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**TO: Members of the Division of Nuclear Physics, APS**  
**FROM: Benjamin F. Gibson, LANL - Secretary-Treasurer, DNP**

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**ACCOMPANYING THIS NEWSLETTER:**

- A Bethe Prize Fund Donation Form
- 2-5 MAY APS/AAPT MEETING,  
INDIANAPOLIS, IN**
- A listing of the Symposia of the DNP, the invited speakers, and titles of their talks
- 2-5 OCTOBER DNP MEETING,  
CAMBRIDGE, MA**
- A nomination form for invited speakers
  - A pre-registration form which includes workshops and banquet
  - A housing form



**Future Deadlines**

- **1 Apr 1996** - APS Fellowship Nominations (See item 12).
- **10 May 1996** - Nomination forms for invited speakers for the Cambridge Fall Meeting (See item 10).
- **28 June 1996** - Contributed Abstracts for the Cambridge Fall Meeting (See item 10).

- **1 Sept 1996** - Nominations for 1996 Bonner Prize (See item 4).

**1. RESULTS OF ELECTION: OFFICERS AND EXECUTIVE COMMITTEE FOR 1996**

By the deadline date of 12 January 1996, 580 properly identified ballots were received for the election of officers and members of the Executive Committee. The results of the election are as follows: Stuart J. Freedman was elected as Vice-Chair and Benjamin F. Gibson was elected as Secretary-Treasurer for one year terms. Thomas J. Bowles, Cathleen E. Jones and Berndt Mueller were elected to two-year terms on the Executive Committee. The counting of the ballots was done by Tellers, Joe Carlson, Joe Ginocchio, and Peter Herczeg, and supervised by Rachel Taylor all of LANL. The members of the 1996 Executive Committee are as follows:

**Lee. L. Riedinger, Univ. of Tennessee,  
Chair (1996)**  
**J. Dirk Walecka, William & Mary and  
CEBAF, Past Chair (1996)**  
**Bunny C. Clark, OSU, Chair-Elect (1996)**  
**Stuart J. Freedman, UCB, Vice Chair  
(1996)**  
**Benjamin F. Gibson, LANL, Secretary-  
Treasurer**

(1996)

**John Schiffer, ANL, Divisional  
Councillor  
(December 1999)  
Peter Paul, SUNY at Stony Brook,  
Division**

**Councillor (December, 1997)  
Richard N. Boyd, OSU (1997)  
Barbara V. Jacak, LANL (1997)  
Joseph I. Kapusta, Univ. of Minnesota  
(1997)**

**Thomas J. Bowles, LANL (1998)  
Cathleen E. Jones, ANL (1998)  
Berndt Mueller, Duke (1998)**

## **2. COMMITTEES OF THE DNP**

The terms of some of the members of the following DNP committees expire in April 1996: Program, Fellowship, Nominating, Nuclear Science Resources, and "Physics News". Suggestions from the DNP membership for new members of these committees for 1996 are welcome and should be sent to Lee L. Riedinger. Members of these committees for 1996 will be listed in the May newsletter.

## **3. 1996 BONNER PRIZE WINNER**

Prof. J. Dirk Walecka of the College of William & Mary and CEBAF has been awarded the 1996 Tom W. Bonner Prize in Nuclear Physics. The citation reads as follows:

"For his preeminent theoretical guidance and inspirational leadership in exploiting electromagnetic and weak probes of the nucleus and for his fundamental contributions to the understanding of the nucleus as a relativistic quantum many-body system."

## **4. NOMINATIONS FOR 1997 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, Roy Middleton and W. Haeberli, R. M. Diamond and F. S. Stephens, B. L. Cohen, G. E. Brown, C. D. Goodman, H. A. Enge, E. G. Adelberger, L. M. Bollinger, B. Frois and I Sick, 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, F. Boehm, and J. D. Walecka.

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 July 1996** to: Prof. Michael J. Musolf, INT, Physics & Astronomy Bldg., Box 351550, University of Washington, Seattle, WA 98195.

## **5. 1996 DISSERTATION AWARD IN NUCLEAR PHYSICS**

Gregory Joseph Schmid has been selected as the recipient of the 1996 Dissertation Award in Nuclear Physics. Greg's thesis title was "Radiative Capture in the Energy Range  $E_p(\text{lab}) = 80\text{-}0$  keV". His thesis advisor at Duke University was Professor H. R. Weller. The citation reads:

"For an innovative study of the radiative capture of polarized protons by deuterons below 80 keV. The extraordinary care and persistence of his work and the depth of his involvement at all stages of the experiment and in the analysis have produced new insights into nuclear reactions at these very low energies. These results are important for our understanding of protostellar evolution and of the few nuclear system as well."

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.

## **6. NEW DNP FELLOWS**

The following DNP members are newly elected Fellows of the APS. The award certificates will be presented by the DNP Chair, Lee L. Riedinger, at the DNP Business Meeting. (See item 7.)

*Cyrus Baktash  
Martin D. Cooper  
Thomas M. Cormier  
Cary N. Davids  
John Jacob Domingo  
Geoffrey L. Greene  
Blayne Heckel  
Kirby Wayne Kemper  
James Paul Miller  
Paul Anthony Quin  
Wolf-Udo Schro der  
Paul Stoler  
Stephen A. Wender*

## **7. SPRING APS/AAPT MEETING, INDIANAPOLIS, IN, 2-5 MAY 1996**

The 1996 APS/AAPT Spring Meeting will be held 2-5 May 1996 in Indianapolis, IN, at the Indiana Convention Center. The Division of Nuclear Physics will organize five DNP sessions and six joint sessions of invited papers for the Spring meeting. Six speakers for two of these sessions were selected by vote of the Program Committee from nominations which were submitted to L.L. Riedinger by the 6 October deadline. Included in the voted sessions will be the Bonner Prize winner's talk and the Graduate Student Dissertation Prize winner's talk.

Speakers for three topical sessions were arranged by the Program Committee on topics selected at the Bloomington committee meeting. One session on "*Determining the Final Break-up Conditions in Nuclear Collisions*" is being organized by B. Tsang, J. Kapusta, T. Hemmick, and W. Zajc. Topics include "Probing the Nuclear Liquid-Gas Phase Transition", "Break-up Conditions for Low Density Matter", "Reconstructing the Final Stage of Heavy Ion Collisions at CERN and AGS", and "Particle Distributions and Correlations from 158AGeV/c

Pb+Pb Collisions". A second session on "*Neutrino Oscillations in the Laboratory*" is being organized by S. J. Freedman, J. Dubach, and K. Lesko. Topics include "Recent Results from LSND", "First Results from Nomad", "Long Base Line Studies with Reactors", and "The Atmospheric Neutrino Anomaly". The third session on "*Radioactive Beams and Exotic Nuclei*" is being organized by T-L. Khoo, M. Smith, and B. Tsang. Topics include "New Isotopes from Relativistic Fission of Uranium", "New Ground-State Proton Emitters", "Fusion/Evaporation Studies with Radioactive Ion Beams", "Physics with Trapped Radioactive Atoms", and possibly "Interpretation of Coulomb Dissociation".

In addition to the five DNP invited speaker sessions, the Program Committee is participating in the cooperative organization of six joint sessions with other APS subunits participating in the Spring APS/AAPT Meeting. A joint session with the Division of Particles and Fields on "*Structure of the Nucleon and Implications for RHIC*" is being co-organized by B. Jacak. A joint session with the Division of Physics of Beams on "*Challenges to Nuclear Physics Accelerators*" is being co-organized by P. Schwandt. A joint session with the Few Body Systems Topical Group on "*Recent Progress in Few-Body Physics*" is being co-organized by D. Beck. A joint session with the Division of Astrophysics on "*Stellar Explosions*" is being co-organized by M. Smith. A joint session with the Division of Computational Physics on "*Advances in Lattice Gauge Calculations*" is being co-organized by M. Strayer. A joint session with the Forum on Industrial and Applied Physics on "*Nuclear Imaging Techniques*" is being co-organized by U. Garg. A joint session with the Precision Measurements and Fundamental Constants Topical Group, which is co-organized by E. Adeleberger, has evolved into two focused sessions.

"Mini-Symposia" at the Spring Meeting

The Division of Nuclear Physics is organizing for the first time "mini-symposia" at

the Spring Meeting in Indianapolis. There will be three such sessions, on the topics of "*Super and hyper deformation in nuclei*", "*Tests of fundamental symmetries at low energies I: parity violations*", and "*Tests of fundamental symmetries at low energies II: time reversal violations*". The latter two are being organized jointly with the Precision Measurements and Fundamental Constants Topical Group. Each mini-symposia will include one invited talk giving an overview of the topic and then contributed papers. The times, locations, and titles of these sessions along with the invited speakers and the titles of their talks are listed at the end of this newsletter.

The DNP contributed abstracts for the Spring meeting were arranged into sessions by: S. Wallace, J. Kelly, and W. Melnitchouk (University of MD). We gratefully acknowledge their service. The entire program can be found from the APS homepage <http://aps.org>.

The Business Meeting of the DNP is scheduled for 17:30, Saturday, 4 May 1996 in the 500 Ballroom of the Convention Center following Session L1. The current agenda includes:

- A. 1995 Bonner Prize Congratulations
- B. Fellowship Awards
- C. New Officers and Executive Committee
- D. New Program Committee
- E. Invited Sessions for the DNP Fall Meeting in  
Bloomington
- F. Budget Updates and Other Matters;  
Reports and  
Discussions with DOE and NSF  
Representatives
- G. Report from the NSAC Chair

## **8. DIVISIONAL COLLOQUIA FOR THE APS/AAPT SPRING MEETING AT INDIANAPOLIS, IN, 2-5 MAY 1996**

*Divisional Colloquia on Nuclear and Particle Astrophysics* are sponsored by The Division of Astrophysics, The Division of

Nuclear Physics, and The Division of Particles and Fields of the APS

These special colloquia on topics in nuclear and particle astrophysics will be held on Thursday evening, May 2, 1996, during the Indianapolis Spring Meeting of the American Physical Society. They are intended to provide an introduction to three important issues in nuclear and particle astrophysics: big bang nucleosynthesis and the dark matter problem, the solar neutrino puzzle, and the microwave background as a probe of cosmological models. The lectures will be presented in the style and at the level of typical department colloquia. Thus they are intended for a general audience, including younger researchers and those who are not experts in this research area. The colloquia is free to those registered for the Spring APS/AAPT Meeting: please urge your students to take part. The speakers, David Schramm, Hamish Robertson, and Paul Steinhardt, are well known for their clarity and enthusiasm.

The program is as follows:

David Schramm University of Chicago

*"Shadows of Creation: The Dark Matter of the Universe"*

This talk will explore the key problems in physical cosmology today, namely the nature of the dark matter and its relation to the age of the universe and the origin of cosmic structure. The new results tightening up the need for exotic, non-baryonic, dark matter will be discussed, including the new extra galactic Keck Telescope deuterium measurements and the MACHO microlensing results. The next generation microwave background experiments will be discussed along with the current status of the age arguments.

Hamish Robertson University of Washington

*"The Problem of the Missing Solar Neutrinos"*

Recent results from Kamiokande, SAGE, and GALLEX, when combined with the Homestake

measurements, indicate a pattern of solar neutrino fluxes that is inconsistent with the predictions of reasonable solar models. This situation and plausible particle physics solutions will be reviewed. Two new detectors that will hopefully resolve this puzzle, SNO and SuperKamiokande, are now nearing completion. A summary will be given of the important physics expected from these experiments.

Paul Steinhardt University of Pennsylvania

*"Imaging the Early Universe"*

This colloquium will explore how measurements of cosmic background radiation over the next decade will provide a snapshot of the early Universe. The results will allow us to test the cosmological models that have been advanced to explain the origin and evolution of galaxies and large-scale structure.

## **9. LISS USERS GROUP WORKSHOP ANNOUNCEMENT**

The Indiana University Cyclotron Facility is planning the first LISS Users Group Workshop to be held at the Hyatt Regency Hotel in Indianapolis on Wednesday, May 1 (immediately preceding the spring APS meeting). A draft of the initial physics program now exists and the primary work remaining to be done is to determine specifications for the first phase of experimental equipment needed to carry out this program. The format of the meeting will include a plenary session summarizing the LISS program and accelerator design. Parallel sessions will be held to form working groups that begin to address the best mix of experimental equipment needed to pursue the physics goals. The meeting will start at 1:00 p.m. and will include a buffet dinner. For more information please contact Ms. Sharon Herzel at (812) 855-9365 or send e-mail inquiries to [LISS@iucf.indiana.edu](mailto:LISS@iucf.indiana.edu).

## **10. 1996 APS DIVISION OF NUCLEAR PHYSICS FALL MEETING, CAMBRIDGE, MASSACHUSETTS 2-5 OCTOBER 1996**

The Annual Fall Meeting of the APS Division of Nuclear Physics, including two workshops, will be held 2-5 October 1996 on the campus of the Massachusetts Institute of Technology, Cambridge, Massachusetts. The meeting will follow the usual APS format, with invited and contributed sessions. In addition there will be an opportunity for poster presentation of papers for those who prefer. An invited speaker nomination form is enclosed.

The Boston/Cambridge area has something for everyone with its history, cultural events, sports, nightlife, and fine ethnic restaurants. Early October is generally the height of the fall foliage season and daytime temperatures are typically between 50° and 70°F.

Two workshops will be held on 2 October prior to, but in conjunction with, the DNP meeting. One workshop will be on The Quark/Gluon Structure of the Nucleon, organized by John Negele and Richard Milner, and the second workshop will be on Collective Effects in Heavy Ion Collisions, organized by Craig Ogilvie and Stephen Steadman. The workshops will be held in parallel.

A tour of the Bates Linear Accelerator Center will be held on Thursday, October 3, 1996 and, in place of a more formal banquet, a dinner cruise of Boston Harbor is planned for Friday, October 4, 1996.

The host hotel is the Cambridge Center Marriott, located within walking distance of the MIT campus. Rooms at a number of other hotels will be available as well. Roommate matching will be provided for those who wish it.

### Local Organizing Committee

William Bertozzi, MIT  
Edward Booth, Boston University  
Heidi Demers, MIT

T. William Donnelly, MIT  
Jean Flanagan, MIT  
Jochen Heisenberg, University of New Hampshire  
Stanley Kowalski, MIT  
June Matthews, MIT  
Richard Milner, MIT  
Rory Miskimen, University of Massachusetts  
John Negele, MIT  
Craig Ogilvie, MIT  
Robert Redwine, MIT  
Stephen Steadman, MIT

### Registration and Housing

Heidi Demers  
MIT Laboratory for Nuclear Science  
Bldg. 26-505  
77 Massachusetts Ave.  
Cambridge, MA 01139  
Tel: (617) 258-5448  
Fax: (617) 253-0111  
email: [lnsdnp@mitlns.mit.edu](mailto:lnsdnp@mitlns.mit.edu)

The meeting ID is to be DNP96. The WWW page may be viewed at: <http://www-lns.mit.edu/dnp.html>. The deadline for (electronic) submission of abstracts is June 28, 1996.

## **11. REPORT ON BLOOMINGTON EDUCATION WORKSHOP, J. J. Szymanski**

A workshop entitled "Graduate Education in Nuclear Physics: Changing Goals for Changing Times" was held Wednesday, October 25 to discuss the future of graduate education in nuclear physics. This workshop brought together physicists from teaching-oriented institutions, research universities and several industrial organizations. Most, but not all, participants had a background in nuclear physics.

The workshop began with a presentation by Karl Erb from the NSF, who spoke about the view from Washington regarding the future of basic research in our changing economy. Karl's talk was followed by speaker/panelists from

various organizations, who provided views of the positive and negative aspects of a graduate education in nuclear physics. Bob Redwine of MIT summarized employment statistics gathered during the recent NSAC/DNP long-range plan. He also spoke about steps MIT is taking to improve their graduate program. Brian Bunker, a graduate student from Illinois, Urbana-Champaign, then spoke about a graduate student organization at Illinois that deals with employment issues. One point emphasized by Brian was that the talent pool is excellent in physics but that we face a problem of 'marketing' our skills. Mike Cherney spoke next about the programs which Creighton has developed at the undergraduate and masters levels.

These three speakers, who are involved with traditional nuclear physics occupations, were followed by four speakers from fields related to nuclear physics. The first up was Paul DeLuca, from Wisconsin-Madison, who spoke on exciting developments in medical physics and the applicability of a nuclear physics education to such problems. Bryant Hichwa of Optical Coatings Laboratory followed with a presentation on the skills needed by employees of a small, innovative high-tech company. Kristina Isakovich of McKinsey and Company spoke on the training sought by her management consulting firm. The morning session closed with a talk by Randall Ledford of Texas Instruments speaking on his view of the present world-competitive economy and related government policy.

The workshop then broke into the following discussion groups over Lunch: 1) Alternate minors and expanding experiences; lead by June Matthews with recorder Todd Peterson. 2) Matching training with employment opportunities; lead by Matt Richter with recorder Alice Hawthorne. 3) Where are the jobs? - Networking; lead by Gerry Crawley with recorder Bill Franklin. 4) The role of the funding agencies in making it work; lead by Brad Keister with recorder Andy DeZarn. 5) Training in teaching - How much? What type?; lead by Leonard Jossem with recorder Kieffer Warman.

After lunch, George Walker, Vice President for Research and Dean of the Graduate School at Indiana University, spoke on the recent report by the Committee on Science and Engineering and Public Policy. Working group discussions then continued. The final workshop session was devoted to hearing reports by the five working groups, followed by an open discussion.

## **12. 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 Peggye 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.

The 1996 DNP Fellowship Committee is comprised of J.D. Walecka (Chair), J. Hamilton, S. J. Freedman and B. Mueller. 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 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.

### **13. APS BETHE PRIZE, W.C. Haxton and E.M. 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+, the level required to keep the prize self-sustaining, prior to Hans' 90th birthday, July 2, 1996. Contributions from laboratories, industry, and over 200 individuals now total about \$60,000. A list of DNP donors is included in this newsletter.

The Bethe Prize effort was inspired by an address given by Hans at a recent 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. The Divisions will work together in selecting the recipients, with the role of "lead Division" alternating. We ask each member of the two Divisions to consider supporting this effort.

You will find enclosed in this newsletter a donation form that can be mailed to the DNP Secretary/Treasurer Ben Gibson. 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.

### **14. DNP MEMBERSHIP NEWS**

The FY96 membership is now 2506 or 6.13% of the APS membership. This is just above the 6% requirement that entitles the DNP to two Division Councilors. Of these 2506, 114 were new APS/DNP members and 102 were renewing APS members who joined the DNP. We lost 220 APS members who renewed their APS membership but not their DNP membership, and 160 previous DNP members did not renew their APS affiliation in any form.

The DNP membership reached a peak of 2896 in FY93 and has steadily declined since then at between 100 and 150 per year. The percentage of the APS membership has declined less drastically, as the APS membership has fallen from a peak of more than 43,000 to just 40,857 in FY96.

The participation of DNP members in the fall meeting has risen to almost 1/4 of the DNP membership. The number of contributed paper sessions is approximately the same at the fall and spring meetings. Participation in the contributed paper sessions at either provides a significant opportunity to learn what your friends and colleagues are up to and, most importantly, to let them know what you and your students are doing. Electronic abstract submission now makes that even easier, as the LaTeX template guides you through the preparation. Electronic submission saves the cost of FedEx delivery to beat the deadline.

### **15. FUTURE DNP FALL MEETINGS**

The present schedule for fall meetings is as follows:

1996	October 2-5 Cambridge, MA
1997	October 5-8 Vancouver, B.C.  (Chateau Whistler)
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.

## 16. FAR OUT MEETING INFORMATION

Look ahead to the 1997 APS spring meeting, which returns to Washington, DC. This will be a Friday through Monday meeting, a joint endeavor involving both the Canadian and Mexican Physical Societies.

The 1999 Centennial celebration will be held 20-26 March in Atlanta. The first two days will be devoted to formal celebrations. The 22-26 March dates will correspond to an annual spring meeting. The year long centenary celebration will begin in the fall of 1998 and continue until the summer of 1999. The APS will produce a "wall chart" for the Centennial. Ideas for important events to include from this century are solicited.

## 17. EMAIL ADDRESS INFORMATION REQUESTED

The APS membership directory is now online through the APS Web site (<http://aps.org>). Check your own address information -- name of the service (directory) and the password (F=ma) are case sensitive.

Most importantly, update your email address. Of the 2506 DNP members, only 1969 have registered their email addresses in the APS directory database. Despite being the most computer literate authors -- some 80% of the submissions to Phys. Rev. C are compuscripts -- DNP members do not outshine their fellow APS members in registering their email addresses.

Membership information can be updated by sending an email message to "membership@aps.org" or directly on the Web.

## 18. BUDGET UPDATE FROM THE NUCLEAR SCIENCE RESOURCES COMMITTEE, L.L. Riedinger, Chair

The budget process continues in an extraordinary amount of confusion. The FY96 appropriations bills for parts of nine departments and various agencies have yet to be passed, and operations are continuing on the basis of short-term funding bills. At the same time, we await the FY97 budget proposal from the Clinton Administration. This was sketched in very broad terms (20 pages for all federal operations) and submitted to the Congress on February 5th, with a detailed budget promised by the week of March 18th. Without a major budget compromise between the legislative and executive branches of the federal government, the impasse over certain funding bills (FY96 and 97) and the resort to continuing resolutions may last until the fall elections.

The Department of Energy is one agency for which an FY96 appropriations bill has been signed into law. The DOE Energy and Water Development Appropriations bill was signed on November 31, 1995; this includes funding for

nuclear and high-energy physics. As reported in the last DNP newsletter, Congress reduced the nuclear physics budget by 5.2% compared to the request (\$321.1M), resulting in \$304.5M for FY96, compared to the FY95 appropriation of \$331.5M. This is a very worrisome decrease at a time when the community has adopted a new Long Range Plan that requires a higher budget to operate CEBAF, RHIC, and the smaller facilities in our field. At this time the intended request for FY97 is not known, but is not expected to differ much from current levels.

An FY96 appropriations bill has not been passed for the National Science Foundation. House Resolution 2099 contains \$80.3B to fund NSF (\$3180M), NASA, the Veterans Administration, EPA, and HUD. This bill has not been passed and signed, because of major disagreements between the White House and the Congress over some aspects of funding for veterans, EPA, and a few other programs (neither the NSF nor NASA). The Clinton administration would like additions of roughly \$1.6B to this bill for these disputed programs. The budget for the NSF in this bill is 5.4% less than the request and 1.5% less than the FY95 appropriation of \$3229M. Because H.R. 2099 has not become law, there have been short-term funding bills passed at FY95 level, the most recent extending operations until March 15th. The result is tremendous uncertainty within the foundation about the funding of grant proposals, which has been made worse by the two federal worker furloughs that hampered operations.

The funding picture is not a bright one at this time. The recent FYI #21 article (from the APS) describes a feeling that the Congress will wrap all four pending appropriations bills into one bill to cover the rest of FY96, and do this before the March 15 expiration of the current short term bill. That would settle the 1996 picture and allow Congress to get on with FY97 appropriations, which will have less dollars to distribute than the current year.

## **19. JAPAN HADRON PROJECT, T. Fukuda**

A Workshop on "Physics with 50 GeV PS" was held on Dec. 14-16, 1995, at the INS in Tokyo. The workshop was organized by "The Committee for the Hadron Accelerator at the 21st Century", which is a subcommittee of the Nuclear Physics Association in Japan, and was supported by INS, KEK, Inoue Foundation for Science and the Association for Promotion of Accelerator Science. Forty-one scientists from abroad (19 USA, 4 Canada, 4 Germany, 3 Korea, 3 India, 2 China, 1 The Netherlands, 1 Russia, 1 Switzerland, 1 France, 1 Italy) and more than 80 Japanese attended. Proceedings will be published by the INS.

The meeting opened with presentations about the general aspects of the JHP (Japan Hadron Project) and about the accelerator details and a Key Note address by W. Weise. On the afternoon of Dec. 14th nuclear physics with strangeness was discussed extensively. On Dec. 15th long-baseline neutrino experiments, physics with primary beams (mainly with 20 GeV/N heavy ions), rare K-decay physics, and physics with p-bar beams were discussed. On Dec. 16th, a panel of foreign and Japanese scientists discussed numerous aspects of international collaboration at the JHP. The workshop was very fruitful. The enthusiasm expressed by participants from abroad and within Japan was particularly encouraging. A budget request will soon be forthcoming.

The next workshop will be held just before or after the 25th INS Symposium on Nuclear and Particle Physics with High-Intensity Proton Accelerators, which is scheduled for Dec. 3-6, 1996, at the INS. The INS Symposium will cover all of the physics to be addressed with the JHP: the K, E, M and N arenas. Hence, the workshop will be more focussed on the physics of the 50 GeV PS (although it may include nuclear and particle physics with muons at the 3 GeV Booster). Another small workshop covering primarily accelerator physics may be organized during the summer.

## 20. FUTURE PROGRAMS OF THE INSTITUTE FOR NUCLEAR THEORY

The Institute for Nuclear Theory recently scheduled the following programs for 1997:

### "Tunneling in Complex Systems"

Feb. 24 - May 30, 1997

Organizers: Steve Tomsovic

(tomsovic@wsu.edu)

Oriol Bohigas

(bohigas@frcpn11.in2p3.fr)

A. J. Leggett

(tony@cromwell.physics.uiuc.edu)

### "Nuclear Structure Studies with Electrons"

June 30 - Aug. 29, 1997

Organizers: T. W. Donnelly

(donnelly@mitlns.mit.edu)

Ingo Sick (sick@urz.unibas.ch) J. D.

Walecka

(walecka@cebaf.gov)

### "Numerical Methods for Strongly Interacting Quantum Systems"

Sept. 29 - Dec. 12, 1997

Organizers: Joseph Carlson

(carlson@qmc.lanl.gov)

Robert Wiringa

(wiringa@theory.phy.anl.gov)

The 1996 program with space remaining is:

### "Ultrarelativistic Nuclei: From Structure Functions to the Quark Gluon Plasma"

Sept. 16 - Dec. 6, 1996

Organizers: Larry McLerran

(mclerran@physics.spa.umn.edu)

Miklos Gyulassy

(gyulassy@nti.phys.columbia.edu)

The INT will also sponsor a "summer school in nuclear physics" June 10-21. The school is intended for advanced graduate students and beginning postdoctoral researchers in either theory or experiment. Scholarships covering local expenses are available. Please contact

summer@phys.washington.edu or the organizer, George Bertsch, for more information.

The "1996 CEBAF/INT Workshop" will be held Sept. 9-13 in Seattle. Organized by Harry Lee and Winston Roberts, it will focus on N\* physics at CEBAF.

The INT's National Advisory Committee reviews program proposals and makes recommendations on their scheduling. NAC members serve three year terms, with new members selected by the continuing members, subject to the approval of the Director of the Division of Nuclear Physics, DOE. The NAC chairman, Jim Friar, welcomes nominations of new members from the nuclear physics community.

## 21. THE DNP BROCHURE, "NUCLEAR PHYSICS: BASIC RESEARCH SERVING SOCIETY", G.M. Crawley

The DNP Brochure was completed by the time of the DNP Fall Meeting 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 Meeting. One copy was distributed to each DNP member. Overall about 7000 copies have been distributed. 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. We will continue to distribute the remaining copies as they are requested and will produce a second printing. 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.

## **22. NSAC REPORT, H. Robertson**

"Nuclear Science: A Long Range Plan" is now complete, has been endorsed by NSAC, and has been sent to the printers. After more than a year's intense effort on the part of the 64-person NSAC Working Group, a fine document outlining the community's intentions for the field has been prepared. Our thanks go especially to Ernie Moniz, the outgoing Chair of NSAC, for drafting the Plan, to Peter Bond for putting it together, and to the national labs and universities that hosted Town Meetings and NSAC meetings. The document will be distributed widely and will also be available on the Web at a URL to be determined.

The next NSAC meeting will be held May 1, 1996, 6:00 pm to 10:00 pm, in conjunction with the Indianapolis meeting. The consequences of the President's Budget for 1997 will clearly be a major topic; a tentative agenda will be released before the meeting.

## **23. ANNOUNCEMENT OF FALL 1996 TARGET DATES FOR PROPOSAL SUBMISSIONS TO THE DIVISION OF PHYSICS OF THE NSF, V. R. Brown**

In order to improve the Division's management of proposals, and to allow us, where appropriate, to employ disciplinary panels in the merit review process, the Division of Physics will use target dates for proposal submissions for disciplinary research activities competing for FY 1997 funds (FY 1997 begins on October 1, 1996).

The two target dates of interest to DNP members are:

1. Tuesday, October 8 for proposals concerning: Theoretical Physics Special Programs and Conferences

2. Tuesday, November 12 for proposals concerning: Experimental Nuclear Physics

Proposals which miss the target dates will be handled as time permits. Priority will be given to proposals arriving on or before the above target dates.

The above dates do not apply to proposals sent to the Physics Division in response to Foundation-wide solicitations such as the Faculty Early Career Development (CAREER) or Research Experiences for Undergraduates sites (REU). These programs have specified target or deadline dates contained in their program announcements.

More information can be obtained on the NSF web pages "<http://www.nsf.gov/>".

## **24. FEW-BODY SYSTEMS - ELECTRONIC VERSION ON THE INTERNET, W. Plessas**

The journal FEW-BODY SYSTEMS was launched on the Internet in the beginning of 1995. Starting with issue 18/1, almost 2 volumes are accessible on-line. The electronic version of FEW-BODY SYSTEMS is a 1:1 image of the printed journal. FEW-BODY SYSTEMS Electronic can be accessed with various Internet tools, such as World-Wide Web, WAIS, Gopher and the like. However, it performs best with the new networked hypermedia tool Hyper-G. This supports many advanced features, such as:

- \* full search functions (user-definable);
- \* implementing graphics, colour images, video, sound;
- \* integrated viewers for text, image, film, audio, PostScript, 3D, (including hyperlinks);
- \* hyperlinks in all kinds of documents (specifically also in PostScript documents);
- \* navigation control through session manager (3D information landscape at user's choice);

\* configurable user client.

Hyper-G thus supersedes previous Internet tools as it allows one to "use", rather than merely read or print, the articles in FEW-BODY SYSTEMS Electronic and similar journals. Users have at their disposal, e.g.:

\* downloading all kind of electronic files;

\* clicking anchors to follow (bi-directional) links to certain equations, tables, figures, references, related documents, annotations to subsequent articles (comments, errata);

\* immediate on-line access to electronic back issues, fully searchable subject and author indexes, etc.

In order to take full advantage of all features of FEW-BODY SYSTEMS Electronic one must install a Hyper-G client on one's own computer. Hyper-G clients are presently available for UNIX and PC/Windows. They are called "Harmony" and "Amadeus", respectively. Soon there will also be a client for Macintosh. One may get the appropriate Hyper-G client for free from the directory /pub/Hyper-G via anonymous ftp to "iicm.tu-graz.ac.at". Installation instructions are obtainable there too. With one's own Hyper-G client installed, connect to the Hyper-G server "fbs.kfunigraz.ac.at", advance to the collection "fbs", and find the home page of FEW-BODY SYSTEMS Electronic. As said above, FEW-BODY SYSTEMS Electronic can also be accessed from the WWW and, with less comfort, with Gopher etc. In these cases, connect to the WWW: <http://fbs.kfunigraz.ac.at/Cfbs> or to Gopher: <fbs.kfunigraz.ac.at>.

Free access to (all features of) FEW-BODY SYSTEMS Electronic, 24 hours a day, will be allowed during an initial test phase, tentatively till the end of 1995. Later a subscription to the printed version will be required to get a full access license. Springer offers an individual half-price subscription (about US \$ 300 for 8 issues per year) for all members of the APS. Corresponding orders can be made through Springer-Verlag New York Inc., 175 Fifth Avenue, New York, NY 10010, tel.: 800-Springer (toll free), fax: 201 348 4505, email:

[orders@springer-ny.com](mailto:orders@springer-ny.com), <http://www.springer-ny.com/ordernew.html>. The editors of FEW-BODY SYSTEMS would appreciate receiving comments and suggestions by email to "[fbse@edvz.kfunigraz.ac.at](mailto:fbse@edvz.kfunigraz.ac.at)".

## 25. 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, Benjamin F. Gibson, Los Alamos National Laboratory, P. O. Box 1663, T 5, MS B283, Los Alamos, NM 87545.

**1995-96 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 (Dec. 1994) 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.

## 26. FUTURE CONFERENCES

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

**"International Workshop On Future Prospects of Baryon Instability Search in p-decay and n-nbar Oscillation Experiments"**, 28-30 March 1996  
Sponsored by the Oak Ridge National Laboratory and the University of Tennessee, to be held in Oak Ridge, Tennessee,

**"PANIC 96 - The XIV International Conference on**

**Particles and Nuclei"**, 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@cebaf.gov"].

**"Fourth International Conference on Radioactive**

**Nuclear Beams"**, 3-7 June 1996, Omiya, Japan.

Hosted by the Institute of Physical and Chemical Research (RIKEN) and the Institute for Nuclear Study (INS). [For further information contact RNB-4 Conference Secretary, FAX: 81-484-62-4689, Phone: 81-484-62-1111 ext 4211, E-MAIL: RNB4@rikvax.riken.go.jp, WWW: <http://www.riken.go.jp>]

**"1996 Gordon Research Conference on Photonuclear**

**Reactions"**, 28 July-2 August, 1996, Tilton, NH.

[For further information contact: Alan Nathan, 1110 W. Green Street, Urbana, IL 61801 USA, phone: 217-333-0965, fax: 217-333-1215, email: "a-nathan@uiuc.edu", www: <http://www.npl.uiuc.edu/gordon>]

**"1996 Gordon Research Conference on the Dynamics**

**of Small Systems"**, 11-16 August 1996, Proctor Academy, Andover, NH.

[For further information contact: Stephen Berry; berry@rainbow.uchicago.edu; application forms from grc@grcmail.grc.uri.edu]

**"Gull Lake Conference on Nuclear Physics Near The**

**Drip Lines"**, August 21-24, 1996, Gull Lake, MI.

Organizer: Michael Thoennessen. Contact: Shari Conroy, NSCL, MSU, East Lansing, MI, 48824,

phone: (517) 333-6333, fax: (517) 353-5967,

email via internet:

CONROY@NSCL.MSU.EDU or the world wide web [http://www.nscl.msu.edu/nscl/conferences/gull\\_96.html](http://www.nscl.msu.edu/nscl/conferences/gull_96.html).

**"9th International Symposium on Capture Gamma-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"].

**"Sixth International Conference on Nucleus-Nucleus Collisions"**, 2-6 June

1997, Park Vista Hotel, Gatlinburg, TN.

Co-hosted by the Physics Division, Oak Ridge National Laboratory and the National Superconducting Cyclotron Laboratory, Michigan State University. [For further information please contact: Ms. Ann M. McCoy, Conference Secretary, Mail Stop 6368, Oak Ridge National Laboratory, Oak Ridge, TN 37831-6368, email: nn97@mail.phy.ornl.gov]

APS/AAPT Meeting — Indianapolis, IN  
2-5 May 1996

SYMPOSIA OF THE DNP  
Indianapolis Convention Center

08:00 THURSDAY, 500 BALLROOM

(DNP/DPF) A1. STRUCTURE OF THE NUCLEON AND IMPLICATIONS FOR RHIC, B. JACAK, PRESIDING.

E. Hughes (Caltech), "Studying Nucleon Spin Structure".

G. Sterman (SUNY, Stony Brook), "Gluon Resummation and Coherence in the Proton".

M. Gyulassy (Columbia Univ.), "The Gluon Structure of Nuclei ...".

G. Young (ORNL), "Experimental Approach to RHIC Physics".

11:00 THURSDAY, 500 BALLROOM (DNP)

B1. NEUTRINO OSCILLATIONS IN THE LABORATORY, K. LESKO, PRESIDING.

Fred Federspiel (LANL), "Neutrino Oscillations at LAMPF".

R.I. Steinberg (Drexel Univ.), "CHOOZ - A High Sensitivity Reactor Neutrino Oscillation Experiment".

M. Goodman (ANL), "Results from Soudan 2".

P. Astier (LPNHE), "Status Report on The NOMAD Experiment at CERN".

O.G. Ryazhskaya (INR of the RAS) Marshak Lecture: "Hadron and Other Secondaries Underground".

11:00 THURSDAY, 104 (DNP) B10, DNP

MINI-SYMPOSIUM: SUPER AND HYPER DEFORMATION, U. GARG, PRESIDING.

R.V.F. Janssens (ANL) "Very Deformed Nuclei: What Have We Learned From Gammasphere?".

14:30 THURSDAY, 500 BALLROOM (DNP)

C1. TOPICS IN HIGH ENERGY

NUCLEAR PHYSICS, W.A. ZAJC, PRESIDING.

C. Brown (Fermilab), "Recent Progress in Dimuon Production in P-A Interaction".

C.M. Ko (Texas A&M), "Low-Mass Dileptons from Heavy-Ion Collisions".

V. Viola (Indiana Univ.), " $\Delta$ -Enhanced Multifragmentation".

C.A. Whitten Jr. (UCLA), "New SMC Measurements of the Spin Structure of the Deuteron".

14:30 THURSDAY, 107/108 (DNP) C2.

NUCLEAR IMAGING TECHNIQUES, S. MAJEWSKI, PRESIDING.

S.R. Cherry (UCLA), "Instrumentation for Positron Emission Tomography: Past, Present, and Future"

R.R. Price (Vanderbilt Univ.), "Advances in Magnetic Resonance Imaging"

I.N. Weinberg, (NIH), "Optimizing Imaging Instrumentation for Gamma Emission Mammography"

L.E. Antonuk (Univ. of Michigan), Digital X-ray Imaging with Active Matrix, Flat-Panel Imagers"

19:30 THURSDAY, 500 BALLROOM

(DAP/DNP/DPF) D1. DIVISIONAL COLLOQUIA ON NUCLEAR AND PARTICLE ASTROPHYSICS, W.C. HAXTON, PRESIDING.

D.N. Schramm (Univ. of Chicago), "Shadows of Creation: The Dark Matter of the Universe".

R.G.H. Robertson (Univ. of Washington), "The Problem of the Missing Solar Neutrinos".

P.J. Steinhardt (Univ. of Pennsylvania), "Imaging the Early Universe".

08:00 FRIDAY, 500 BALLROOM (DNP) E1.

DETERMINING THE FINAL BREAK UP

CONDITIONS IN NUCLEAR

COLLISIONS, B. TSANG, PRESIDING.

- J. Pochodzalla (GSI), "Probing the Nuclear Liquid-Gas Phase Transition".  
W.A. Friedman (Univ. of Wisconsin), "Break-up Conditions for Low Density Matter".  
S. Pratt (NSCL, MSU), "Reconstructing the Final Stage of Heavy Ion Collisions at CERN and AGS".  
N. Xu (LANL), "Particle Distributions and Correlations from 158A. GeV/c Pb+Pb Collisions".

08:00 FRIDAY, 104 (DNP) E10. DNP MINI-SYMPOSIUM: TESTS OF FUNDAMENTAL SYMMETRIES AT LOW ENERGIES I: PARITY, S. LAMOREAUX, PRESIDING

- S. Freedman (UCB) "Tests of Fundamental Symmetries at Low Energies - Parity".

11:00 FRIDAY, SAGAMORE BALLROOM 6 (DAP/DNP) F4. THE PHYSICS OF NOVAE AND SUPERNOVAE, A. CHAMPAGNE, PRESIDING.

- R. Kirshner (Harvard Univ.), "Measuring the Universe with Supernovae".  
S.W. Bruenn (Florida Atlantic Univ.), "The Type II Supernova Mechanism".  
S. Starfield (Arizona State Univ.), "The Physics of Nova Explosions".  
M. Wiescher (Univ. of Notre Dame), "Trigger Reactions and the Endpoints of the rp Process: ...".

14:00 FRIDAY, 500 BALLROOM G1. RADIOACTIVE BEAMS AND EXOTIC NUCLEI, H. ESBENSEN, PRESIDING.

- C.N. Davids (ANL), "New Heavy Proton Emitters - Probing Nuclear Structure at the Drip Line".  
M. Huyse (Catholic Univ. of Leuven), "Accelerated Radioactive Elements for Nuclear, Astrophysical and Solid State Studies: ...".  
G. Savard (Chalk River), "Physics with Trapped Radioactive Ions".

- M. Bernas (IPN-Orsay), "Production of Over 100 New Isotopes from Fission of Uranium at Relativistic Energies".

20:00 FRIDAY, 500 BALLROOM (DA/DNP)

I1. W.A. FOWLER MEMORIAL SESSION, B. WAGONER, PRESIDING

- R.V. Wagoner (Stanford Univ.), "Opening Remarks by Chair".  
C.A. Barnes (Caltech) "Experimental Nuclear Astrophysics".  
J. Bahcall, (Princeton Univ.) "Solar Neutrinos".  
S.E. Woosley (UCSC), "Supernovae and Nucleosynthesis".  
G.M. Fuller (UCSD), "New Developments in Primordial Nucleosynthesis".

08:00 SATURDAY, 500 BALLROOM (DNP)

J1. LATTICE GAUGE THEORY, M. CREUTZ, PRESIDING.

- K.F. Liu (Univ. of Kentucky), "Nucleon Structure from Lattice QCD"  
U.J. Wiese (MIT), "Perfect Actions and Operators for Lattice QCD".  
T. Blum (BNL), "The QCD Equation of State from the Lattice".  
R.V. Gavai (Univ. of Minnesota), "Hot Lattice QCD: Nature of Phases and Phase Transitions".

08:00 SATURDAY, 104 (DNP) J10. DNP MINI-SYMPOSIUM: TESTS OF FUNDAMENTAL SYMMETRIES OF LOW ENERGIES II: TIME REVERSAL, S. FREEDMAN, PRESIDING.

- S. Lamoreaux (Univ. of Wash.) "Tests of Fundamental Symmetries at Low Energies - Time Reversal".

11:00 SATURDAY, 500 BALLROOM (DNP/FBSTG) K1. NEW DEVELOPMENTS IN FEW-BODY PHYSICS, D. BECK, PRESIDING.

- J.L. Friar (LANL), "Chiral Symmetry in Nuclei".  
R. Schiavilla (CEBAF), "Tensor Correlations and Short-Range Structure in Nuclei".  
A. Kuppermann (CIT), "The Geometric Phase in Quantum Reaction Dynamics".

E.J. Heller (Harvard Univ.), "Recent Progress in Semiclassical Approximations to Chaotic Systems".

14:30 SATURDAY, 500 BALLROOM (DNP)

L1. BONNER PRIZE AND  
DISSERTATION AWARD; TOPICS IN  
LOW ENERGY NUCLEAR PHYSICS,  
L.L. RIEDINGER, PRESIDING.

G.J. Schmid (LBL) "Radiative Capture of Polarized Protons by Deuterium in the Energy Range  $E_p < 80$  keV".

J.D. Walecka (Wm. & Mary & CEBAF)  
"Electron Scattering".

H.R. Weller (Duke Univ. & TUNL), "Polarized Radiative Capture Reactions Below 100 keV - a New Laboratory for Nuclear Physics".

V. Zelevinsky (MSU), "The Nuclear Shell Model as a Testing Ground for Quantum Chaos".

17:30 SATURDAY, 500 BALLROOM DNP  
BUSINESS MEETING.

08:00 SUNDAY, 109/110 (DNP/DPB) M3.  
NEW ACCELERATOR FACILITIES FOR  
NUCLEAR PHYSICS: OPPORTUNITIES  
AND CHALLENGES, M.K. CRADDOCK,  
PRESIDING.

P. Schwandt (Indiana Univ.), "LISS: A 20 GeV Synchrotron for Spin Physics at IUCF".

J.A. Nolen (ANL), "Future Plans for Radioactive Beams at ATLAS".

F. Marti (NSCL, MSU), "The Coupled Cyclotron Fragmentation Facility at MSU".

D.K. Olsen (ORNL), "The Oak Ridge HRIBF and Beyond".

P.W. Schmor (TRIUMF), "ISAC: The High-Intensity Radioactive Beam Facility at TRIUMF".