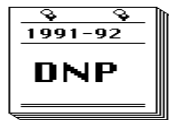




TO: Members of the Division of Nuclear Physics, APS
FROM: Virginia R. Brown, LLNL - Secretary-Treasurer, DNP

ACCOMPANYING THIS NEWSLETTER :

- A ballot and brief biographies of DNP Candidates



FUTURE DEADLINES

- **13 Dec 1991** - Invited Abstracts to Wick Haxton
- **10 Jan. 1992** - Last Day for Abstracts to N.Y. APS Office for Spring Mtg. (See Item 3.)
- **17 Jan. 1992** - DNP Election Ballot
- **1 Apr. 1992** - Fellowship Nominations (See Item 6.)

1. RESULT OF SPECIAL ELECTION FOR ADDITIONAL COUNCILLOR AND ELECTION OF OFFICERS AND EXECUTIVE COMMITTEE FOR 1992

By the deadline date of 12 July 1991, 465 properly identified ballots were received for the 'special election' of a second Division Councillor. Steven E. Koonin was elected Division Councillor, for a four year term beginning January 1992. The counting of the ballots was supervised by Luisa F. Hansen, Mohammed G. Mustafa, and Betty Voelker, all of LLNL.

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., 20-23 April 1992. Wick C. Haxton will become Chair and Richard F. Casten, Stuart J. Freedman, and Leo L. Riedinger, Jr. will remain

members of the Executive Committee. A Vice-Chair, Secretary-Treasurer, and three members of the Executive Committee are to be elected before April 1992.

This year's Nominating Committee consists of R. G. Stokstad (Chairperson), G. T. Garvey, G. R. Young, and J. L. Matthews. The candidates selected by the Nominating Committee are as follows:

Vice-Chairperson, (one position)

Noemie Benczer-Koller, Rutgers University
Robert E. Tribble, Texas A&M University

Secretary-Treasurer

Virginia R. Brown, LLNL

Executive Committee (three positions)

Robert D. McKeown, Caltech
Joseph I. Kapusta, University of Minnesota
Walter Henning, ANL
Robert J. Perry, Ohio State University
Lawrence S. Cardman, University of Illinois
John B. McClelland, LANL

The enclosed 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 **17 January 1992**, in order to be counted.

If you are a DNP member, please exercise your right to vote for candidates in the upcoming DNP elections. Typically only about 900 election ballots are mailed in by members. **Your vote counts, and it is important!**

2. REPORT ON THE DNP FALL MEETING AT
MICHIGAN STATE UNIVERSITY, EAST
LANSING, MICHIGAN, 23-27 OCTOBER 1991

A well attended and highly successful DNP meeting was held at Michigan State University at East Lansing. The registered attendance was somewhat more than 500, which makes it one of the three best attended DNP meetings in recent years. On behalf of the membership, the Executive Committee is pleased to acknowledge the hard work, coupled with the organized and careful planning of the Local Committee consisting of Sam Austin, Walter Benenson, George Bertsch, and Gary Crawley, with special thanks to Jerry Nolen (Chair) for his very important contributions to the success of this meeting. The DNP is also grateful for the valuable contributions from the Local Conference Coordinator, Mrs. Shari Conroy.

The meeting consisted of six sessions of invited papers, one of which was a plenary session, described below, and 232 contributed papers divided into 22 sessions, plus one postdeadline session not listed in the September Bulletin. The opening invited session "A Massive Neutrino in Nuclear Beta Decay?" on Thursday morning was filled to capacity (312 seats) with people standing outside the Auditorium doors. The other invited sessions "Phase Transitions in Nuclear Reactions", "Recent Polarization Experiments", "Nucleon and Nuclear Structure", and "Nuclear Astrophysics" were all well attended as were the various contributed sessions. In fact, many of the contributed sessions were standing room only. Among the other well attended highlights was the Thursday afternoon Plenary Session, which focused on "Nuclear Physics at the Interfaces."

Plenary Session, G. M. Crawley

As has been the case for the past two meetings, the plenary session at the East Lansing meeting concentrated on science.

In this case the title was "*Nuclear Physics at the Interfaces*" and the talks focussed on areas where nuclear physics has played and continues to play a role at the interface with a neighbouring field. In spite of the delightful weather, the session was full to overflowing with over 550 people seated in the Big Ten room of the Kellogg Center.

The first talk by Professor Trevor Weeks of the Harvard-Smithsonian Center for Astrophysics was a scintillating exposition of the status of high energy gamma ray astronomy with particular emphasis on controversial results at very high energy. This was followed by a brilliant *tour de force* from Professor David Schramm who reviewed the field of nuclear astrophysics, including evidence for non-baryonic dark matter and neutrino oscillations. He also emphasized the important contributions nuclear physics had made to these and other cosmological questions. Finally, Dr. Luther Williams, Assistant Director for the Education and Human Resource Directorate at the National Science Foundation gave a useful summary of the status and plans for initiatives in science education and the role academic and industrial scientists might play in such programs.

Workshops

The workshops "Physics with Radioactive Ion Beams" and "Intensity Interferometry in Subatomic Physics" were held on Wednesday 23 October. The third workshop "Nonlinear Dynamics in Nuclear and Accelerator Physics" was held on Sunday 27 October. Highlights of these workshops are described below.

"Physics with Radioactive Ion Beams"

The attendance at Workshop A, "Physics with Radioactive Ion Beams", was very high with approximately 120

participants, far larger than any other Fall DNP meeting workshop. This is an indication of the current great interest in the use of radioactive nuclear beams for nuclear physics research. There was also much discussion and many questions after each talk.

The workshop was divided into two parts. The morning session concentrated in general terms on the science which can be explored with radioactive beams: nuclear structure, astrophysics, nuclear reactions, the structure of dripline nuclei, and studies of fundamental interactions in nuclei using nuclei far from stability. Ideas were presented on new types of experiments made possible with radioactive beams. At the end of the morning session ideas for new facilities for producing radioactive beams were discussed. The afternoon session covered current experiments with radioactive beams at the GSI Fragment Separator, the LISE separator at GANIL, the RIPS separator at RIKEN, the Univ. of Michigan-Notre Dame solenoid, and the MSU fragment separator, mostly using the projectile fragmentation technique for producing beams. Many interesting experiments are now underway, including studies of nuclei on the proton and neutron driplines.

"Intensity Interferometry in Subatomic Physics"

This workshop brought together about 50 experimentalists and theorists interested in studying highly excited nuclei and hadronic matter by the final state particle correlations. The systems under study range from compound nuclei to the hadronic matter formed in ultrarelativistic collisions.

The results reported for the low energy domain were very encouraging, in

that the observed correlations behaved as expected theoretically. In particular, Coulomb-induced correlations show the change of emission time of particles from compound systems, ranging from about 10 fm/c for the most energetic particles to hundreds of fm/c for the slower particles emitted from the cooled system. The Boltzmann equation was seen to be very useful to interpret the proton correlation data at intermediate energy. Here effects of the finite lifetime are also evident in the measured correlations.

At the highest energies, the $\pi\pi$ correlations in heavy ion collisions as compared to hadronic collisions show clearly the effect of the extended source in heavy ion systems. Unfortunately, quantitative interpretation of the correlations is still problematic because the correlation at very small relative momenta is not well described by current theory.

"Nonlinear Dynamics in Nuclear and Accelerator Physics"

The workshop on nonlinear dynamics in nuclear and accelerator physics featured an audience of about 60 with both fields represented about equally. The introductory talk by M. Baranger prepared the ground with a colorful introduction to the field of nonlinear dynamics and was followed by three summary talks ranging from the manifestation of "quantum chaos" in nuclear level distributions (D.H. Feng) to the question of the long term behavior of particle motion in the Superconducting Supercollider (A. Dragt, L. Michelotti).

In addition to several interactions at the purely theoretical level between the two groups, the experimentalists from both sides were stimulated by the data and ideas presented by Gary Mitchell and David Caussyn. Ideas for future experiments and the need for data in both nuclear and

accelerator dynamics were clear in both talks. Applications were as diverse as determining the degree of isospin mixing in sd-shell nuclei to the dynamic aperture of the SSC. Possibilities for cross-fertilization were shown to exist in the application of differential algebra and finite temperature simulation methods to problems in nuclear and accelerator physics.

Town Meeting, G. M. Crawley

The "Town Meeting" was held on Friday afternoon, 25 October at 16:00 in the Auditorium of the Kellogg Center. In opening the meeting, the Chair, Gerard Crawley, noted the recent concern over the possible decrease in Nuclear Science budgets at DOE in FY93. He speculated that the standing room only crowd at the town meeting was indicative of this concern.

The agenda included the following reports and then the meeting was opened up to a "town meeting" style forum to discuss the proposed DNP response to the budget situation.

The Chair of the Program Committee, Wick Haxton, presented a report of the Program Committee's deliberations on invited sessions for the Washington APS meeting in Spring 1992 (See Item 3). Haxton also encouraged members of the DNP to nominate invited speakers for the two voted sessions at the Washington meeting.

Next, Jim Ball reviewed the status of the new bylaws for the Division (See Item 9). A draft of the new DNP bylaws has been approved by the Executive Committee and will be presented to the APS Council shortly.

Jack Lightbody presented a brief summary of the NSF budget situation. NSF does not yet have a FY92 budget for Physics. They are operating under a continuing resolution, but the House and

Senate Conference Committee has agreed on a total NSF budget increase of about 11%, down from the 14% requested. As Dave Hendrie had to return to Washington, Gerard Crawley presented a brief summary of the FY92 DOE budget but warned that the situation in FY93 was much less promising. Further discussion was delayed until after the NSAC report.

Peter Paul, NSAC Chair, outlined the recent charge from DOE and NSF to NSAC (See Item 10). NSAC plans to respond shortly to the immediate question related to the FY93 budget but will take up the longer term components of the charge early in 1992 to allow more time for input.

Finally, Gary Crawley outlined the proposed DNP response to the DOE budget situation and called for comments. The DNP Executive Committee is drafting a letter to Dr. Bromley, the Presidential Science Advisor, requesting his assistance in dealing with this potentially catastrophic problem for nuclear science. Copies of the letter will also be sent to Dr. Happer at DOE and Dr. Sanchez at NSF who signed the NSAC charge. Copies of this letter will be distributed by e-mail on DNP NEWSNET once the letter has been sent. Crawley also said that he plans to write to the Chair of NSAC to formally request that DNP be involved in providing input on the longer term issues of the NSAC charge in a similar fashion to DNP's involvement with the recent Long Range Plan.

During the public discussion, the question was addressed whether the funding for the SSC was responsible for the cut in Nuclear Science at DOE and if so whether this issue should be addressed head on in the letter to Dr. Bromley. Arguments were presented on both sides but the general sense of the meeting was that the DNP should not attack the SSC. Another major question was why Nuclear

Science had been singled out for this severe cut. Environmental concerns, cleanup and national energy strategies along with congressional caps were all cited as possible reasons. Nuclear Science total budgets have seen significant growth because of construction projects, both CEBAF and RHIC. However, no completely satisfactory answer was presented.

Reception and Banquet

On Friday evening the reception and banquet were attended by 260 people. The after dinner talk and video by Prof. William Cooper of the MSU Zoology Department was very entertaining and informative. Videos taken from a manned research submarine at the bottom of Lake Superior showed surprising and interesting results. He was introduced by David Scott, currently the Provost of MSU and previously Hanna Professor of Nuclear Physics at MSU, the master of ceremonies of the evening.

High School Teacher's Day at the Meeting, G. M. Crawley

A High School Teacher's day was held on Thursday, 24 Oct. in conjunction with the DNP meeting in East Lansing. The event was coordinated by Sheron Snyder, from Mason High School, Chair of the Michigan Section of the American Association of Physics Teachers (MAAPT). Local high school teachers were invited to attend the morning invited paper session on the "Possible Existence of a 17 keV Neutrino" as well as the afternoon plenary session.

In addition, about 30 people were present at a luncheon hosted by the APS, about a dozen high school teachers, the three plenary session speakers, Dr. Schramm, Dr. Weekes, and Dr. Williams and Dr. Kayser who spoke at the morning invited session. Representatives from the DNP and Michigan State University also attended the luncheon. This provided the

opportunity for informal exchange between high school teachers and the research community.

Finally, the MAAPT held a meeting on Saturday, 26 Oct., in East Lansing. This local group was able to take advantage of the presence of scientists from all over the country in East Lansing by having Dr. Wick Haxton present a talk on "Solar Neutrinos" on Saturday morning.

3. SPRING APS MEETING, WASHINGTON, D.C., 20-23 APRIL 1992

The Division of Nuclear Physics will organize five sessions of invited papers for the Spring meeting. Speakers for three of these sessions will be selected by vote of the Program Committee from nominations which were submitted to Wick C. Haxton by the 1 November deadline. Included in the voted sessions will be the Bonner Prize and Dissertation Award Winner invited talks.

Speakers for the other two sessions are being arranged by subcommittees on topics selected at the East Lansing Program Committee meeting. One session on "The Role of Neutron-Proton Degrees of Freedom in Nuclear Collective Motion" is being organized by Jolie A. Cizewski (Rutgers) and Joseph N. Ginocchio (LANL). A second session on "Chiral Symmetry and Dynamics" by Berndt Mueller (Duke).

In addition to the usual five invited sessions, the DNP Program Committee is participating in three or four cooperative or joint sessions with other APS subunits participating in the spring meeting. One session is joint with the Few Body Topical Group and is being organized by Ben Gibson (LAMPF) and Aron Bernstein (MIT). A joint session with the Division of Beam Physics on "Accelerators for Nuclear Physics" is being arranged by M. Craddock (TRIUMF). Other joint sessions are being planned with the Division of Astrophysics and the Division of Particles and Fields. Session topics under consideration include "Low Energy Neutrino Physics", "Hot QCD", and "Exotic States." The composition of these sessions is being explored by the DNP Program Chair, W. C. Haxton.

4. DNP FALL MEETING AT SANTE FE, NM, 14-17 OCTOBER 1992

The annual meeting of the Division of Nuclear Physics will be held on 15-17 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 will be held in Sweeney

Convention Center 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 colonists that followed Columbus, and the more recent settlers (everyone else). 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 sixty miles to the southwest in Albuquerque.

Two workshops will be held in parallel on October 14. One is on "Physics with High Energy Pions", organized by Carl Dover and John McClelland. The other topic will be announced in the near future.

A Companion's Program is being organized by Recursos de Santa Fe. Details will follow in subsequent announcements.

The local organizing committee consists of J. N. Bradbury, G. T. Garvey, J. N. Ginocchio (Chair), J. B. McClelland, R. B. Perkins, R. G. H. Robertson, and D. D. Strottman.

5. 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.

6. 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 Bernstein (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.

7. "PHYSICS NEWS IN 91", Wick C. Haxton

The DNP Physics News Committee (Wick Haxton (Chair), Art McDonald, Shoji Nagamiya, Bob Redwine, and Steve Vigdor) has completed work on this year's contribution. The subjects selected are the SAGE solar neutrino experiment, the IUCF/TRIUMF charge symmetry tests, the start of RHIC construction, the puzzling evidence for a 17 keV neutrino, and the

Bates/Novosibirsk measurements of T_{20} . Tom Bowles, Miklos Gyulassy, and Roy Holt helped with the writing. "Physics News" is widely distributed to Congressional staffers and others interested in science progress and policy. The APS is considering publishing "Physics News" in a form that could be distributed to the Society's membership.

8. NATIONAL INSTITUTE FOR NUCLEAR THEORY, W. C. Haxton

The Department of Energy and the University of Washington announced in October that Wick Haxton had been selected director of the INT by unanimous vote of the INT's National Advisory Committee (NAC). The term of the appointment is five years. Ernest Henley, who has led the INT since its inception, was asked by the new director to remain with the INT as associate director, and he has agreed.

The INT's fall 1991 (Mesons and Fields) and spring 1992 (Nuclear Tests of Symmetries) programs are oversubscribed and have been closed to late applicants. The summer 1992 (Strangeness) and fall 1992 (Microscopic Nuclear Structure Theory) programs are also close to capacity. Inquires about these programs should be sent to the organizers, Carl Dover and Ben Gibson (Strangeness) and Bruce Barrett and Jim Vary (Structure).

In the August meeting of the NAC three new programs were selected for 1993. Eugen Merzbacher, Jim Friar, and Berndt Mueller will organize the spring program on the Nuclear Physics of Atoms and Molecules. The summer program on Lattice QCD and Phenomenology will be organized by Steve Sharpe, Gregory Kilcup, and John Negele. Large Amplitude Collective Motion will be the theme of the fall program, organized by George Bertsch and Aurel Bulgac. Inquires should be directed to these organizers.

9. REVISION OF THE DNP CONSTITUTION AND BYLAWS, Jim B. Ball

A Committee consisting of J. B. Ball (Chair), V. R. Brown, G. M. Crawley, and W. C. Haxton was formed to frame the new DNP Constitution and Bylaws. The APS has a new Constitution and Bylaws and has required that the subunits revise their bylaws accordingly. To provide uniformity to its own bylaws, the APS prepared a set of model bylaws for the fictitious Division of Ballistic Physics.

Jim Ball presented the proposed new DNP Bylaws to the DNP membership at the "Town Meeting" at East Lansing from the perspective of how they deviate from the model bylaws. The main difference is that the DNP will attempt to keep its current executive committee timetable and structure. The model bylaws introduce an additional officer, a chair elect, which is added to vice

chair, chair, and past chair, and instead of three members of the executive committee being elected every year for two year terms, they provide for two members to be elected every three years. The model bylaws also stipulate that the office of secretary-treasurer be a three-year position. The DNP proposes to keep its current structure because it has worked so well and because it allows more frequent elections and therefore more membership involvement.

The plan of putting the new DNP Bylaws to a vote by the members present at the 1992 DNP Business Meeting scheduled for the Spring APS meeting in Washington has been superceded. The current DNP Bylaws stipulate that a change in bylaws requires that the Secretary-Treasurer distribute copies of the proposed changes to all members of the Division not less than three weeks before the Regular Meeting (Spring) in the February Newsletter and that opportunity shall be given for discussion during the Business Session of that meeting. Following that the members shall receive a mailed ballot (May Newsletter) which for ratification of the changes requires a 2/3 majority.

10. NUCLEAR SCIENCE ADVISORY COMMITTEE (NSAC) REPORT, G. M. Crawley

A long meeting of the Nuclear Science Advisory Committee (NSAC) was held in East Lansing on 23 Oct.. The meeting was closed to the public from 9:00 am till 3:00pm, the first time an NSAC meeting has been closed. This was followed by an open meeting from 4:00pm till 6:30pm. The announced reason for the closed meeting was to prevent premature disclosure of proposed agency actions which could cause serious disruptions in research activities and significantly frustrate orderly implementation of such actions.

The charge, which was announced at the open meeting, asked NSAC to give advice to the Department of Energy (DOE) under three budget scenarios.

- a) A decrease of 10% in FY93 followed by 4 years of level funding in as spent dollars.
- b) A decrease of 10% in FY93 followed by 4 years of level funding in constant dollars.
- c) A decrease of 10% in FY93 followed by 4 years of modest growth (e.g. 2 to 3 percent real growth).

In addition, NSAC was asked to give advice on what emphasis should be placed on DOE university-based research and research facilities under these budget scenarios and whether DOE should make a contribution to the KAON project.

The National Science Foundation also asked NSAC for advice on two budget scenarios viz.

- a) A level budget over the next 5 years in as spent dollars.
- b) A level budget over the next 5 years in constant (inflation corrected) dollars.

Dr. William Happer, the newly appointed Director of Energy Research at DOE attended the closed NSAC meeting.

As reported by Peter Paul, the Chair of NSAC, in the open meeting, NSAC will respond very shortly to the part of the charge related to the FY93 budget but will delay a response to the remainder of the charge including the NSF portion until early in 1992 to allow more input.

During the public comment part of the open meeting, questions were raised about why the Nuclear Physics budget was taking such a large hit and whether funding for the SSC was contributing to this funding problem. DOE staff responded that the reasons for the budget decreases were because of congressional budget caps and the need for DOE to address other priorities such as cleanup of nuclear waste, environmental concerns and other aspects of the national energy strategy.

Also during the open meeting, status reports were presented from the Subcommittee on Nuclear Data Needs and the Nuclear Theory Institute at the University of Washington in Seattle. Dr. Wick Haxton, the newly appointed Director of the Institute, painted an upbeat picture of the early operation of the Theory Institute. There was also discussion of the availability of separated stable isotope material. The situation here is much less rosy with costs rising and other problems. NSAC plans to take up this question again at a future meeting.

11. BUDGET REPORT FROM THE NUCLEAR SCIENCE RESOURCES COMMITTEE, L. L. Riedinger, Jr. Chair

The fiscal year 1992 appropriations bills pertaining to nuclear physics have been finalized. These bills cover the current fiscal year which began October 1, 1991. The Department of Energy budget for nuclear physics increases by 13% over the FY91 sum to a total of \$354.4 M, including construction funds of \$41.8 M for CEBAF and \$49.4 M for RHIC (the sum of which is up by almost \$20 M over FY91). The CEBAF construction is programmed to decline steadily in the remaining two years, while RHIC has been scheduled to increase within a few years to a peak of \$90 M.

The National Science Foundation is funded in FY92 for a total of \$2577 M, up by 11.3% over FY91. Included in this is \$1879 M for Research and Related Activities (up by 10.9%) and \$465 M for Education (up by 44%). The total NSF budget and the research component were each higher in both the House and Senate versions of the appropriations bills, but lost ground in the conference

committee. For nuclear physics, the requested increase for FY92 over FY91 was 9.7% to \$47.5 M, but the actual increase is likely to about half of this in view of reduction in the total NSF request.

The Department of Energy revealed to the Nuclear Science Advisory Committee (NSAC) its plans for a sudden 10% drop in the FY93 nuclear physics budget in a closed meeting on October 23, 1991. Of course, this decrease really means an effective 15% reduction in the program in view of inflation. In addition, earlier projections had indicated a further rise in FY93 of around \$6 M in the sum of CEBAF and RHIC construction funds, with also a necessary increase in operating for the former as construction nears completion. These trends all conspire to forecast a year of unprecedented budget tightening in the field of nuclear physics. The details of the FY93 request will not be known until the president submits his budget to the Congress in late January or early February.

The DNP Nuclear Science Resources Committee has resurrected the program of regular electronic mail messages to interested members. If you have not received such a budget update by e-mail recently but would like to in the future, please send a message to Gary Crawley at "crawley@msupa.bitnet".

12. FIFTH EDITION OF THE NUCLEAR PHYSICS DIRECTORY

The fourth edition of the "Directory of Nuclear Physics Laboratories" was sent to DNP members free of charge with the 1990 May newsletter. This Directory is a compilation of addresses, phone numbers, electronic-computer-mail addresses, telex numbers, and fax numbers. It is produced under the sponsorship of the DNP/APS by the National Superconducting Cyclotron Laboratory at Michigan State University under the coordination of Shari Conroy. It is printed by the National Nuclear Data Center at BNL.

In view of the fact that many members find the Directory useful and that e-mail and fax information change regularly, the DNP Executive Committee authorized the preparation of a fifth edition of the "Directory of Nuclear Physics Laboratories".

Update forms will be mailed to current listings by the National Superconducting Cyclotron Laboratory at Michigan State University. If you are not currently listed, please write to them for a form (Attn. S. Conroy, Cyclotron Laboratory, Michigan State University, East Lansing, MI 48824-1321 or via bitnet at "conroy@msunsl"). *We hope to list all institutions that have an active nuclear physics program involving several individuals.*

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.

1991 Prices: In what follows the price for U.S.A. and Canada is before the slash; the price for "Other Countries" follows the slash. Volume 40 was published in December 1990. Volume 40 is \$55/\$60 retail and \$39/\$42 for DNP members. Vols. 38-39 are \$51/\$56 retail and \$36/\$40 for DNP members. Vols. 12-37 are \$36/\$41 retail and \$26/\$29 for DNP members.

Beginning in **1992**, there will be a new price structure which represents an increase for back volumes. Volume 41 (**not available until after publication in Dec. 1991**) will not show an increase over the 1991 Vol. 40 price. Vols. 12-41 will be \$55/\$60 retail and \$39/\$42 for DNP members. Another change for **1992** is that all Canadian orders will be priced under "Other Countries" rather than the current pricing under "U.S. and Canada." This is in addition to the 1991 Canadian General Sales Tax (see below).

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.* 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.

14. FUTURE CONFERENCES

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

"A Workshop on the 17 keV Neutrino Question", to be held 18-20 December 1991 at The Center for Particle Astrophysics (CfPA) at the University of California, Berkeley, CA. [For further information contact: Dr. Timothy Edberg, Center for Particle Astrophysics, 301 LeConte Hall, University of California, Berkeley, Berkeley, CA 94720, phone: (415) 642-1067, fax: (415) 642-1756, Internet: "edberg@lbl.gov", bitnet: "edberg@lbl"].

"Eighth Winter Workshop on Nuclear Dynamics", January 18-25, 1992, to be held in Jackson Hole, Wyoming. [For further information contact: Wolfgang Bauer, NSCL/Cyclotron Laboratory, Michigan State Univ., E. Lansing, MI 48824, phone: (517) 353-5965, fax: (517) 353-5967, bitnet: "bauer@msunsl"].

"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"].

"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"].

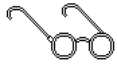
"Baryons '92; International Conference on the Structure of Baryons and Related Mesons", to be held 1-4 June 1992 at Yale University, New Haven, CT. [For further information contact: Moshe Gai, Physics Dept., Yale University, 272 Whitney Ave., New Haven, CT 06511, phone: (203) 432-5195, fax: (203) 432-3522,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

"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"].

"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"].



ANNOUNCEMENT

The Steering Committee of the Annual Nuclear Physics Summer School would like input from the community on future topics, sites, and potential chairpersons. Please communicate your suggestions to: Phil Siemens, Physics Dept., Oregon State University, 301 Weniger Hall, Corvallis, OR 97331-6507, phone (503) 737-1697, fax (503) 737-1683, e-mail: "siemens@physics.orst.edu."

1992 DNP BIOGRAPHIES

Vice-Chair

NOEMIE BENCZER-KOLLER -- Professor of Physics, Rutgers Univ. 1970-present, Associate Professor, 1965-70, Assistant Professor, 1960-65; Postdoctoral Fellow Columbia Univ. 1958-60; Acting Director Rutgers Nuclear Physics Lab., 1985, Director Rutgers Nuclear Physics Lab., 1986-89; Ph.D. Columbia Univ. 1958; M.A. Columbia Univ. 1955; B.A. Barnard College 1953; Visiting Professor, Weizmann Inst., Israel, 1975-76; Visiting Scientist, Argonne National Lab., 1989-90; Fellow, APS, AAAS; NSF: Physics Advisory Panel 1973-76, Physics Div. Committee of Visitors, 1991; APS: Committee on Women in Physics 1971-72, Councillor-at-large, 1979-82, Nominating Committee, 1986-88, Chairperson Nominating Committee, 1987, Apker Award Committee, Congressional Fellowship Selection Committee, 1988; APS-DNP: Executive Committee, 1983-84, 1990-91, Program Committee, 1975-76, 1988-89, Bonner Prize Committee, 1976, Fellowship Committee, 1989-90; Nuclear Physics Dissertation Award Committee, 1986-88; Editorial Board, Physical Review C, 1990-present; Editorial Board American Journal of Physics, 1972-75, 1980-83; Associate Editor, Hyperfine Interactions, 1982-present; National Research Council Panel on Basic Nuclear Data Compilations, 1981-83; Panel on Nuclear Physics, Physics Survey Committee, 1983; Current research interests: Nuclear structure, measurements of electromagnetic moments of nuclei far-from-stability or at high spin and temperature, ion-solid and surface interactions studied with nuclear probes and techniques.

ROBERT E. TRIBBLE - Professor of Physics, Texas A&M University (1982-present); Assoc. Professor, TAMU (1978-82); Asst. Professor, TAMU (1975-78); Instructor, Princeton University (1973-75); Ph.D in Physics, Princeton University, 1973. Head, Department of Physics, Texas A&M University (1979-87). Alfred P. Sloan Fellow (1976-80); Visiting Scientist, Max Plank Institute for Nuclear Physics, Heidelberg, Germany (1977-78); Visiting Associate Professor, Princeton University (1979); Associated Western Universities Sabbatical Fellowship at LAMPF and Lawrence Livermore National Laboratory (1987-88). LAMPF users group member and consultant

(1985-present). Panel on Future Directions in Nuclear Physics, Boulder (1979); Member of Committee for Status of Women in Physics Faculty Positions, American Physical Society (1980-83); chairman, Publications Committee, DNP (1983-84); chairman, Nominating Committee, DNP (1990-91); member, Nuclear Science Advisory Committee (1991-present). Fellow American Physical Society. Research Interests: Electroweak interactions and symmetries; nuclei far from stability; production and use of radioactive beams for nuclear astro-physics; nuclear reactions and scattering; inter-actions between slow, highly-charged heavy ions and surfaces.

Secretary-Treasurer

VIRGINIA R. BROWN - Senior Staff Scientist, Lawrence Livermore National Laboratory, 1964-present; B.S. Northeastern University 1957; Ph.D.. McGill University, 1964; Post Doctoral Research Appointment, Yale University, 1963-64; Post Doctoral Fellowship LLNL, 1965-1967; Guest Research Position, IKP Julich, West Germany, approximately two months per year, 1980-present; Adjunct Prof. University of California at Davis; Fellow APS; Executive Committee, Division of Nuclear Physics, 1980-82; Economic Concerns Committee, APS DNP 1973-77; Asilomar DNP Local Committee, 1989; DNP Bylaws Committee, 1991; Secretary-Treasurer, DNP 1986-present. Research-theoretical nuclear physics: Neutron and proton (isospin) nuclear structure contributions to various transitions; comparison to hadronic, weak and EM probes. Coupled-channels effects in inelastic scattering and charge exchange. The NN system in the presence of weak and electromagnetic fields.

Executive Committee

LAWRENCE S. CARDMAN - Professor of Physics, University of Illinois at Urbana-Champaign (1982-present); Associate Professor (1978-82); and Assistant Professor (1973-78). Visiting Scientist, CEBAF (1989-90) and C.E.N. Saclay, France (1980-81). Acting Instructor, Yale University (1971-72). Ph.D., Experimental Nuclear Physics, Yale University (1972), B.A., Yale University (1966). NAS-NRC Post-Doctoral, National Bureau of Standards (1972-73). Program Advisory Committees: IUCF (1991-present); MIT-Bates (1984-87). CEBAF National Advisory Board (1982-present). NSAC Subcommittees: Instrumentation (1979, 1982-83); Computers and Computing (1984-85). APS Division of Nuclear Physics Program Committee (1985-87). Chairman, Gordon Conf. on Photonuclear Reactions (1986). Co-principal investigator, Nuclear Physics Laboratory, University of Illinois at Urbana-Champaign (1981-90). CEBAF Hall C co-program manager (1988-present). Fellow, APS; Member, Sigma Xi. Research Interests: Experimental investigations of nuclear and nucleon structure, and of the electro-weak interaction; accelerator physics.

WALTER F. HENNING -- 1968-1973 Research Associate, Techn. Univ. Munich; 1973-1975 Visiting Scientist, Argonne National Laboratory; 1975-1976 Associate Professor, Techn. Univ. Munich; 1976-1980 Staff Physicist,

Argonne National Laboratory; 1980-1986 Senior Scientist, Argonne National Laboratory; 1983-1986 Professor, Enrico Fermi Inst. and Dept. of Physics, Univ. of Chicago; 1987-1990 Professor, Univ. of Mainz and Section Leader GSI; 1989-1990 Member of the Directorate of GSI; 1990/1991 Director Argonne Physics Division. Visiting Appointments: 1982(Spring) University of Jerusalem; 1982 Technical University of Munich. Committees etc.: 1976-1977 Program Committee Am. Phys. Society; 1977-1982 Progr. Adv. Comm., MP-Tandem Brookhaven; 1983-1986 Progr. Adv. Comm., SUPER-HILAC LBL Berkeley; 1984-1986 Progr. Adv. Comm., ATLAS Argonne; 1987-1991 Progr. Adv. Comm., BEVELAC LBL Berkeley; 1988-1991 Progr. Adv. Comm., VICKSI HMI Berlin; 1988-1991 Progr. Adv. Comm., XTU-Tandem Padova; 1989-1992 Progr. Adv. Comm., SATURNE Saclay; 1987-1989 Progr. Adv. Comm., UNILAC GSI Darmstadt; 1989-1991 Progr. Adv. Comm., SIS/ESR GSI Darmstadt; 1991-1994 Scientific Council, KVI Groningen. Other Professional Activities, Memberships etc.: 1987- Editor Zeitschrift fuer Physik; 1991- Associate Divisional Editor Phys. Rev. Letters; Member German Physical Society; Fellow American Physical Society. Research interests: nuclear structure; low energy heavy-ion reactions; meson and photon production in relativistic heavy-ion reactions; nuclear reactions with radioactive beams and astrophysics; accelerator mass spectrometry; cryogenic low-temperature detectors.

JOSEPH I. KAPUSTA - Professor of Physics, Univ. of Minnesota (1986-present); Associate Professor, UM (1985-86); Assistant Professor, UM (1982-85); Scientific Associate, CERN (1981-82); Research Associate, Los Alamos National Laboratory (1979-81); Research Associate, Lawrence Berkeley Laboratory (1978-79); Ph.D., UC-Berkeley, 1978. DOE Nuclear Theory Review Panel (1987), Bevalac PAC (1986-88), RHIC Preconstruction Advisory Panel (1988), Theoretical Physics Institute Search Committee (1987-89), Organizer of TPI Workshop on High Temperature QCD and Relativistic Many-Body Theory (1987), Co-organizer of the Fifth, Sixth and Seventh Winter Workshops on Nuclear Dynamics (1988, 1990, 1991), Co-organizer of the Pittsburgh Workshop on Soft Lepton Pair and Photon Production (1991). George Taylor/Institute of Technology Alumni Society Research Award (1984). and quantum field theory, QCD and electroweak theories at finite temperature and density, effective Lagrangians, high energy nuclear collisions, neutron stars, early universe phase transitions.

JOHN B. McCLELLAND - Staff Scientist, Los Alamos National Laboratory, 1980-present; Pion Accelerator Initiative Project Manager, 1989-present; Acting Group Leader, Nuclear Physics and Spectrometer Group LANL, 1988-89; Project Leader, LAMPF Neutron Time-of-Flight Facility, 1986-88; User Liaison, LAMPF High Resolution Spectrometer facility, 1980-86; Research Associate, UCLA 1979-80; Ph.D. UCLA, 1979. Service Committees: Nuclear Science Advisory Committee, 1989-present; TRIUMF Long-Range Planning Committee, 1990-present; IUCF Program Advisory Committee, 1991; NSAC Heavy-Ion

Facility Review Subcommittee, 1990; LAMPF Board of Directors, 1988-90; Chairman LAMPF Long-Range Planning Committee, 1989; Chairman, DOE Gammasphere Cost, Schedule, and Management Review, 1988; CEBAF Semi-Annual Review, 1988; Organizer/Coordinator for 1989 NSAC Long-Range Plan Working Group, 1990 Radioactive Beam Workshop, 1990 PANIC Conference, 1991 Intersections Conference, 1992 Santa Fe DNP.

ROBERT D. MCKEOWN -- Associate Professor of Physics, California Institute of Technology, 1986--present; Assistant Professor of Physics, California Institute of Technology, 1981--1986; Assistant Physicist, Argonne National Lab., 1979--1980; Research Associate, Argonne National Lab., 1978--1979; Ph.D.--Physics, Princeton University, 1979; NSAC Long Range Plan working group, 1983; LAMPF Program Advisory Committee, 1986--1989; CEBAF Program Advisory Committee, 1986; CEBAF Hall B Co-program manager 1986--1989; APS Division of Nuclear Physics Program Committee, 1989; NSAC Subcommittee on Instrumentation, 1988--1989; LAMPF Users Group Board of Directors, 1989--1991 (Chairman 1990); CEBAF Users Group Board of Directors, 1989--1991 (Chairman 1990); Program Review, Bates Linear Accelerator Center, 1989; Committee on Future Directions at LAMPF, 1989--90; NSAC Long Range Plan working group, 1989; National Science Foundation Presidential Young Investigator, 1984--1989; Research Interests: Electromagnetic and weak interactions with nuclei and nucleons, pion-nucleus interactions, neutrino oscillations, optically pumped polarized targets.

ROBERT PERRY - Associate Professor of Physics, The Ohio State University (1991-present); Assistant Professor (1987-1991); Postdoctoral Research Associate, University of Washington (1985-1987); Visiting Research Scientist, Saclay (1984-1985). Ph.D., Theoretical Physics, University of Maryland (1984); B.A., Liberal Arts, St. John's College (1978). Presidential Young Investigator (1988). APS Division of Nuclear Physics: Program Committee (1988-1990), Bonner Prize Committee (1991-1993). Research Interests: the strong interaction, non-perturbative field theory, quantum chromodynamics, effective hadronic field theories, light-front field theory.

