continuing construction of CEBAF, and \$15 million to begin construction of RHIC. The capital equipment request includes \$5.5 million for the initiation of the Gammasphere and \$2.776 million for the Sudbury Neutrino Observatory. One item sure to draw controversy is a reduction from \$8.9 to \$7.3 million in the combined operating budgets for the three heavy-ion accelerators at the national laboratories: the Argonne Atlas facility, the Berkeley 88-inch cyclotron, and the Oak Ridge Holifield facility. The accompanying language indicates that the purpose of this decrease in funds is to "continue phase out activities at one of these three facilities."

The budget request for the National Science Foundation is \$2.38 billion, up by 12% over the current plan for the FY90 budget. Within this total budget is an estimated 11% increase for Research and Related Activities, a 12% increase for Mathematical and Physical

Sciences, and a 5% rise for Physics. Science and Technology Centers would increase in funding to a total of \$27 million.

As usual, the submission of the presidential budget to Capitol Hill begins the long process that usually ends in passage of the funding bills in the fall. Stay tuned. Thanks to Geraldine Shannon of SURA for getting prompt access to the budget documents.

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

Major changes in the Isotope Program at the Oak Ridge National Laboratory are happening rapidly, and some of these are likely to affect the research programs of various nuclear-science groups. As discussed in preliminary form in the last newsletter, the changes in this program have resulted from the transfer of management authority from the Office of Energy Research in the Department of Energy to the Office of Nuclear Energy, under the direction of Donald Erb. The new policies being implemented now are bound to have effects on both the loan pool of stable isotopes (i.e. the Research Materials Collection - RMC) and the sales pool, which has been maintained at a healthy level over the years by separations in the calutrons (large mass separators dating from the 1940's) at Oak Ridge. The RMC has been for many years a pool of stable isotopes available on loan to users for non-destructive purposes. This greatly benefits, for example, neutron scatterers who need large quantities of highly enriched stable isotopes for their experiments.

Planned changes in the stable-isotope program appear to include the following:

1. The RMC pool of stable isotopes will be combined with the normal sales pool into one collection available for sales or for lease. That is, material from the RMC can now be purchased rather than just borrowed.

2. Stable isotopes can be leased from this common pool, and the cost of that will be 1 percent over the prime interest rate per year during the duration of the loan. In the past, borrowers of isotopes from the RMC would be charged only a small handling fee. Some research groups currently have loans of isotopes valued at perhaps \$1 million, which then would necessitate annual lease payments of over \$100,000.

3. The current-year budget for the stable-isotopes program at Oak Ridge was announced in early December to be half of what is needed. This could result in significantly reduced operation of the calutrons for the rest of this fiscal year (until October 1), movement of personnel out of the program, and closing of offices

formerly charged with special preparations (e.g. target making), unless more funds are allocated from DOE.

The changes in this Isotope Enrichment Program are substantial, and are liable to affect many users. The new policies of the Office of Nuclear Energy seem to revolve around selling the large quantity of material in the RMC and allowing substantially less money to operate the calutrons for production of new separated isotopes. Researchers in need of loan material could be hurt in two ways, first by the unavailability of certain isotopes due to some of this RMC material having been sold, and secondly by the high cost of leasing the material that is available. Researchers in need of material to purchase for destructive uses (e.g. making targets) could find that certain isotopes are unavailable in the combined sales/lease pool because funds to run the calutrons for replenishing spent material are insufficient.

With the implementation of these new policies imminent, a delegation visited Mr. Erb at the Department of Energy on December 18 to discuss the impact of the policies on nuclear science. The delegation consisted of: Richard Genung, Director, Chemical Technology Division, ORNL; Lee Riedinger, The University of Tennessee, representing the Division of Nuclear Physics of the APS; Steve Yates, The University of Kentucky (on sabbatical at the Lawrence Livermore National Laboratory), representing the Division of Nuclear Chemistry and Technology of the ACS; Gerhart Friedlander, Brookhaven National Laboratory, representing concerned scientists involved in National Research Council committees.

The delegation presented to Mr. Erb their views and those of the 28 individuals that had contacted Lee Riedinger in the previous month about the imminent changes in the RMC policies. In addition, concern was expressed by the visitors that proposed changes in the policies could have a tremendous detrimental impact not only on RMC users but also possibly on purchases of material from the sales pool. The delegation was warmly received by Mr. Erb, but no indications of changes in the new policies were made.

Another group of interested individuals has addressed this issue in recent weeks. The Advisory Committee on the Isotope Enrichment Program was called to Oak Ridge on January 9 and 10 by the Chemical Technology Division. This committee was chaired by Elliot Pierce and included Bruno Giletti, Glen Gordon, Richard Holmes, Lee Riedinger, Ellis Steinberg, Robert Wolfangel, and Raymond Wymer. Among their recommendations were that the RMC be maintained as a national resource, that charges for the loan of RMC material be limited to recovery of the costs of handling and recertification, and that the calutrons be funded to

operate at a level which maintains the inventory of enriched isotopes for sale.

Nuclear scientists should be aware of other changes taking place in the general isotope program:

a. Users of actinide services at Oak Ridge could be affected by recent changes in that program also. On December 7, the responsibility for the Transuranium Element Production Program (TEPP) was transferred from the DOE Office of Energy Research to the Office of Nuclear Energy (as already accomplished for the stable and radioactive isotopes programs on October 1). Mr. Ray Hunter at DOE now has oversight of the HEPP program. The budget transfer for this program will not occur until FY 91. The community should be concerned with the same issues as discussed here in the context of stable isotopes. That is, decisions on the production and distribution of heavy elements must continue to be made with the needs of the research community firmly in mind. The transfer of this program hopefully does not imply a decrease in the DOE institutional support for this heavy-element resource upon which the research community depends so heavily.

b. The production of radioactive isotopes is also being changed. In a recent change, Oak Ridge now has the direction to produce only three radioisotopes: tritium, ^{85}Kr , and ^{90}Y . It is not clear how or if Oak Ridge will be involved in the production of other isotopes.

It is genuinely difficult to forecast the exact outcome of the policy changes that pertain to the enriched isotope program. The purpose of this memo is to acquaint you with the changes and alert you to problems that could arise. Researchers that depend on the loan of material should contact Mr. Erb and/or their agency contract monitors to assess the financial impact of the newly installed lease charges. Those with general concerns are welcomed to send their comments to Lee Riedinger at the University of Tennessee, Dept. of Physics, Knoxville, TN 37996-1200 [riedinge@utkvtx] or directly to Donald Erb, Director, Office of Isotope Production and Distribution, Department of Energy, NE-48 GTN, Washington, DC 20545.

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, 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.

16. NUCLEAR PHYSICS SUMMER SCHOOL

The third Summer School in Nuclear Physics will be held August 5 through August 17, 1990, on the campus of the University of California, Santa Cruz. The school is intended for advanced graduate students and beginning postdoctoral research associates, and will consist of several courses of introductory lectures. The principal speakers are:

- B. Balantekin, Wisconsin, - "The Use of Symmetry Principles in Nuclear Physics"
- S. Brodsky, SLAC - "QCD in Nuclei"
- G. Fuller, UC San Diego - "The Nuclear Physics of the Big Bang"
- K. Nagamiya, Columbia - "High Energy Heavy Ion Experiments"
- J. Negele, MIT - "The Structure of Hadrons"

The National Science Foundation and the Department of Energy's National Institute for Nuclear Theory of the University of Washington are sponsoring this year's program. Students will be selected on the basis of their academic qualifications and prospects for benefitting from the School. Some financial assistance will be available to those students who otherwise could not attend.

The UCSC campus is located on the Central California coast, 30 miles from the San Jose airport and 70 miles from San Francisco. Ground transportation to the campus is available, and will be coordinated by the School. Both students and lecturers will be housed on campus to maximize interactions among the participants. As requests for admission to last year's Summer School considerably exceeded its capacity, we urge all interested students and postdocs to apply soon to one of the organizers listed below:

Wick Haxton
Department of Physics, FM-15
University of Washington
Seattle, WA 98195

Jorgen Randrup
Nuclear Science Division, 70A
Lawrence Berkeley Laboratory
Berkeley, CA 94720

17. FUTURE CONFERENCES

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

"Sixth Winter Workshop on Nuclear Dynamics", 17-24 February 1990, to be held near Jackson Hole, Wyoming. [For further information, contact: Joseph Kapusta, School of Physics and Astronomy, University of Minnesota, Minneapolis, MN 55455, phone: (612) 624-0506, bitnet: "fvs6269@umnacvx"].

"Nuclear Structure in the Nineties", April 23-27, 1990 to be held in Oak Ridge, Tennessee. [For further information contact: Noah Johnson, Oak Ridge National Laboratory, P.O. Box 2008, Oak Ridge, TN 37831-6371, phone: (615) 574-4739, bitnet: "nrj@ornlsc"].

"Symposium in Honor of Akito Arima: Nuclear Physics in the 1990's", May 1-5, 1990 to be held in the El Dorado Hotel, Santa Fe, New Mexico. [For further information contact: Arima Symposium, MS B243, Los Alamos National Laboratory, Los Alamos, NM 87545, bitnet: "aa90@lampf", Fax: (505) 667-1754].

The Second International Conference and Spring School "Medium- and High-Energy Nuclear Physics", School: May 8-12, 1990; Conference: May 14-18, 1990, to be held in Taiwan, Republic of China. [For further information contact Prof. W-Y. Paunchy Hwang, Dept. of Physics, National Taiwan Univ., Taipei, Taiwan 10764, R.O.C., phone: 02-363-0231, ext. 3159 fax: 02-363-7204 or 02-363-9984, bitnet: "a47b0002@twnmoe10].

"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"].

"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"].

"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 Photonuclear 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].

"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@bnlchm"].

"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@lll-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].

"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) 72553449, bitnet: "lema@na.infn.it"].

"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 (preceded 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"].



1990 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 (this is the first newsletter that is only sent to members who have paid the DNP dues of June 1989). The current DNP membership is 3/4 of its previous value, i.e. 2,486 as compared to 3,332 of a year ago. 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. You may want to reinstate your DNP membership, to do so get in touch with the Membership Department at the New York office of the APS.

APS Meeting - Washington, DC

16-19 April 1990

SYMPOSIA OF THE DNP

9:00-Monday, Center Salon. A2. THE SUBSTRUCTURE OF NUCLEAR MATTER, Carl Dover, presiding.

K. G. Wilson (Ohio State Univ.), "Quarks and Nucleons in the Infinite Momentum Frame."

F. Iachello (Yale Univ.), "Algebraic Models of Hadronic Structure."

D. H. Beck (University of Illinois), "Strangeness in the Proton."

K. Olive (Univ. of Minnesota), "The Quark-Hadron Transition in Cosmology and Astrophysics."

14:00 -Monday, North Salon. B1. NUCLEAR PHYSICS IN THE HEAVENS, G. M. Crawley, presiding.

N. Glendenning (LBL), "Fast Pulsars, Strange-Quark-Matter Stars."

G. Brown (SUNY), "The Life of Large Stars."

T. Weekes (Harvard Smithsonian), "Very High Energy Neutrals from Astrophysical Sources."

K. Lande (Univ. of Penn.), "Observation of Time Variation of Solar Neutrino Flux."

9:00 -Tuesday, West Salon. D4. ACCELERATORS FOR NUCLEAR PHYSICS, Peter Paul, presiding.

H. A. Grunder (CEBAF), "The CEBAF Project."

S. Ozaki (BNL), "Physics with High Energy Heavy Ion Collisions."

E. W. Vogt (TRIUMF), "Plans and Objectives for KAON Factories."

J. B. Flanz (MIT), "The MIT Bates Performance Upgrade."

L. M. Bollinger (Argonne), "The Uranium Upgrade of ATLAS."

T. A. Antaya (MSU), "The Superconducting ECR Ion Sources Early Results."

9:00 -Wednesday, South Salon. G3. MEDIUM AND HIGH ENERGY PROBES OF NUCLEI, J. Ginocchio, presiding.

1990 Tom W. Bonner Prize Winner Lecture: V. W. Hughes (Yale Univ.), "High Energy Polarized Electrons and Muons for Study of Fundamental Interactions."

1990 DNP Dissertation Award Winner Lecture: M. J. Musolf (MIT), "Electroweak Corrections, Hadronic Neutral Currents and the Weinberg Angle."

C. N. Papanicolas (Univ. of Ill.), "(e,e' γ): "A Precision Probe for Discrete and Continuum Excitations."

R. Tacik (TRIUMF), "Spin Effects in Pion-Nucleus Scattering: First Results and Outlook."

11:30 - Wednesday, South Salon. DNP BUSINESS MEETING

14:00 - Wednesday, South Salon. H3. EXPLORATION OF NUCLEAR DYNAMICS THROUGH HEAVY ION REACTIONS, A. C. Mignerey, presiding.

P. H. Stelson (ORNL), "Intimations of Neck Formation in Heavy-Ion Subbarrier Fusion Reactions."

D. Hilscher (Hahn-Meitner-Institut Berlin), "Timescales of the Fission Process."

W. U. Schroder (Univ. of Rochester), "Non-equilibrium Energy Redistribution in Dissipative Nuclear Reactions."

G. D. Westfall (Mich. State Univ.), "Collective Flow and Multi-Fragment Emission in Intermediate Energy Nucleus-Nucleus Collisions."

J. Randrup (LBL), "Theory of Nuclear Multifragmentation."

19:30 -Wednesday Eve., Center Salon. I2. TECHNIQUES FOR NEW INSIGHTS INTO NUCLEAR AND ATOMIC PROPERTIES, F. E. Bertrand, presiding.

K. Snover (Univ. of Wash.), "New Results on Deformation and on Isospin Mixing from Giant Dipole Decays in Highly Excited Nuclei."

J. C. Hardy (Chalk River), "Superallowed Nuclear β -Decay as a Probe of the Standard Model."

G. Sprouse (SUNY), "New Measurements of Nuclear Charge Radii with Laser Spectroscopy of Stopped Reaction Products."

J. P. Schiffer (Argonne), "Condensed Crystalline State in Confirmed Ions."

9:00 - Thursday, Center Salon. I2. FUNDAMENTAL SYMMETRIES AND RARE PROCESSES, F. C. Shoemaker, presiding.

W. Haxton (Univ. of Wash.), "Nuclear Tests of Parity Nonconserving and Time Reversal Invariance."

S. E. Vigdor (Indiana Univ.), "Charge Symmetry Breaking in n-p Scattering."

J. S. Frank (BNL), "Search for the Rare Decays $K^+ \rightarrow \pi^+ +$ Missing Neutrals."

W. R. Molzon, (Univ. of Calif. Irvine), "New Tests of Electron- and Muon-Number Conservation in Kaon Decays."

13:30 -Thursday, Center Salon. K2. NUCLEAR STRUCTURE AT HIGH MOMENTUM AND ENERGY TRANSFER, R. Holt, presiding.

D. F. Geesaman (Argonne), "The FNAL E665 Experiment--Deep-Inelastic Muon Scattering From Nucleons and Nuclei."

M. Gyulassy (LBL), "What Happens to a Jet in a Nucleus."

Z.-E. Meziana (Stanford Univ.), "The Quasi-free Region at High Momentum Transfer."

F. E. Close (Univ. of Tenn./ORNL), "Polarized and Unpolarized Parton Distributions in Nucleons and Nuclei."