



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

ACCOMPANYING THIS NEWSLETTER:

- A ballot for the nomination of DNP Officers and Executive Committee
- A ballot for voting for a second DNP Division Councillor and Secretary-Treasurer
- Bethe Prize Donation Form
- Long Range Plan for Nuclear Science Interim Report

**25-28 OCTOBER DNP MEETING,
BLOOMINGTON, IN**

- A pre-registration form which includes workshops and banquet
- A housing form
- A poster



Future Deadlines

- **16 June 1995** - Contributed Abstracts for the Bloomington Fall Meeting (see item 9)

- **23 June 1995** - User Group Deadline in order to appear in the October Bulletin (see item 9)
- **30 June 1995** - Nomination Ballot for DNP Elections (see item 3)
- **1 Sept. 1995** - Nominations for 1996 Bonner Prize (see item 5)
- **15 Sept. 1995** - Last day for Bloomington "Special" Pre-registration rates and last day for lodging reservations at the Bloomington meeting

1. DNP COMMITTEES

Executive Committee

- J. Dirk Walecka, W&M and CEBAF,
Chair (1996)
Carl B. Dover, BNL, **Past-Chair** (1996)
Lee. L. Riedinger, Univ. of Tennessee,
Chair-Elect (1996)
Bunny C. Clark, OSU, **Vice-Chair** (1996)
Virginia R. Brown, LLNL, **Secretary-Treasurer** (1996)
Stephen E. Koonin, Caltech, **Division Councillor** (December, 1995)
Peter Paul, SUNY at Stony Brook,
Division Councillor (December, 1997)
A. Baha Balantekin, Univ. of Wisconsin at Madison (1996)
Elizabeth J. Beise, Univ. of Maryland at College Park (1996)
Richard N. Boyd, OSU (1997)

Barbara V. Jacak, LASL (1997)
Joseph I. Kapusta, Univ. of Minnesota
(1997)
Glenn R. Young, ORNL (1996)

Program Committee

L. L. Riedinger, Univ. of Tennessee
(**Chair**)
B. C. Clark, OSU (**Vice-Chair**)
J. D. Walecka, W&M and CEBAF (**Past-
Chair**)
C. B. Dover, BNL (**Past-Chair**)
V. R. Brown, LLNL (**Secretary-
Treasurer**)
D. H. Beck, Univ. of Illinois
J. A. Becker, LLNL
J. M. Cameron, Indiana Univ.
J. Dubach, Univ. of Massachusetts
S. Freedman, UCB and LBL
U. Garg, Univ. of Notre Dame
T. K. Hemmick, SUNY at Stony Brook
B. V. Jacak, LANL
J. Kapusta, Univ. of Minnesota
T. L. Khoo, ANL
K. Lesko, LBL
R. Milner, MIT
R. P. Redwine, MIT
M. S. Smith, ORNL
M. R. Strayer, ORNL
M. B. Tsang, NSCL
W. A. Zajc, Columbia Univ.

1996 Bonner Prize Committee

D. F. Geesaman, ANL (**Chair**)
M. Musolf, CEBAF (**Vice-Chair**)
J. B. Ball, ORNL
F. Boehm, Caltech
R. E. Tribble, Texas A&M

1996 Dissertation Award Committee

J. D. Walecka, W&M and CEBAF (**Chair**)
C. B. Dover, BNL (**Vice-Chair**)
E. V. Hungerford, Univ. of Houston
J. Kolata, Univ. of Notre Dame
J. Rapaport, Ohio Univ.

1995 Fellowship Committee

N. Benczer-Koller, Rutgers Univ. (**Chair**)
S. J. Freedman, UCB and LBL
J. Ginocchio, LANL
J. Matthews, MIT

1996 Fellowship Committee

C. B. Dover, BNL (**Chair**)
S. J. Freedman, UCB and LBL
J. H. Hamilton, Vanderbilt Univ.
B. Müller, Duke Univ.

1995 ad-hoc Committee on Education

P. Cottle, Florida State Univ. (**Chair**)
N. Benczer-Koller, Rutgers Univ.
J. Carr, Florida State Univ.
C. Olmer, Indiana Univ.
P. Rutt, Rutgers Univ.
C. Stone, San Jose State Univ.

Nominating Committee

W. F. Henning, ANL (**Chair**)
R. D. McKeown, Caltech
P. Paul, SUNY at Stony Brook
S. J. Seestrom, LANL

Nuclear Science Resources Committee

L. L. Riedinger, Univ. of Tennessee (**Chair**)
J. G. Cramer, Jr., Univ. of Washington
G. M. Crawley, Michigan State Univ.
J. Finck, Central Michigan Univ.
R. Hahn, BNL
L. S. Schroeder, UCB and LBL
R. Whitney, CEBAF

Physics News Committee

L. L. Riedinger, Univ. of Tennessee (**Chair**)
A. B. Balantekin, Univ. of Wisconsin at
Madison
D. H. Beck, Univ. of Illinois
R. N. Boyd, Ohio State Univ.
B. C. Clark, Ohio State Univ.
G. R. Young, ORNL

Appointments of members to DNP committees are for one- or two-year terms. Division Councillors are elected for four-year terms. Executive Committee dates correspond to the end of the term following the Spring Meeting except for Division Councillors as indicated.

2. SPECIAL ELECTION FOR ADDITIONAL DNP COUNCILLOR AND SECRETARY-TREASURER

Besides the additional dues revenue, the size of the DNP membership is a significant factor in how well the DNP can represent the interests of the nuclear physics community in the APS as well as in the planning for the future of the field. The APS Constitution and Bylaws state that the number of Division Councillors is determined by the subunit membership at the end of December in the year prior to the year an election would be held to replace an existing Division Councillor. At the end of 1991 the DNP membership was 2,417, which was 5.59% of the APS membership of 43,207. This was insufficient for the DNP to maintain two Division Councillors. At the end of 1992, thanks to a vigorous campaign by many DNP members, the membership reached 2,896, which was 6.62% of the APS membership of 43,710.

At the end of 1994, the DNP membership was 2,671, which was 6.41% of the APS membership of 41,670. This is sufficient to elect a new DNP Councillor, who will begin a four year term in January 1995, replacing Stephen E. Koonin.

The candidates for Division Councillor selected by the Nominating Committee are James B. Ball and John P. Schiffer. In addition, a new Secretary-Treasurer is needed to replace Virginia R. Brown, who is stepping down. The candidate for this office selected by the Nominating Committee is Benjamin F. Gibson. The candidates' biographies follow and the ballot is enclosed. The Nominating

Committee consisted of J. M. Cameron (Chair), J. Cizewski, P. Paul and J. Vary.

The enclosed election 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 **30 June 1995** in order to be counted.

Candidate Biographies for Division Councillor

JAMES B. BALL - Associate Director for Physical Sciences and Advanced Materials (Acting), Oak Ridge National Laboratory (1994-present); Director, Physics Division (1983-1994); Director, Holifield Heavy Ion Research Facility (1974-1983); Visiting Scientist, Niels Bohr Institute (1971-1972); Acting Director, Cyclotron Laboratory, ORNL (1970-1972); Research Staff Member, ORNL (1958-present); B. S. Oregon State University (1954); Ph. D. University of Washington (1958); NSF Graduate Fellow (1957- 1958); Fellow APS; Fellow AAAS; DNP Program Committee (1980- 1982, 1987-1991); DNP Executive Committee (1989-1991); Chair, APS Division of Nuclear Physics (1990); DOE/NSF Nuclear Science Advisory Committee (1980-1982, 1990); Board of Trustees, Southeastern Universities Research Assoc. (1984-1989); RHIC Policy Advisory Committee (1986-present); Research interests: Nuclear structure with direct reactions, two-nucleon transfer reactions, shell-model theory, radioactive beams, accelerator physics.

JOHN P. SCHIFFER - Senior Physicist, Argonne, and Professor of Physics, University of Chicago; B.S. Oberlin College, 1951, Ph.D. Yale, 1954; Research Associate, Rice University 1954-56; Argonne ever since; University of Chicago since 1968. Sabbaticals: Guggenheim Fellow 1959-60 Harwell, England; Princeton, 1964; Rochester 1967-68; Humboldt Fellow, T.U. Munich 1973-74. Fellow APS; member Executive Committee 1972-77 DNP; chair 1974-75, Bonner Prize Committee, APS Publication

Committee, APS Nominating Committee; Bonner Prize 1976. Member National Academy of Sciences. Fellow AAAS; chair Physics Section 1991. Program Advisory Committees LAMPF, IUCF, Bates, Bevalac, AGS, GSI, CEBAF. NSAC 1980-86; chair 1983-86, various NSAC subcommittees since. Various advisory and review committees for DOE. NSF Physics Advisory Committee 1970-73, other NSF review committees. Editor or Associate Editor, *Reviews of Modern Physics* 1972-77; *Physical Review C* 1983-85; *Physical Review Letters* 1972; *Comments on Nuclear and Particle Physics* 1971-75; *Physics Letters B*; 1978 -; *Annual Reviews of Nuclear Science* 1987-91. Research Interests: Nuclear structure and symmetries, behavior of nuclei under extreme conditions, exotic particle searches, medium modifications in nuclei for nucleon, pion, delta propagation, behavior of cold ion beams and ions in ion traps, etc.

Candidate Biography for Secretary-Treasurer

BENJAMIN F. GIBSON - Staff Member, Los Alamos National Laboratory, 1972 - present; Group Leader 1982-86; B.A. Rice University, 1961; Ph.D. Stanford University, 1966; Post Doctoral Fellow, LLNL, 1966-1968; NRC Post Doctoral Research Associate, NBS, Gaithersburg, 1968-1970; Research Associate, Brooklyn College of the CUNY, 1970-1972. APS Fellow; JSPS Research Fellow, Sendai, 1984; Murdoch Fellow, INT Seattle, 1992; Humboldt Research Award for Senior U.S. Scientists, Juelich, 1992-present. NSAC Subcommittee on Computers and Computing, 1984-85; Bates Program Advisory Committee, 1985-89; LAMPF Program Advisory Committee, 1993; Few-Body Systems Topical Group Vice-Chair, Chair-Elect, and Chair, 1990-93; DNP Program Committee, 1990-92; Natural Sciences and Engineering Research Council of Canada, Subatomic Physics Grant selection Committee, 1994-97. Editorial Board of *Physical Review C* 1978-79, 1987-88; Editorial Board of *Few-Body Systems*, 1986-91, 1992-present; Associate Editor of

Physical Review C; 1988-92, 1992-present. Program Chairman for the APS April Meeting, 1992; Organizing Committee for the DNP Fall Meeting, 1989; local organizer for the DNP Light Hadronic Probes Town Meeting, 1989. Research interests: few-body systems, hypernuclei, electromagnetic interactions in nuclei, meson interactions with nuclei, parity nonconservation in nuclear systems, hadron structure.

3. NOMINATION OF OFFICERS AND EXECUTIVE COMMITTEE FOR 1996

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 Indianapolis, IN, 2-5 May 1996. Lee L. Riedinger will become Chair, Bunny C. Clark will become Chair-Elect and Richard N. Boyd, Barbara V. Jacak and Joseph I. Kapusta will remain members of the Executive Committee. A Vice-Chair and three members of the Executive Committee are to be elected before April 1996.

The enclosed nominating ballot must be signed and may be returned in the enclosed envelope with your name and address printed or signed legibly in the upper left hand corner of the envelope. It must be received by ***Virginia R. Brown*** on or before ***30 June 1995*** in order to be counted. The DNP bylaws require that a nominee proposed for a given post by not fewer than one-fiftieth of the members (53 for this election) shall be deemed nominated to that post.

If you are a DNP member, please exercise your right to nominate candidates for the upcoming DNP elections. In 1994 there were only 43 nomination forms received by the Secretary-Treasurer. More members vote in the DNP elections, but for 1994 only about 775 election ballots were mailed in by members. **It is important to vote!**

4. 1996 DISSERTATION AWARD IN NUCLEAR PHYSICS

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

Nature: The Award consists of \$1,000 and an allowance for travel to the annual Spring meeting of the Division of Nuclear Physics of the American Physical Society at which the award will be presented.

Rules and Eligibility: Nominations are open to any person who has received a Ph.D. degree in experimental or theoretical nuclear physics from a North American university within the two-year period preceding the deadline.

Send before **1 September 1995** the name of the proposed candidate, a summary of up to four pages of the thesis research, and a statement of his/her contribution to it as well as any contributions from others. A letter of support from the physicists who are familiar with the candidate and the research. To expedite the process, copies of the thesis should be made available for the five committee members. This information is required and should be sent to Professor J. D. Walecka, CEBAF, 12000 Jefferson Avenue, Room C210, Newport News, VA 23606. The other committee members are C. B. Dover, E. V. Hungerford, J. Kolata, and J. Rapaport.

5. NOMINATIONS FOR 1996 TOM W. BONNER PRIZE IN NUCLEAR PHYSICS

This annual prize was established in 1964 as a memorial to Tom W. Bonner by his friends, students and associates. Previous winners are: H. H. Barschall, R. J. Van de Graaff, C. C. Lauritsen, R. G. Herb, G. Breit, W. A. Fowler, M. Goldhaber, J. D. Anderson and D. Robson, H. Feshbach, D. H. Wilkinson, C. S. Wu, J. P. Schiffer, S. T. Butler and G. R. Satchler, S. Polikanov and V. M. Strutinsky, R. Middleton and W. Haerberli,

R. M. Diamond and F. S. Stephens, B. L. Cohen, G. E. Brown, C. D. Goodman, H. A. Enge, E. G. Adelberger, L. M. Bollinger, B. Frois and I Sick, R. H. Davis, E. M. Henley, V. W. Hughes, P. Twin, H. G. Blosser and R. E. Pollock, A. Arima and F. Iachello, E. K. Warburton, and F. Boehm.

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

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

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

Send name of proposed candidate and supporting material before **1 September 1995** to: Donald F. Geesaman, Building 203, Physics Department, Argonne National Laboratory, 9700 S. Cass Avenue, Argonne, IL 60439.

6. FUTURE DNP FALL MEETINGS

The present schedule for fall meetings is as follows:

1995	October 25-28 Bloomington, IN
1996	October 2-5 Cambridge, MA
1997	October 5-8 Whistler, B.C.
1998	October Santa Fe, NM
1999	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 is a tradition that began with the 1986 Vancouver meeting. All meeting attendees are welcome and encouraged to come. It has been the intention of the DNP Executive Committees that these "workshops" should have broad appeal, with introductory pedagogical talks for the benefit of those who have come primarily for the DNP meeting but want to take the opportunity to learn about a field of specialty of the local community.

7. DNP BUSINESS MEETING AT THE 1995 SPRING APS MEETING, WASHINGTON, D.C., 18-21 APRIL 1995

The Business Meeting of the DNP was held at 16:54, Thursday, 20 April in the South Salon of the Ramada Renaissance Techworld Hotel following Session K2. The meeting opened with congratulations to the Bonner Prize recipient, Dr. Felix Boehm and to those elected to APS Fellowship in the DNP, viz. John M. Alexander, A. Baha Balantekin, R. Russell Betts, Peter Braun-Munzinger, Karl A. Erb, Harold E. Jackson, Che-Ming Ko, Kuniharu Kubodera, Berndt Mueller, Witold Nazarewicz, Costas N. Papanicolas, Akunuri V. Ramayya, Dan-Olof W. Riska and Susan J. Seestrom..

The outgoing DNP Chair, Carl Dover, thanked other officers and committee members with whom he had worked during his tenure.

The Secretary-Treasurer, Virginia R. Brown, reported on the remarkably solvent financial status of the DNP treasury and the DNP prize funds. She reported that the Bonner-Prize fund-raising drive spear-headed by Koller had been successful, and that the prize stood at \$122,123 as of 31 March 1995. A complete list of donors is attached to this newsletter. For a report on the new Bethe Prize, see item 12 of this newsletter.

The incoming DNP Program Chair, Lee L. Riedinger, reported on the plans for the 1995 Fall meeting at Bloomington, IN. See item 9 of this newsletter for more details.

Other items on the agenda included a report on the DOE and NSF budget processes from Dave Hendrie (DOE) and Jack Lightbody (NSF). See item 14 for summary of the budget situation. J. Dirk Walecka (for E. Moniz, NSAC Chair) gave a report on NSAC activities (see item 17). Lee Riedinger (for G. Crawley) gave a report on the progress of the DNP Brochure (see item 16).

8. DNP TUTORIALS PRESENTED AT 1995 APS SPRING MEETING AT WASHINGTON, D.C.

The Division of Nuclear Physics organized a tutorial session presented on Monday, 17 April at 1:00 pm, launching the 1995 Spring APS meeting held at Washington, D.C. This course was intended to acquaint scientists with recent key developments and frontier research areas in nuclear physics. The presentation was pedagogical and was intended for young scientists, including graduate students and postdoctoral appointees, as well as senior scientists who would like to learn about a new field. The DNP is currently organizing another tutorial for the 1996 Spring APS meeting in Indianapolis, IN. The following summaries outline the three topics covered in the 1995 tutorials.

Dynamics of Hadronic Matter, Brian D. Serot (Indiana University). We considered hadronic matter as just another form of condensed matter and studied its bulk properties as functions

of density, temperature, and composition (proton fraction). We motivated the use of relativistic models containing (Dirac) nucleons and mesons to describe these bulk properties. A simple model containing nucleons and neutral scalar and vector mesons was applied at the mean-field level and calibrated to the equilibrium properties of cold nuclear matter. With the addition of nonlinear interactions among the scalar and vector mesons, as well as an isovector (ρ) meson and the Coulomb interaction, it was shown that this mean-field approach gives an excellent description of nuclear charge densities, single-particle spectra, and binding energies throughout the periodic table, as well as nuclear deformations in the s-d shell. We then applied a similar mean-field approach to the linear sigma model and showed that, even with some additional nonlinear meson interactions, this model failed to reproduce observed nuclear properties even qualitatively. It was argued that this failure arises because one identifies the chiral partner of the pion (in the sigma model) with the scalar field used in the successful models studied earlier. An alternative scenario was presented in which the chiral scalar is made very heavy (so that it essentially decouples), and correlated two-pion exchange between nucleons generates the required mid-range attraction; the connection between this new scenario and the successful mean-field models was then described.

Hot QCD and High Energy Nuclear Collisions, Joseph I. Kapusta (University of Minnesota). Strongly interacting matter undergoes a transition from hadrons to a plasma of quarks and gluons at high energy density. A survey of what is known about QCD in this context was presented, especially results from perturbation theory and lattice gauge theory. Interesting issues which were addressed include what we mean by deconfinement of quarks and whether or not color magnetic fields are screened at high temperatures. Then high energy nucleus-nucleus collisions were discussed. Relativistic cascade simulations of gold-gold collisions at Brookhaven's AGS, based on hadronic degrees of freedom, show central baryon densities of 5 times that in ground state nuclei and energy densities 12

times greater. Current experiments are in quantitative agreement with these calculations, although rare events may involve nucleation of quark-gluon plasma. Predictions of the parton cascade model for future gold-gold collisions at RHIC, with 100 GeV per nucleon per beam, show central temperatures 3 times larger than the expected phase transition temperature. Experimental probes of interesting new physics relating to color deconfinement and chiral symmetry restoration were discussed.

The Structure of Nuclei and Nucleons as Revealed by Electron Scattering, Larry S. Cardman (CEBAF). We began by reviewing the basics of "classical" (inclusive) electron scattering and its application to the determination of the ground state and transition charge and current densities in nuclei. This was followed by a discussion of how the electron scattering technique can be extended through the use of experiments in which polarization degrees of freedom and/or coincidence measurements of reaction products are exploited. Specific examples were taken from recent and planned experiments in the field. The topics in nuclear structure included: (e, e'p) investigations of the shell structure of nuclei and their extension to high momentum transfers; the isoscalar/isovector decomposition of three-body form factors; and comparison of this decomposition with new results for the deuteron. Examples from the study of nucleon structure included: the use of electron scattering and tagged photon induced reactions to investigate the excited state structure of the nucleon (both the search for missing states and the N- Δ transition); the determination of the electric form factor of the neutron; and the use of parity violating electron scattering to investigate the weak neutral current structure of the nucleon.

9. DNP FALL MEETING AT BLOOMINGTON, IN, 25-28 OCTOBER 1995

The Annual Fall Meeting of the Division of Nuclear Physics, including workshops, will be held 25-28 October 1995 at the Indiana University Memorial Union in Bloomington, Indiana. The beautiful woodland campus of

Indiana University will still be awash in fall colors and the music program associated with the renowned music school will be in full swing. As part of the latter, there will be an opera on the Saturday night, 28 October 1995. For anyone interested in attending this, tickets should be requested well in advance. In addition to being a quintessential college town, Bloomington and the surrounding area are noted for artisans working in many media. Temperatures at the end of October are generally moderate with highs about 65°F.

Meeting Program

The meeting will consist of six sessions of invited papers, one of which is the plenary session, and approximately 25 sessions of contributed papers. One invited session on "*Axial Currents in Nuclear Systems*" has been organized by the Local Committee. Two other invited sessions will be on topics selected by the program committee at the recent Washington, D.C. APS meeting. One session on "*Electromagnetic Interactions*" is being arranged by J. Dubach (Univ. of Massachusetts). Another session on "*Towards Superheavy Elements*" is being arranged by Teng Lek Khoo (ANL). The remaining two invited sessions will be selected by the DNP Program Committee from nominations made by the DNP membership at large. Overhead projectors will be provided in each room; slide projectors will only be available for invited papers (if requested in advance).

Plenary Sessions

Since the 1995 long range planning activities will be completed by the Bloomington meeting, Walecka has proposed a plenary session at Bloomington along the lines of the Nuclear Physics Brochure on "*Basic Nuclear Science Serving Society*."

Possible topics were suggested at the recent DNP Executive and Program Committee meetings. Suggestions for one topic included accelerator burning of radioactive waste, disposal of plutonium materials, accelerated production of tritium, and subcritical reactors. Nuclear physics

funding considerations and the future of basic science at national laboratories, was suggested as another topic of interest. A speaker from industry on the "applications of nuclear physics" with topics such as data storage, the environment, scintillators, etc. was another suggested possibility. Nuclear medicine, which was treated in the DNP Brochure, was the topic that got the most enthusiastic support, with pet scan and MRI applications standing out as especially interesting topics. An appealing feature of nuclear medicine is that this is a field where nuclear physicists are currently very active, developing safer and more accurate methods for diagnosis and treatment. Another topic that received strong support was scientific outreach and education. The DNP has recently established an ad hoc Committee on Education (see item 18). Furthermore, this is an important component of the Long Range Plan. Since there will be a workshop on this general topic at Bloomington, there was some caution about not covering the same ground.

If you have any suggestions of topics that may be of interest to the community at large, please contact J. Dirk Walecka as soon as possible ("walecka@cebaf.gov").

Town Meeting

There will be a "*town meeting*" plenary session to be held on Friday afternoon. The intent of this session is to provide an opportunity for a large segment of the nuclear science community to be exposed to and to contribute to arguments regarding future challenges and priorities for the field.

Workshops

Two workshops to be held on 25 October prior to, but in conjunction with, the DNP meeting are being planned. One workshop will be on "*Physics at the Transition...*". The second will be on "*Graduate Education in Nuclear Physics; Changing Goals for Changing Times*". The workshops will run in parallel. A \$30 registration fee covers both workshops. Registration will begin on 24 October at 17:00 - 19:00 hours and will continue on 25 October at 08:00 hours.

The first workshop on "*Physics at the Transition...*" will address physics issues in the regime between low momentum transfer, where effective meson-exchange theories work well, and the perturbative regime where hadron-hadron interactions appear to be successfully described via individual hard collisions of the constituent partons. A central requirement of models for the transition regime is that they provide a unified framework for treating the non-trivial interplay between hadron substructure and hadronic interactions. These questions are central to the program at CEBAF and also will be the core for the LISS facility being proposed as the natural extension to fully exploit new techniques developed at the IUCF Cooler.

The second workshop on "*Graduate Education in Nuclear Physics; Changing Goals for Changing Times*" will address potential changes in graduate education of nuclear physicists to meet the challenges of tomorrow. While similar questions are being addressed in a wider context elsewhere by the APS, this workshop will allow professionals and students to discuss the particular ramifications for nuclear physicists of the changing environment in which we work and live.

Abstracts for Contributed Papers

To provide sufficient time for printing abstracts in the Bulletin, the deadline for contributed abstracts is **16 June 1995**. Abstracts should conform to the format specified in the APS News and should be sent, in triplicate, to:

Dr. Virginia R. Brown
Secretary-Treasurer of the Division of Nuclear Physics
Lawrence Livermore National Laboratory; Mail Stop L-288
7000 East Avenue
Livermore, CA 94550

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; in addition 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.

Registration

On-site registration for the meeting will begin on October 24 at 17:00 - 21:00 hours and continue on 25 October from 08:00 - 21:00 hours. The pre-registration fees are \$100 for APS members, \$200 for non APS members and \$10 for retired and unemployed members as well as students. The cost of the workshops is an additional \$30. The cost of registration will increase after the pre-registration date of **15 September 1995**.

Accommodations

Reservations for all conference hotels will be coordinated by the Indiana University Cyclotron Facility. The Conference Center is at the Indiana University Memorial Union; other hotels are about two miles from the Union.

Travel

Bloomington is best reached through the Indianapolis Airport which is about 45 miles away. The airport has rental car, taxi and limousine service. Details and maps will be sent to all pre-registered attendees.

Reception and Tour of IUCF

A reception at and tour of the Indiana University Cyclotron Facility will be held on

Thursday, 26 October. Bus service will be provided from the Conference Center and hotels to IUCF and back.

Local Committee

Further details and the final program for the meeting and workshops will be given in the October Bulletin. Members of the Local Committee are J. Cameron (Chair), L. Bland, R. de Souza, K. Kwiatkowski, H. Meyer, H. Nann, C. Olmer, R. Pollock, M. Snow, J. Szymanski, V. Viola and B. Serot.

Users Group Meetings

It is anticipated that many groups will wish to hold User Group Meetings during the fall meeting at IUCF. In order to schedule them so as to prevent conflicts with other activities and to have them announced in the October Bulletin, it will be necessary to make arrangements with the Local Organizing Committee by **23 June 1995**.

The DNP offers space at the fall meeting for User Group meetings at no cost whenever possible. User groups often elect to serve refreshments for which they are financially responsible. Failure to pay these costs have delayed recent meeting proceeds from being transferred to the DNP account by up to and, in some cases, more than a year. One solution has been that the costs are subtracted from the DNP meeting revenue. The delay results in lost interest and is a financial burden for the DNP, which has paid all the up-front costs, such as the Bulletin, which is about \$10,000. Prompt or advance payment of refreshments and other costs by User Groups would be sincerely appreciated by the DNP.

Opera

A limited number of seats are available for the Indiana University School of Music's production of "Rigoletto" on Saturday, October 28, at 8:00 p.m. in the Musical Arts Center. Non-subscription ticket sales begin September 11th; ticket prices range from \$12 to \$20. Tickets may be reserved by contacting Sharon Herzelt at the address given below.

Meeting Information

For further information, please contact Ms. Sharon Herzelt, DNP Conference, Indiana University Cyclotron Facility, 2401 Milo B. Sampson Lane, Bloomington, IN 47408. Telephone: (812) 855-9365; Fax: (812) 855-6645; e-mail: "dnp95@iucf.indiana.edu".

10. QUESTIONNAIRE REGARDING DNP/APS MEETING ATTENDANCE, E. HENLEY

The DNP would like to improve the attendance of its members at the DNP/APS spring and fall meetings. Towards this goal, would you please respond to the following simple questions:

1. Do you attend:
 - (a.) the DNP/APS Fall Divisional Meeting?
 - (b.) the Annual spring Meeting?
2. If you do not do so, what would it take or what can the DNP or APS do to enhance your attendance at (a.)? or (b.)?

Even if you do attend the meetings, and you would like to suggest changes that might improve the meetings, please do so. Replies should be sent to "henley@phys.washington.edu".

11. 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 Peggys Mendoza, The American Physical Society, One Physics Ellipse, College Park, MD 20740-3843. Completed forms should be returned to Dr. J. Franz at the same address.

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 have a record of excellence in research that has been sustained over several years, and have done at least one major, original work that has influenced his/her specialty in a significant way.

The list of APS Fellows (by APS subunit) elected in a given year is published in the March issue of APS News. 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.

The 1995 DNP Fellowship Committee is comprised of Noemie Benczer-Koller (Chair), J. Matthews, S. J. Freedman and J. Ginocchio. 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.

12. APS BETHE PRIZE, W. HAXTON AND E. HENLEY

The DNP has joined with the Division of Astrophysics in an effort to create a new APS prize in honor of Hans Bethe. The goal is to raise the necessary \$100,000 within the next year, so that the prize can be self-sustaining.

The goal of the Divisions is to complete the funding raising within the next year, so that the

prize can be established prior to Hans' 90th birthday, July 2, 1996. A committee has been formed to work toward this goal. We believe that the affection of the community for Hans and the significance of his contributions to physics, industry, and government should make this task easier.

Hans recently presented a talk at the Washington APS meeting in which he described himself as a nuclear physicist and an astrophysicist. The prize is intended to reflect the breadth of Hans' interests, and will be awarded for outstanding work in either of these fields.

We are asking each member of the two Divisions to consider supporting this effort. To date, donations from individuals total about \$10,000. The committee has set \$25,000 as the goal for individual contributions. A list of contributors as of 31 March 1995 is attached at the end of this newsletter. You will find enclosed in this newsletter a donation form that can be mailed to the DNP Secretary/Treasurer, Virginia R. Brown. We believe the broader the support for this effort, the more meaning the prize will have for Hans and for our community. Thank you for your help.

13. PHYSICS NEWS IN 95, L. L. RIEDINGER

A DNP committee for Physics News 1995 has been formed. The members are shown in item 1 of this newsletter. In the next few months, the committee will prepare a summary of the most newsworthy developments in nuclear physics in the past year for publication in the March 1996 issue of APS News. Members of the DNP are encouraged to suggest topics for Physics News to the committee chair, Lee Riedinger (riedinge@utkvx.utk.edu). Physics News 1994 has just been published as a supplement to APS News in April of 1995. Please check that to see what topics have been covered recently.

14. BUDGET UPDATE FROM THE NUCLEAR SCIENCE RESOURCES COMMITTEE, L.L. RIEDINGER, CHAIR

The Clinton administration budget request for the coming fiscal year (FY96) is under consideration by the Congress at this time. The total for federal funding of Research and Development is nearly constant (\$72.9B in the request compared to 72.7B in FY95), but the portion for basic research is scheduled to rise by 3.5% to \$14.5B.

In the Department of Energy, the total FY96 request is \$17.8B, up 2% over FY95. For Nuclear Physics the proposed budget is \$321.1M, down from 331.5M in the current fiscal year. This drop is caused by a \$21M decrease in Facilities Operations, which covers mostly Bates, CEBAF, and LAMPF. The nuclear physics operation of LAMPF is ending (loss of \$23.3M), but there are small increases in the operating budgets for the other two. High Energy Physics would rise from \$642M to 685.6M in the FY96 budget, and Basic Energy Sciences by almost 11% to \$811.4M. The proposed nuclear physics budget includes a \$25M increment as part of the \$100M Scientific Facilities Utilization Enhancement, to increase the usage of the DOE fundamental science and user facilities, in the way of facility operations, instrumentation, and user support.

The requested FY96 budget for the National Science Foundation is \$3.36B, up 3% over FY95. Of this, the budget for Research and Related Activities would rise by 7.6% to \$2.45B. The budget for Mathematical and Physical Sciences would increase by 8.3% to \$698M; of this Physics is slated for a 9% bump to \$142 million. This is the first time in several years where the projected budget increase for Physics is larger in percentage than that for any of the broader categories, including the agency itself. A more detailed breakdown beyond Physics was given in the excellent Physics Today article (April, 1995), but that is not an official part of the budget request to the Congress, and thus could be done differently by the NSF later.

The fate of the President's request is not clear in view of the huge debate in the Congress on budget cutting, balancing the federal budget,

and possibly eliminating or downgrading departments. Even the Clinton proposal is to decrease the total DOE spending by \$14B over the next five years, partially by selling some assets. The Congress would like to have an accumulated decrease in federal spending of \$1.5 trillion over the next seven years. The problem is how to do this without decimating "discretionary" spending. In the proposed FY96 budget (\$1.6 trillion), only 34% is listed as discretionary, the rest being mandatory (\$806B) and interest payment (\$257B) on the national debt. No one knows how much of the reduction burden the mandatory part of the budget can be expected to take, in view of the politics of the situation. There is certainly a general political mood in Congress to support basic research, science, and technology. In spite of this, one could observe a 25 - 35% decline in science and technology funding over the next five years, if this scheme plays out in full force.

The Budget Committees of the House and Senate report the broad budget blueprints in mid-May, and this gives the first official glimpse of how solid is the apparent fervor to eliminate one or more federal departments (energy is always on the hit list). Funding for nuclear physics would then be shifted to another place in the federal government, perhaps a new Department of Science. While these changes are unlikely to happen rapidly (if at all), the budget implications on the discussed departments could be profound. Authorization and appropriations committees will write their bills over the summer, as this process continues in a highly charged political atmosphere. As suggested in the excellent FYI series (<http://www.aip.org/>) done by the American Institute of Physics, it is important for scientists to express their views on these difficult issues to their elected officials. Support of basic research has remained solid in spite of political changes in the past 10 years, and hopefully the same trend will continue. Nevertheless, it is important for all of us to be heard.

15. ISOTOPE UPDATE FROM THE NUCLEAR SCIENCE RESOURCES

**COMMITTEE, L.L. RIEDINGER,
CHAIR**

After a series of bleak reports on the status of the DOE isotope program over the last several years (last reported in July of 1994), there is suddenly progress in the funding and administration of this very important program. There has been considerable pressure on DOE and the Congress over this issue, including from the recently released report of the Institute of Medicine (discussed last July).

Many of the difficulties had sprung from the instructions in a 1989 appropriations bill concerning the operation of the DOE Isotope Production and Distribution Program (IPDP) on a pure cost recovery basis, with no federal subsidy. This proved unworkable, especially since DOE is under a dictate to avoid competing with a commercial supplier and instead must allow a private company to produce and sell certain isotopes if petitioned by that company. Consequently, DOE had to get out of the business on the profitable isotopes and keep responsibility for the "unprofitable" ones.

These problems were largely solved by the DOE FY95 Energy and Water Appropriations bill, which revoked the constraints of the earlier law and appropriated \$19.5M for IPDP, including \$7.5M for converting a Sandia reactor to produce ^{99}Mo for the biomedical field (at present there is no US supplier of this very important radioisotope for hospitals). Some of this fund is also used for separating rare isotopes of importance to the nuclear physics community (replenish declining inventories), and for R&D on new separation technologies. As a result, one segment of eight Calutrons is running again at Oak Ridge, and a second segment will soon begin operation. In addition, the special laboratory for converting material and making targets is being re-established at the Oak Ridge Y-12 site, after a move from X-10. This laboratory is perhaps 75% rebuilt.

The FY96 budget request for DOE includes \$26M for the IPDP, including \$12M for the

^{99}Mo reactor conversion and \$14M for the rest of the program.

16. DNP BROCHURE, G. M. CRAWLEY

The DNP Brochure was completed by the time of the DNP meeting last fall in Williamsburg, VA. Eight thousand copies were printed and 300 of these disappeared like snow in July when they were made available at the Fall 94 meeting. Shortly after that one copy was distributed to all DNP members. Overall about 7000 copies have been distributed so far. The other large distributions were to the chairs of physics departments of all research universities and selected four-year colleges, all members of the U.S. Congress and to DOE and NSF. In addition, copies were sent to directors of large laboratories both here and in Europe, to members of HEPAP and NUPPEC, to the officers of other APS divisions and to about 20 science journalists. About 2000 copies have been distributed in response to individual requests from a wide variety of people both in the U.S. and overseas. Perhaps the most unusual request was from a UN official in Cairo who wanted to use the brochure to illustrate the benefits of basic research to government officials in the Arab countries. It amazed me how the information on the brochure spread around the world. We will continue to distribute the remaining copies as they are requested and may do a second printing once this first printing has disappeared. Finally with the help of Dr. Balantekin, we hope to put the Brochure on the World Wide Web so that it will be accessible electronically.

17. NSAC REPORT, J. D. WALECKA

On Tuesday afternoon, April 18, at the Washington APS meeting, there was a DNP Symposium that consisted of a presentation to the community of the Interim Report on the NSAC Long-Range Plan for Nuclear Science. Carl Dover, DNP Chair, chaired the session. First there was a brief report on the current long-range planning process, as described in the two previous DNP newsletters. Then E. Moniz, Chair of NSAC, presented the recommendations of the long-range plan working group. There followed brief presentations by the four chairs of the long-

range plan writing groups which focused on the science: Nuclear Structure and Dynamics: Exploring the Limits (W. Henning); To the Quark Structure of Matter (R. McKeown); The Phases of Nuclear Matter (B. Mueller); Fundamental Symmetries and Nuclear Astrophysics (E. Adelberger). E. Moniz then discussed budgets.

There was good attendance, and although ample time had been allowed for discussion, the session ended early. In the evening, the DNP Executive Committee unanimously endorsed the Interim Report as presented.

On Wednesday there was an NSAC meeting which finalized the Interim Report — it is appended to this newsletter. This Report is the culmination of the input and work of a great many people over a short period of time. It is an effort of which we can all be proud. Special thanks go to E. Moniz for his excellent leadership. The current plan is to produce the full Long-Range Plan by the end of July.

NSAC also endorsed and transmitted its subcommittee report on the RHIC additional experimental equipment request (see previous two DNP newsletters). The letter of transmittal reflects the recommendations in the Interim Report on the Long-Range Plan.

18. DNP ad hoc COMMITTEE ON EDUCATION, P. COTTLE (CHAIR) AND N. KOLLER

The DNP has formed an ad hoc Committee on Education to enhance the public awareness of nuclear physics and nuclear science issues. The committee will be engaged in activities aimed at the general public as well as at students at the middle school, high school and university levels. In selecting its projects, the committee is focusing on activities which will benefit from a national perspective. Presently, the members of the committee are Paul Cottle (Florida State University), who is serving as Chair, Jim Carr (Florida State University), Noemie Koller (Rutgers University), Catherine Olmer (Indiana University), Paul Rutt (Rutgers University) and

Craig Stone (San Jose State University). The committee will be enlarged as new opportunities for outreach are identified and new members who wish to pursue these opportunities are added.

Because of the cooperation of the Long Range Plan Working Group on Outreach and Undergraduate Education (chaired by Noemie Koller), the Education Committee will have the chance to review responses from the LRP outreach and undergraduate education survey. The responses include many excellent ideas for national-level outreach activities.

Several of the committee members are already actively engaged in projects. Paul Rutt is beginning the process of designing a traveling exhibit on nuclear physics for science museums. Craig Stone is working on a project to make real-time nuclear science experiments available to middle and high school students via the Internet. Jim Carr is starting to assemble a World Wide Web resource for middle and high school students who wish to investigate the field of nuclear science for term papers and other projects.

In addition, the possibility of producing a show on nuclear astrophysics for a TV series on science (such as the PBS series Nova) is being discussed with the Chair of the Division of Astrophysics, Wick Haxton. The construction of large neutrino detectors such as SNO may offer the opportunity for some spectacular footage.

19. WWW HOME PAGE FOR DNP, B. BALANTEKIN

A worldwide web home page for the Division of Nuclear Physics is currently under development. A preliminary version is available at "<http://nuclth.physics.wisc.edu/dnp/>". We would like to hear your comments and suggestions. Please send them to "dnpp@nuclth.physics.wisc.edu".

20. 1995 CEBAF/INT WORKSHOP, "THE Y-N INTERACTION AND HYPERNUCLEAR PHYSICS" OCT. 29 - NOV. 5, 1995 (DATES TENTATIVE)

The CEBAF/INT workshops bring theorists and experimentalists together to discuss new physics opportunities at CEBAF. This year's workshop will be held at CEBAF, tentatively immediately following the DNP fall meeting. Its focus will be to improve our understanding of the strong Y-N interaction and its implications for hypernuclei and hypernuclear structure. Among the questions to be addressed are: How can electro-production of strangeness from light nuclei be used to learn more about the Y-N interaction? How can this information be used to construct realistic hypernuclear potentials? Which aspects of hypernuclear structure and hypernuclear decays can be used to test these potentials? One goal of the workshop will be to provide direction for a prospective hypernuclear program at CEBAF.

For more information, contact:

C. Bennhold

bennhold@gwuvvm.gwu.edu

M. Musolf *musolf@cebaf.gov*

R. Schiavilla *schiaivilla@cebaf.gov*

21. 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.

1994-95 Prices: The dual prices (separated by a slash) listed below correspond to USA/other countries including Canada. Volumes 12-41 are \$55/\$60 retail and \$39/\$42 for DNP members. Volumes 42 and 43 are \$59/\$64 retail and \$42/\$45 for DNP members. Volume 44 is \$62/\$67 retail and \$44/\$47 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.*

22. FUTURE CONFERENCES

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

"1995 Gordon Research Conference on Nuclear Chemistry", to be held 18-23 June 1995, Colby-Sawyer College, New London, New Hampshire. The focus of the conference will be on nuclear structure studies. [For further information contact: W. Nazarewicz, Joint Institute for Heavy Ion Research, Oak Ridge National Laboratory, Bldg. 6998, MS6374, P. O.

Box 2008, Oak Ridge, TN 37831, phone: (615) 574-4580, fax: (615) 576-5780, e-mail: "witek@utkvx.utk.edu".

"Groningen Conference on Giant Resonances", to be held 28 June - 1 July 1995, Groningen, The Netherlands. Updated information concerning this conference is available via the World Wide Web (WWW) at the KVI. This can be accessed via the world map on WWW or more directly via the server at [HTTP://info.kvi.nl/](http://info.kvi.nl/) in WWW. Preregistration can also be done via WWW. [For further information contact: Olaf Scholten, Kernfysisch Versneller Instituut, Zernikelaan 25, NL-9747 AA Groningen, The Netherlands, phone: 31-50-633600 (Institute), 31-50-633552 (Office), fax: 31-50-634003, e-mail: "scholten@kvi.nl"].

"Sixth International Symposium on Meson-Nucleon Physics and the Structure of the Nucleon" to be held 10-14 July 1995, in Blaubeuren, Germany. [For further information contact: Gerhard J. Wagner (Chairman), Ralph Bilger (Contact), Physikalisches Institut, Universitaet Tuebingen, D-72076 Tuebingen, phone: +49-7071-296304/296297, fax: +49-7071-296296, e-mail: "me_nu95@pit.physik.uni-tuebingen.de"].

"1995 Gordon Conference on Nuclear Physics" to be held July 24-28, 1995, at the Tilton School, Tilton, New Hampshire. The focus of this conference will be on electromagnetic physics, relativistic heavy ion collisions, and astrophysics. Travel and application information and a preliminary program is available on the worldwide web <http://nuclth.physics.wisc.edu/gordon/gordon.htm>. [For further information you can also contact: A.B. Balantekin, U. Wisconsin Physics Dept., 1150 University Avenue, Madison, WI 53706, phone: (608) 263-7931, fax: (608) 262-8628, e-mail: "baha@wisnud.physics.wisc.edu"].

"International Nuclear Physics Conference (INPC '95)" to be held 21-26 August 1995, in Beijing, China. [For further information

contact: Prof. Xu Jincheng (Secretary), China Institute of Atomic Energy, P. O. Box 275 (80), Beijing 102413, People's Republic of China, phone: 86-1-9357787, fax: 86-1-9357008, e-mail: "ciaednp@vxihep.ihep.cern.ch"].

"XIV Mazurian Lakes School of Physics: Topics in nuclear and high energy atomic physics, 1995" to be held 23 August-2 September 1995, in Piaski, Poland. [For further information contact: Ziemowid Sujkowski (Chairman), Soltan Institute for Nuclear Studies, PL-05-400 Swierk, Poland, e-mail: "p02zs@cx1.cyf.gov.pl", "sujkow@fuw.edu.pl" or Danka Chmielewska (Scientific Secretary), phone: 48-2-779-8627, fax: 48-2-779-3481, e-mail: "p02dc@cx1.cyf.gov.pl"].

"High angular momentum phenomena (Special workshop in honour of Zdzislaw Szymanski)" to be held 23-26 August 1995, in Piaski, Poland. [For further information contact: Ziemowid Sujkowski (Chairman), Soltan Institute for Nuclear Studies, PL-05-400 Swierk, Poland, e-mail: "p02zs@cx1.cyf.gov.pl", "sujkow@fuw.edu.pl", Witek Nazarewicz (Co-chairman), phone: (615) 574-4580, email: "witek@utkvx.utk.edu", or Danka Chmielewska (Scientific Secretary), phone: 48-2-779-8627, fax: 48-2-779-3481, e-mail: "p02dc@cx1.cyf.gov.pl"].

"7th International Conference on the Structure of Baryons", 3-7 October 1995, to be held in Santa Fe, New Mexico. [For further information contact: Lenora Alsbrook, Baryons '95 Conference Coordinator, Los Alamos National Laboratory, Protocol Office, MS P366, Los Alamos, NM 87545, phone: (505) 667-8449, fax: (505) 667-7530, e-mail: "baryons@lampf.lanl.gov"].

"XIX Nuclear Physics Symposium at Oaxtepec", 3-6 January 1996, to be held in Oaxtepec, Mexico. [For further information contact: Roelof Bijker, Instituto de Ciencias Nucleares UNAM, A. P. 70-543, 04510 Mexico DF, Mexico, fax:

(525) 616-2233, email:
"bijker@roxanne.nuclecu.unam.mx"].

"PANIC 96 - The XIV International Conference on Particles and Nuclei", to be held 22-28 May 1996, hosted by the College of William and Mary and CEBAF, to be held in historic Williamsburg, VA. [For further information contact: Conference Secretary, PANIC 96, CEBAF, 12000 Jefferson Avenue, Newport News, VA 23606, USA, phone: 804-249-7500, fax: 804-249-7363, e-mail: "panic@ceba.gov"].

"1996 Gordon Research Conference on Nuclear Chemistry", 16-21 June 1996, to be held in New London, New Hampshire, USA. [For further information contact: W. Trautmann, GSI Darmstadt, Postfach 110552, D-64220, Darmstadt, Germany, phone: +49-6151-359 2774, fax: +49-6151-359 2989, e-mail: "traut@vsbz.gsi.de"].

"Ray Spectroscopy and Related Topics", 8-12 October 1996, to be held in Budapest, Hungary. [For further information contact: G. Molnar, Nuclear Physics Department, Institute of Isotopes, POB77, H-1525 Budapest, Hungary, phone: 36-1-275-4347, fax: 36-1-275-4349, e-mail: "molnar@iserv.iki.kfki.hu"].