



TO: Members of the Division of Nuclear Physics, APS
FROM: Virginia R. Brown, LLNL - Secretary-Treasurer, DNP

**ACCOMPANYING THIS
NEWSLETTER :**

**20-23 APRIL APS MEETING,
WASHINGTON, DC**

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

**14-17 OCTOBER DNP MEETING,
SANTA FE, NM**

- A nomination form for invited speakers.
- A pre-registration form which includes workshops and banquet.
- A housing form.
- Map
- Poster.

Future Deadlines

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| <ul style="list-style-type: none">• 1 April 1992 - APS Fellowship Nominations (See item 9).• 3 May 1992-Nomination forms for invited speakers for the Santa Fe, New Mexico meeting.• 19 June 1992- Contributed Abstracts for the Santa Fe, New Mexico fall meeting (See item 8).• 1 Sept. 1992-Nominations for 1993 Bonner Prize. |
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**1. RESULTS OF ELECTION:
OFFICERS AND EXECUTIVE
COMMITTEE FOR 1992.**

By the deadline date of February 17, 1992, 709 properly identified ballots were received for the election of officers and members of the Executive Committee. The results of the election are as follows: Noemie Benczer-Koller was elected as Vice-Chair and Virginia R. Brown as Secretary-Treasurer for one year terms. Lawrence S. Cardman, Walter Henning, and Robert D. McKeown were elected to two-year terms on the Executive Committee. The counting of the ballots was supervised by Tellers Jim Costales, Ted Komoto, Steve Krieger, Craig Sangster, Neal Snyderman, Jim Thomas, Betty Voelker, and Nancy Willard, all of LLNL. The members of the 1992 Executive Committee are as follows:

*Wick C. Haxton, University of Washington,
Chair (1993)*

*Noemie Benczer-Koller, Rutgers University,
Vice-Chair (1993)*

*Gerard M. Crawley, Michigan State Univ.,
Past-Chair (1993)*

*Virginia R. Brown, LLNL, Secretary-
Treasurer (1993)*

Gerald T. Garvey, LANL, Division
Councillor (1993)
Stephen E. Koonin, Caltech, Division
Councillor (1995)
Lawrence S. Cardman, University of Illinois
(1994)
Richard F. Casten, BNL (1993)
Stuart J. Freedman, LBL (1993)
Walter Henning, ANL (1994)
Robert D. McKeown, Caltech (1994).
Lee L. Riedinger, University of Tennessee
(1993)

2. COMMITTEES OF THE DNP

The terms of some of the members of the following DNP committees expire in April 1992: Program, Fellowship, Nominating, Nuclear Science Resources, and "Physics News". Suggestions from the DNP membership for new members of these committees for 1992 are welcome and should be sent to Gerard M. Crawley. Members of these committees for 1992 will be listed in the May newsletter.

3. 1992 BONNER PRIZE WINNERS

Henry G. Blosser, Michigan State University and Robert E. Pollock, University of Indiana have been awarded the 1992 Tom W. Bonner Prize in Nuclear Physics. The citation reads as follows:

"For their pioneering development of innovative accelerator configurations which have allowed new levels of precision and flexibility for nuclear physics research. The room temperature and superconducting cyclotron developments and the novel beam cooling techniques have formed the basis for a new generation of facilities throughout the world which are currently providing important tools to advance our understanding of nuclear and particle properties in the medium energy regime. Their

developments have also led to important advances in accelerator techniques for the neighboring disciplines of Atomic and Medical Physics."

Professor Blosser with the title "Superconducting Cyclotron" and Professor Pollock with the title "Beam Processing" will present their Bonner Prize lectures at the Spring APS Meeting in Session I1 at 8:00 a.m. on Wednesday in the North Salon of the Ramada Renaissance Techworld Hotel (see the accompanying list of DNP Symposia for details). The 1992 Bonner Prize Committee consists of H. C. Britt (Chair), V. W. Hughes, D. W. Miller, R. J. Perry, and F. S. Stephens.

4. 1992 DISSERTATION AWARD

The Dissertation Award of the Division of Nuclear Physics of the American Physical Society will be awarded to Dr. James Edward Koster for his thesis entitled, "A Test of Time Reversal Invariance with Polarized Neutrons and Aligned Holmium-165" (North Carolina University, 1990). The Citation reads as follows:

"For his measurement of bounds on time reversal invariance in polarized neutron transmission through aligned nuclei. His experiment shows the feasibility for searching for T violating terms in the forward elastic scattering amplitude by means of a cryogenically-aligned rotating holmium target, and points the way to future precision transmission tests of time reversal invariance in nuclear physics."

Dr. Koster's thesis advisor was Professor Chris Gould of North Carolina University. Dr. Koster, currently at LANL, will give the Dissertation Award lecture entitled, "Test of Time Reversal Invariance in

2-MeV Neutron Transmission" in Session I1 on Wednesday in the North Salon of the Ramada Renaissance Techworld Hotel at the Spring APS Meeting.

A total of eight candidates were nominated for the award. The selection Committee (J. B. Ball, G. M. Crawley (Chair), B. R. Holstein, A. M. Nathan, and E. V. Hungerford) felt that the award was extremely competitive this year and were very gratified to see the number of fine young scientists emerging in the field.

5. NEW DNP FELLOWS

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

Raymond G. Arnold
Frank T. Avignone, III
Frederick Daniel Becchetti
James Robert Beene
Jules P. G. Deutsch
Dieter Fick
Bernard Frois
Tsung-Shung Harry Lee
Fred Myher
Alan Marc Nathan
Frank Tabakin
Henry Richard Weller

6. FUTURE DNP FALL MEETINGS

The present schedule for fall meetings is as follows:

1992	October 14-17 Santa Fe, NM
1993	October Asilomar, CA
1994	October 26-29 Univ. of Arizona
1995	October Univ. of Indiana

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.

7. SPRING APS MEETING, WASHINGTON, D.C., 20-24 APRIL 1992.

The Division of Nuclear Physics has arranged five symposia of invited papers for the Spring meeting. In addition, five joint symposia with the Division of Particles and Fields, the Division of Beams Physics, the Division of Atomic, Molecular, and Optical Physics, the Few Body Systems & Multiparticle Dynamics Topical Group, 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. There are 22 DNP contributed sessions for the Spring meeting. The contributed abstracts were arranged into sessions by: Tony Baltz (BNL), Ramiro Debbe (BNL), Ben Gibson (LANL), Bill Zajc (Columbia), and Larry Zamick (Rutgers).

The Business Meeting of the DNP is scheduled for 11:00 a.m. Wednesday, 22 April in the North Salon of the Ramada Renaissance Techworld Hotel following Session I1. The current agenda includes:

- A. Fellowship Awards
- B. 1992 Dissertation Award Presentation
- C. 1992 Bonner Prize Congratulations
- D. New Officers of the DNP
- E. Invited Sessions for the DNP Fall Meeting in Santa Fe.
- F. New DNP Bylaws
- G. Budget Updates and Other Matters; Reports and Discussions with DOE and NSF Representatives.

8. DNP FALL MEETING AT SANTA FE, NM, 14-17 OCTOBER 1992

The Annual Fall Meeting of the Division of Nuclear Physics will be held on

14-17 October 1992 in Santa Fe, New Mexico. The host for the meeting and its associated workshops will be Los Alamos National Laboratory. All sessions of the Meeting and the Workshops will be held in Sweeney Convention Center, 201 West Marcy Street, which is within walking distance of the historic Santa Fe Plaza.

Santa Fe is an appropriate meeting place in the year of the quincentennial celebration of the historic voyage of Christopher Columbus. Santa Fe and its surrounding countryside are inhabited by descendants of the indigenous people living on this continent before Columbus' arrival, the Spanish colonialists that followed Columbus and more recent settlers. This diversity has helped to make Santa Fe, the oldest capital city in the United States, a cultural center of the Southwest. It is a pleasure to wander its narrow streets amid the historic adobe buildings containing galleries, shops, restaurants, and five museums. Santa Fe is nestled in the foothills of the scenic Sangre de Cristo Mountain Range and has fifteen state and national forests, parks, campgrounds, and monuments within a sixty mile radius, and numerous Indian pueblos in its vicinity. The Santa Fe Institute, a multidisciplinary research institution studying complexity in physical, biological, and social systems is located in Santa Fe. Los Alamos National Laboratory is forty miles to the northwest, and the University of New Mexico and Sandia National Laboratory are in Albuquerque, sixty miles to the southwest.

Divisional Meeting 15-17 October 1992

The main divisional meeting, held Thursday through Saturday, will consist of a plenary session, five sessions of invited papers, and approximately 18 sessions of contributed papers. There will also be a business meeting of the Division, meetings of users groups of various laboratories, and a reception hosted by the APS Committee on the Status of Women in Physics.

Overhead projectors will be provided for all sessions, with slide projectors also available for invited talks on request. A welcoming reception is planned for

Wednesday evening, 14 October, and a banquet will be held Friday evening, 16 October, both in the Eldorado Hotel which is convenient to both the Sweeney Center and the Santa Fe Plaza (see map accompanying this newsletter).

Preconference Workshops

Two workshops will be held in parallel on Wednesday, October 14, prior to the main meeting. The topics are "*New Vistas in Physics with High-Energy Pion Beams*", organized by C. B. Dover, B. F. Gibson, J. B. McClelland, and S. J. Seestrom "*Neutrons-Their Use for Nuclear Physics and Fundamental Symmetry Tests*", organized by A. Gavron, P.W. Lisowski, J. R. Nix, and J. F. Wilkerson. The programs for these workshops will include a review of current areas of activity for a general nuclear physics audience, including students, and will not be solely for specialists.

The workshop on high energy pions will provide an overview of the physics opportunities provided by high-quality, intense pion beams with energies up to about 1 GeV. Possible topics will include hypernuclear studies with energetic pion beams, hyperon-nucleon scattering, high-energy pion-nucleus reactions such as double charge exchange, baryon resonances in the pion-nucleon system, and decays of the pi and eta mesons. The present status of high energy pion beamlines and instrumentation as well as new directions in the field will be discussed.

The purposes of the workshop on neutrons are to summarize recent accomplishments with neutron beams and to discuss possible upgrades of neutron sources necessary to perform the next generation of exciting experiments. Neutron reaction studies include such diverse subjects as quantum chaos in compound-nuclear structure, giant resonances in (n,p) reactions, and neutron-proton bremsstrahlung. Fundamental symmetry studies involve measurements of neutron beta decay, the neutron electric dipole moment, and parity and time reversal violation in nuclei.

Companion's Program

A Companion's Program is being organized by Recursos de Santa Fe, a non-profit educational organization with particular emphasis on the arts, literature, culture, geography, and natural history of the Southwest. Details will follow in subsequent announcements.

Registration and Meals

Preregistration fees for the three-day main meeting are \$80 for APS members, \$150 for nonmembers, and \$10 for retired and student members. After 14 September 1992, the respective fees will be \$100, \$170, and \$15, as indicated on the registration form included with this newsletter. Registration fees for the workshops are \$20, increasing to \$25 after 14 September 1992, with fees being waived for students. Make your check payable, in U. S. dollars, to APS/DNP. Allow one week for your return confirmation. No credit cards will be accepted.

Written cancellations by preregistrants postmarked prior to 14 September 1992 will be refunded. No refund will be allowed for withdrawal postmarked after 14 September 1992.

The Fall Banquet will be in the Eldorado Hotel on 16 October 1992. The banquet is optional and costs an extra \$30. The banquet at the 1988 Fall Meeting in Santa Fe was a great success with a very enlightening and entertaining talk on Chaco Canyon. We shall try to live up to that standard.

Coffee and rolls will be available each morning. Most of the hotels have restaurants and there are a great variety of restaurants in the vicinity of Sweeney Center. A comprehensive restaurant guide will be provided at registration.

Lodging

The Fall Meeting will use eight hotels with varying rates and services. All hotel

rooms should be reserved via the hotel form included with this newsletter by 21 August 1992 through the Sweeney Convention Center Housing Bureau. For each room reserved through the Bureau, the Sweeney Center will deduct one dollar per night from the rent that the Division of Nuclear Physics pays for the use of the Center for the meeting and workshops. After August 21, 1992 the hotels must be contacted directly. The Housing Bureau will accept checks in U.S. dollars and credit cards.

Since Santa Fe is a popular resort city, it is recommended that hotel reservations be made early. The hotel prices listed are special reduced conference rates and will also be valid for the evening of Oct. 13 for those attending one of the workshops on October 14 at Sweeney Center. The Reception and the Banquet will be in the Eldorado Hotel, which is the most convenient hotel to Sweeney Center. The Picacho Plaza Hotel (formerly the Sheraton Hotel) has a shuttle to Sweeney Center. All other Hotels are within walking distance of the Sweeney Center with the Budget Inn being the longest walk (15 min.). If you drive to Sweeney Center, be prepared to pay a parking fee. The map shows the location of the hotels with respect to Sweeney Center. All Hotels have parking. If your first choice for a hotel is full, a reservation will be made where space is available in the order specified on the form.

Travel

Albuquerque International Airport is sixty miles southwest of Santa Fe (about 70 minutes on Interstate 25) and is serviced by most of the major domestic airlines. There is convenient and frequent bus transportation from the airport to the hotels at the cost of \$20 each way. The major car rental companies have offices at the airport.

Abstracts for Contributed Papers

In order to provide sufficient time for printing abstracts in the Bulletin the deadline for contributed abstracts is 19 June 1992. Abstracts should conform to the format specified in the APS News and

should 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-297, Livermore, CA 94550. For express mail services such as Federal Express or Emery, use 7000 East Avenue in the address in place of Box 808. Please do NOT send abstracts to the APS Headquarters. 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 J. N. Bradbury, G. T. Garvey, J. N. Ginocchio (Chair), J. B. McClelland, R. B. Perkins, R. G. H. Robertson, and D. Strottman.

For further information concerning registration contact the Local Conference Coordinator:

*Los Alamos National Laboratory
Protocol Office, MS P366
Attn: Millie Saxman, APS/DNP Local
Conference Coordinator
Los Alamos, N. M. 87545*

PHONE: 505 - 667 - 6574 ; FAX: 505 - 667 - 7558

For more information concerning hotels contact:

*Santa Fe Visitors and Convention Bureau
Attn: Roxanne Smyth
P.O. Box 909
Santa Fe, NM 87504
PHONE: 1 - 800 - 777- 2489; FAX: 505 - 984 - 6679.*

For additional information concerning the companion's program contact :

*Frances White
Recursos de Santa Fe
913 Calle Vistoso, Santa Fe, N.M. 87501
Phone: 505 - 988 - 7481*

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 Mrs. Maximilla Cassell (The American Physical Society, 335 East 45th Street, New York, NY 10017). Completed forms should be returned to Dr. N. R. Werthamer at the same address.

The 1992 DNP Fellowship Committee is comprised of J. B. Ball, (Chair), E. G. Adelberger, F. E. Bertrand, Jr. and E. J. Moniz. 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 over several years, and 2) have done at least one major, original work that has influenced his/her speciality in a significant 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 and the awards are presented at the DNP Business meeting of the Spring APS meeting.

10. BUDGET REPORT FROM THE NUCLEAR SCIENCE COMMITTEE, G. M. CRAWLEY

NSF Budget FY92 (present year):

The NSF budget for the current year is now allocated. A few highlights are given in the table below (in Millions of \$). Note: MPS stands for Math and Physical Sciences Directorate.

	FY91	FY92	% Inc
NSF:	2316.0	2573.5	11.1
Education	322.4	465.0	44.3
MPS:	558.3	623.1	11.6
Physics	120.0	137.1	6.2
Nuclear Sci	42.1	43.5	3.3

NSF Budget – FY93 (next year):

The request in the President's budget for FY93 calls for a 17.6% increase for NSF with about a 16.5% increase for MPS. Unfortunately the NSF budget is almost always reduced in Congress.

DOE Budget

The latest information on the DOE Nuclear Science budgets for FY92 and FY93 are given in the following table.

The table gives numbers in Millions of \$.

Program Element	FY92	FY93
University Programs:	52	58
Lab. Research	49	47
Facility Op.:	70	64
Plant & Equip	38	39
CEBAF Operating	23	28
CEBAF Const.	48	33
BNL Oper.	25	23
RHIC Const.	49	71
Total	354	363

11. NUCLEAR SCIENCE ADVISORY COMMITTEE (NSAC) REPORT, G.M. CRAWLEY

The first (organizational) meeting of the *Subcommittee on the Implementation of the Long Range Plan* was held on Saturday, January 25, 1992 in Washington, D.C. The formal charge to the Subcommittee and the latest charge to NSAC from Drs. Happer (DOE) and Sanchez (NSF) was contained in the letter from Peter Paul to John Schiffer and states:

"NSAC has been charged by the funding agencies for nuclear science, DOE and NSF, to evaluate the impact on the national nuclear science program of three funding scenarios for the next five years beginning with in FY93.

These scenarios begin with the Presidents budget request for FY93 and extrapolate to 1997 (1) flat in as-spent dollars, (2) flat in inflation corrected dollars, or (3) allow for a modest 2 % to 3 % real growth. The charge to NSAC contains two additional requests, on the balance between research on one hand and construction and/or operation of facilities on the other, and on possible DOE contributions to the KAON project."

In response to this charge NSAC has established the *Subcommittee on Implementation of the LRP for Nuclear Science*, comprised of J. Schiffer (Argonne National Laboratory and University of Chicago), chairman; R. Casten (Brookhaven National Laboratory); G. Crawley (Michigan State University, NSAC member); C. Dover (Brookhaven National Laboratory); R. McKeown (California Institute of Technology); E. Moniz (Massachusetts Institute of Technology, NSAC member); R. Tribble (Texas A&M University, NSAC member); G. Young (Oak Ridge National Laboratory); P. Paul (State University of New York at Stony Brook, NSAC chair) ex-officio.

The subcommittee is asked to identify the major scientific opportunities that will be gained and lost, and the impact on the education and training of scientists, across the entire field of nuclear science, under the three out-year budgets scenarios specified in the charge to NSAC. The 1989 LRP for Nuclear Science should provide a guide to the scientific perspectives of the field.

The report of the subcommittee should provide NSAC with recommendations on the implementation of the scientific priorities of the 1989 LRP, under the various budget scenarios for the years until 1997, as

well as recommendations on items (2) and (3) of the DOE/NSF charge to NSAC.

The Division of Nuclear Physics of the American Physical Society has offered NSAC its assistance in providing for input from the wider nuclear physics community. It is expected that the subcommittee, at its open meetings, will set aside time for comments by individual scientists, as well as for scheduled presentations.

In order to formulate a timely response to the agency charge, NSAC needs the subcommittee's report no later than April 6, 1992."

Both because of the extreme time pressure and because the Long Range Plan is less than two years old, the Subcommittee agreed that a detailed reexamination of all areas of Nuclear Science was not possible. However, the Subcommittee wishes to involve the Nuclear Science community as much as possible. If you would like to provide written input to the Subcommittee, please send your comments to John Schiffer (*schiffer@anlphy*).

At the January 25th meeting the Subcommittee agreed to hold 3 more meetings.

- A. February 17th, 18th at Argonne National Laboratory. This meeting will focus on the DOE portion of the charge. Oral presentations will be heard from LAMPF, CEBAF, RHIC, KAON and Bates. Written input is also being requested from many other DOE labs and groups.
- B. The second meeting will be held on March 6th, 7th, 1992 in Washington, D.C. This meeting will focus on the NSF portion of the charge. Oral presentations will be heard from IUCF and MSU as well as summaries of the programs at the 7 University Labs supported by NSF and the user activities. Additional written information from NSF grantees will also be solicited.

- C. The third meeting of the Subcommittee is planned for March 23th, 24th with the site still to be determined. This meeting is intended to discuss a draft of the report. The final report is due to NSAC by April 6th and will be considered at a full NSAC meeting later in April. NSAC will also meet on February 7th, 1992 to provide further input to the Implementation Subcommittee.

12. FIFTH ANNUAL SUMMER SCHOOL IN NUCLEAR PHYSICS RESEARCH, P. J. SIEMENS

The Fifth Annual Summer School in Nuclear Physics Research will be held July 5-18, 1992 at Oregon State University in Corvallis. The school is intended for advanced graduate students and beginning postdocs. It will consist of several courses of introductory lectures presented by active researchers. Organized by Steve Vigdor of the University of Indiana, this year's program includes: Tom J. Bowles, Los Alamos: "*Neutrino masses and mixing*" Avram Gal, Racah Institute: "*Hypernuclear physics*" Robert McKeown, Caltech: "*Spin effects in electromagnetic Interactions*" Brian Serot, Indiana: "*Relativistic nuclear many-body theory*" Phil Siemens, Oregon State: "*Matter above a trillion Kelvin*". To maximize interactions among participants, students and lecturers will be housed and fed together in university facilities. Oregon State University is situated in the Willamette River valley on the eastern slope of the Coastal Range, in the heart of Oregon's wine country and an hour's drive from the beaches and cliffs of the Pacific coast. Excursions will be organized to these attractions as well as to the 3,000 m Cascades, the mountain range which forms the eastern slope of the Willamette Valley.

The school is supported by the National Science Foundation. Financial aid will be made available to students on a basis of need. Letters of application are encouraged from any interested Ph.D. candidates or beginning post-doctoral

researchers. Contact the chairman of the Steering Committee: Philip J. Siemens, OSU Physics Department, 301 Weniger Hall, Corvallis OR 97331-6507, phone (503) 737-1697, fax -1683, email nuschool@physics.orst.edu.

13. 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.

1992 Prices: In what follows the price for U.S.A. is before the slash; the price for "Other Countries, including Canada" follows the slash. Volumes 12-41 are \$55/\$60 retail and \$39/\$42 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. *Since 1 January 1991, all orders shipped to Canada require the addition of a 7% General Sales Tax.*

14. ISOTOPE SUPPLY NEWS, L. L. RIEDINGER

On February 20-21, a Workshop on Availability of Isotopically Enriched Materials will be held at the National Academy of Sciences in Washington. This workshop, which is an outgrowth of concerns expressed by several different communities about the current and future availability of stable isotopes and radioisotopes, is being organized under the auspices of the National Research Council's Committee on Nuclear and Radiochemistry

with the cooperation of the Institute of Medicine.

For this workshop, we have been asked to survey the physics research applications of isotopes and the effects of government policies on user activities. Input is being sought from users of enriched isotopes on both of the following items.

- a. The general research uses of enriched stable or radioactive isotopes. Dr. Richard Meyer of the Department of Energy conducted a survey a year or so ago about this issue. Attempts are being made to update that survey, to include research laboratories that did not respond originally and also new novel needs for enriched isotopes. Lee Riedinger is collecting data on this issue.
- b. Problems encountered during the past two years in obtaining these materials (including separated isotopes for purchase or loan) for research. Information is being collected on these problems and also on the general view in the community about the current stable isotopes distribution system, including costs, and any anticipated problems. Steve Yates is collecting comments on these issues.

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15. FUTURE CONFERENCES

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

"American Chemical Society National Meeting - Division of Nuclear Chemistry and Technology," to be held 5-10 April 1992 in San Francisco, CA. Symposia include "Production and Utilization of Radioactive Nuclear Beams," Applications of Rare Isotopes as Tracers in Accelerator Mass Spectrometry," "Chemical Pretreatment of Nuclear Wastes for Disposal," and "Radiation and Society: A Pedagogical Symposium." [For further information contact: S. W. Yates, Univ. of Kentucky, Lexington, KY 40506-0055; phone: (606) 257-7085, bitnet: *yates@ukcc*].

"1992 Benjamin Franklin Symposium in Celebration of the Discovery of the Neutrino," to be held April 29-May 1, 1992 at the Franklin Institute, Philadelphia, PA. [For further information contact R. Steinberg, Drexel University Department of Physics, Philadelphia, PA 19104. Fax: 215 895-1954; internet: *franklin@duphy4.drexel.edu*, or bitnet: *franklin@duphy1*]

"Fourth International Spring Seminar on Nuclear Physics: The Building Blocks of Nuclear Structure," to be held 18-22 May 1992 in Amalfi, Italy. [For further information contact: A. Covello, Dipartimento di Scienze Fisiche, Universita de Napoli "Federico II" Mostra d'Oltremare, Pad. 20, I-80125 Napoli, Italy, phone: 39 81 7253402, Fax 39 81 614508, Telex: 720320 INFNNA I, bitnet: *covello@na.infn.it*].

"International Conference on Nuclear Structure at High Angular Momentum," to be held May 18-21, 1992, in Ottawa. [For further information, contact June Elliott/Harlene Yeas, Chalk River Laboratories, Chalk River, Ontario, Canada, K0J 1J0. phone ^a(613) 584-3311; fax (613) 584-4024; Bitnet: *tascc@crl.aecl.ca* or Cheryl Johnson, Physics Department., ABB241,

McMaster University, Hamilton, Ontario, Canada L8S 4M1. phone (416) 525-9140; fax (416) 528-5030.]

"Workshop on Large Gamma-Ray Detector Arrays," to be held May 22-23, 1992 at Chalk River Laboratories. [For further information, contact June Elliott/Harlene Yeas, Chalk River Laboratories, Chalk River, Ontario, Canada, K0J 1J0. phone (613) 584-3311; fax (613) 584-4024; Bitnet: *tascc@crl.aelc.ca* or Cheryl Johnson, Physics Department., ABB241, McMaster University, Hamilton, Ontario, Canada L8S 4M1. phone (416) 525-9140; fax (416) 528-5030.]

"Baryons '92; International Conference on the Structure of Baryons and Related Mesons," to be held 1-4 June 1992 at Yale University, New Haven, CT. [For further information contact: Moshe Gai, Physics Dept., Yale University, 272 Whitney Ave., New Haven, CT 06511, phone: (203) 432-5195, fax: (203) 432-3522, bitnet: *gai@yalevm*].

"5th Annual Summer School in Nuclear Physics Research," to be held July 5-18, 1992 in Corvallis, Oregon, USA. S. Vigdor, Organizer. [For further information contact Philip J. Siemens, OSU Physics Department, 301 Weniger Hall, Corvallis, OR 97331-6507, phone (503) 737-1697; fax-1683, email *siemens@physics.orst.edu*.]

"Cyclotrons '92, the 13th International Conference on Cyclotrons and their Applications," will be held in Vancouver, Canada, from 6-10 July 1992, sponsored by IUPAP and hosted by TRIUMF. [For further information please contact Maureen Iqbal, Cyclotrons '92, TRIUMF, 4004 Westbrook Mall, Vancouver, B.C., Canada, V6T 2A3 fax (604) 222-1074; bitnet: *cyc92@triumfcl*; internet: *cyc92@erich.truimf.ca*; hepnet: 45387::cyc92 or *erich::cyc92*]

"6th International Conference on Nuclei far from Stability" and "9th International Conference on Atomic Masses and Fundamental Constants," to be held 19-

24 July 1992, at the Mosel-Hotelpark, Bernkastel-Kues, Germany. [For further information contact: NFFS_AMCO, K. Wendt, Institut für Physik, Postfach 3980, D-6500 Mainz 1, F.R.G., phone: 0049-6131-39-3628 or 2882, fax: 0049-6131-39-2991, e-mail: *nffs_amco@vipmza.physik.uni-mainz.de*].

"1992 International Nuclear Physics Conference," to be held July 26 to August 1, 1992 in Wiesbaden, Germany. [For further information contact: Prof. Rudolf Bock, International Nuclear Physics Conference, GSI, P.O. Box 110552, D-6100 Darmstadt 11, Germany, phone: 49 6151 359-888 and 359-889, fax: 49 6151 359-989, telnet: 04-19593, bitnet: *inpc@ddags13*].

"Gordon Research Conference on Photonnuclear Reactions," to be held August 10-14, 1992 at the Tilton School, Tilton, New Hampshire. [For further information contact D. M. Skopik, Saskatchewan Accelerator Laboratory, University of Saskatchewan, Saskatoon, Saskatchewan S7N 0W0, phone (306) 966-6054, fax (306) 966-6058.]

"American Chemical Society National Meeting--Division of Nuclear Chemistry and Technology," to be held 23-28 August 1992 in Washington, DC. Symposia include "Nuclear Shapes," "Radiochemistry and Safety Aspects of the Next Generation of Nuclear Power Plants," "Radionuclide Generator Systems for Nuclear Medicine Applications," and "Pre-College Education in Nuclear Science." Abstract deadline is April 24. [For further information contact: S. W. Yates, University of Kentucky, Lexington, KY 40506-0055; phone: (606)257-7085, bitnet: *yates@ukcc*]

"Twelfth International Conference on the Application of Accelerators in Research and Industry," to be held 2-5 November 1992, at the University of North Texas, Denton Texas. [For further information contact: J. L. Duggan, Univ. of North Texas, Dept. of Physics, P.O. Box 5368, Denton,

Texas 76203, phone: (817) 565-3252 or 3250,
fax: (817) 565-2227, bitnet: *fc66@untvax*].

*"8th International Symposium, on
Capture Gamma-Ray Spectroscopy and
Related Topics,"* to be held 20-24 September
1993, in Fribourg, Switzerland. [For further
information contact: J. Kern, Physics
Department University, CH-1700 Fribourg,
Switzerland, phone: (41) (37) 826233, fax:
(41) (37) 826519, bitnet: *kern@cfruni52*].

APS MEETING -- WASHINGTON DC

20-24 April 1992

SYMPOSIA OF THE DNP

(Ramada Renaissance Techworld Hotel)

- 8:00 Monday, North Salon (DNP). **A1.**
**CHIRAL SYMMETRY AND CHIRAL
DYNAMICS**,
A. Bernstein, presiding.
B. R. Holstein (Univ. of Massachusetts),
"Low Energy Tests of Chiral Symmetry".
M. Seviar (Univ. of British Columbia), *" π - π
Scattering Lengths from Threshold $\pi\pi$ \rightarrow πN
Experiments and Chiral Symmetry"*
J. Verbaarschot (SUNY at Stony Brook),
*"Chiral Symmetry Breaking and
Instantons"*.
J. L. Goity (CEBAF), *"Hadrons at Finite
Temperature: An Approach to the Final
State in Heavy Ion Collisions"*.
J. Barrette (McGill Univ.), *"Particle Spectra
from Hot and Dense Nuclear Matter"*.
- 11:00 Monday, North Salon (DNP) **B1. THE
ROLE OF NEUTRON-PROTON
DEGREES OF FREEDOM IN
NUCLEAR COLLECTIVE MOTION**, J.
Cizewski, presiding.
R. Casten(BNL), *"The Residual p-n Interaction
and Collectivity in Nuclei"*.
A. Leviatan (Hebrew Univ.), *"Proton-
Neutron Symmetry of Collective States in
Nuclei"*.
C. Wesselborg (J.-L. Univ. Giessen),
*"Nuclear Structure Information from M1
and E1 Groundstate Transitions Studied by
Phot scattering"*.
S. J. Freeman (Yale Univ.), *"The Microscopic
Structure of the Isovector M1 Mode in Rare-
Earth Nuclei"*.
- 14:30 Monday, North Salon (DNP). **C1:**
**NUCLEAR STRUCTURE AND
REACTIONS**, L. Zamick, presiding.
B. Bush (LANL), *"Shape Fluctuations and
Shape Dynamics in Highly Excited Rotating
Nuclei"*.
E. J. Stephenson (Indiana Univ.), *"Medium
Modification of the Effective Nucleon-
Nucleon Interaction"*.

- C. Baktash, (ORNL), "Identical Moments of Inertia in Neighboring Odd-A and Even-Even Nuclei: A Crisis in Nuclear Pair Correlations".
- I. Sakrejda (LBL), "CERN Experiment NA36 - An Example of the Search for the Quark-Gluon Plasma in Relativistic Heavy-Ion Collisions".

8:00 Tuesday, West Salon (DBP/DNP). **E4. ACCELERATORS FOR NUCLEAR PHYSICS**, P. Paul, presiding.

- C. Leeman (CEBAF), "CEBAF".
- M. Harrison (BNL), "The RHIC Project".
- R. M. Bock (GSI), "The European Heavy-Ion Accelerator Program".
- E. W. Blackmore (TRIUMF), "The TRIUMF KAON Factory".
- S. Kowalski (Bates), "MIT Bates Upgrade".
- P. D. Barnes (LANL), "Upgrades at the LAMPF Research Facility".

11:00 Tuesday, Central Salon (DNP/DPF). **F2. NEUTRINO MASSES**, F. Reines, presiding.

- W. Stoeffl (LLNL), "Measurements of the Tritium Endpoint Beta Spectrum".
- F. P. Calaprice (Princeton Univ.), "A Magnetic Spectrometer Search for a 17 keV Neutrino".
- D. Caldwell (Univ. of California-Santa Barbara), "Search for a 17-keV Neutrino".
- M. Moe (Univ. of Calif.-Irvine), "The Spectrum of Electrons from Double Beta Decay".

14:30 Tuesday, North Salon (DAMOP/DNP). **G1. AT THE ATOMIC/NUCLEAR INTERFACE**, R. Deslattes, presiding.

- J. P. Schiffer (ANL), "Interfaces of Atomic and Nuclear Physics".
- B. Muller (Duke Univ.), "The 'Atomic Clock' for Nuclear Reactions: How Well Does It Work?".
- P. Indelicato (LPAN), "The High-Z Atomic X-ray Puzzle".
- E. G. Kessler, Jr. (Nat'l Inst. Standards & Technology), "Measurements of Femtosecond Nuclear Lifetimes by the Gamma-Ray Induced Doppler Method".

8:00 Wednesday, North Salon (DNP). **I1. ADVANCES IN EXPERIMENTAL TECHNIQUES**, G. Crawley, presiding.

- J.A.R. Griffith (Univ. Birmingham), "Laser Spectroscopy of Radioactive Isotopes Far from Stability".
- J. Koster (Univ. N. Carolina), "Test of Time Reversal Invariance in 2-MeV Neutron Transmission".
- R. E. Pollock (Indiana Univ.), "Beam Processing".
- H. G. Blosser (Michigan State Univ.), "Superconducting Cyclotron".

11:00 Wednesday, North Salon, **DNP BUSINESS MEETING**

8:00 Thursday, North Salon (FBTG/DNP). **M1. FEW-NUCLEON PHYSICS**, B. Berman, presiding.

- R. A. Miskimen (Univ. of Massachusetts), "Measurements of Deuteron Threshold Electrodissintegration: A Probe of Short-Range Meson Exchange".
- I. R. Afnan (Flinders Univ.), "The NN-NN Equations: A Unified Approach to Pion Scattering and Absorption".
- D. M. Skopik (Univ. Saskatchewan), "A Search for Three-Body Force Effects in the Reaction $3\text{He}(\gamma, pp)n$ ".
- A. C. Fonseca (Centro de Fisica Nucl.), "Faddeev Calculation of Polarization Observables in $1\text{H}(d, \gamma) 3\text{He}$ ".

11:00 Thursday, North Salon (DNP/DAP). **N1. STELLAR NEUTRINOS**, J. Bahcall, presiding.

- T. Bowles (LANL), "Where Have All the Neutrinos Gone? Status of Present Solar Neutrino Experiments".
- E. W. Beier (Univ. Pennsylvania), "Future Experiments for the Detection of Solar Neutrinos".
- S. Turck-Chieze (CEN-Saclay), "The Standard Solar Model".
- G. Raffelt (Max Planck Inst. fur Astrophy.), "Stars as Laboratories for Neutrino Physics".

8:00 Friday, Central Salon (DNP). **O2. WEAK INTERACTIONS IN NUCLEI**, R. Tribble, presiding.

- J. Deutsch (Univ. Catholique de Louvain),
*"Recent Results on Possible New
Interactions in Nuclear Beta Decay"*.
- F. Avignone (Univ. S. Carolina), *"Double-
Beta Decay of ^{76}Ge "*.
- T. Bernatowicz (Washington Univ.),
*"Geochemical Determination of the Double
Beta Decay Rates of ^{130}Te , ^{128}Te "*.
- S. Pollock (Univ. Washington), *"Atomic
Parity Nonconservation: Electroweak
Parameters and Nuclear Structure"*.