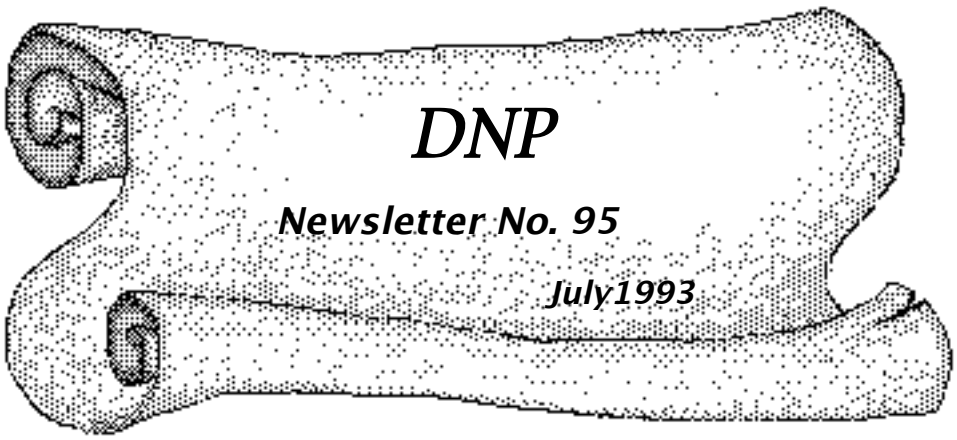


TO: Members of the Division of Nuclear Physics, APS
FROM: Virginia R. Brown, LLNL - Secretary-Treasurer, DNP

ACCOMPANYING THIS NEWSLETTER:

- Spring APS Meeting Invited Speaker Nomination Form (See Item 4).

20-23 OCTOBER DNP MEETING, ASILOMAR, CA

- A pre-registration form which includes workshops and banquet.
- A housing form.
- Map.

Future Deadlines

- **1 Sept. 1993 -** Nominations for 1993 Bonner Prize (See Item 7).
- **17 Sept. 1993** - Last day for Asilomar Fall Meeting "Special" Preregistration Rates and last day for lodging reservations at the Asilomar conference grounds (See Item 3).
- **27 Oct. 1993** - Invited Speaker Nomination Form for APS Spring Meeting (See Item 4).
- **1 April 1994** - Nominations for APS Fellowship (See Item 6).

1. NEW DIVISION BYLAWS APPROVED

By the deadline date of 9 July 1993, 405 properly identified ballots for the adoption of the new DNP Bylaws were received. The counting of the ballots was supervised by Larry J. Cox, David Krofcheck, Andrea Gabrielli, and Betty Voelker, all of LLNL.

The revision in the DNP Bylaws, which brings them into agreement with the new Constitution and Bylaws of the American Physical Society, was soundly approved.

2. RESULT OF SPECIAL ELECTION FOR ADDITIONAL DNP COUNCILOR

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 new APS Constitution and Bylaws state that the number of Division Councilors 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 Councilor. 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 Councilors. 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.

By the deadline date of 9 July 1993, 462 properly identified ballots were received for the 'special election' of a second Division Councilor. The counting of the ballots was supervised by Larry J. Cox, David Krofcheck, Andrea Gabrielli, and Betty Voelker, all of LLNL. Peter Paul, SUNY at Stony Brook, was elected to a four-year term beginning January 1994. He will replace G. T. Garvey, whose term expires December 1993. S. E. Koonin serves until December 1995.

3. DNP FALL MEETING AT ASILOMAR CONFERENCE CENTER IN PACIFIC GROVE, CA, 20-23 OCTOBER 1993

The Annual Fall Meeting of the Division of Nuclear Physics including three workshops will be held 20-23 October at the Asilomar Conference Center in Pacific Grove, California. The Asilomar Conference Center is a unit of the California State Park System and occupies 105 secluded acres of pines and dunes along the ocean's edge of the Monterey Peninsula. Asilomar is noted for the beauty of its natural setting -- its wind-twisted trees, the rolling, shifting dunes, and the mighty Pacific breakers beating against the shore. It is also close to other attractions of the Monterey Peninsula, such as the 17-Mile Drive; Pt. Lobos; historical points of interest in Monterey including Fisherman's Wharf and Cannery Row (now the home of the Monterey Aquarium); quaint shops; the Carmel Mission; Big Sur State Park; and the Butterfly Trees in Pacific Grove.

Divisional Meeting 21-23 October 1993

The main divisional meeting, held Thursday through Saturday, will consist of a plenary session, five other sessions of invited papers , and 31 sessions of contributed papers. Overhead projectors will be provided for all sessions, with slide projectors also available for invited talks on request. There will also be a DNP *"town meeting"* and meetings of users groups of various laboratories.

Meeting Program

Six invited sessions are planned for this meeting. The first one is the opening plenary session on *"Future of Nuclear Physics: Federal Support, Applications, and New Directions"*. Two of the invited sessions will be on topics selected by the program committee at the 1993 Washington APS meeting. One session on *"Hadron Structure at Intermediate and High Energy"* was arranged by R. Whitney (CEBAF). Another session with the title *"Topics in Heavy-Ion Physics"* was arranged by R. R. Betts (ANL) and S. G. Steadman, session chair (MIT). A third session on *"Radioactive Nuclear Beams"* was organized by the Local Committee and arranged by B. M. Sherrill (MSU) and J. M. Nitschke, session chair (LBL). The remaining two invited sessions were selected by the DNP Program Committee from nominations made by the DNP membership at large and organized into sessions by the Program Chair, C. B. Dover. The two sessions are *"Intermediate Energy Reactions, Spin and Symmetries in Nuclei"*, chaired by B. E. Bonner, and "*Relativistic Heavy-Ion Physic*s", chaired by P. Bond. Overhead projectors will be provided in each room; slide projectors will only be available for invited

papers (if requested in advance). The invited sessions are listed at the end of this newsletter.

The 344 contributed abstracts were arranged into 31 sessions by M. Aufderheide (LLNL), D. Cebra (U.C. Davis), Y. D. Chan (LBL), K. A. Griffioen (Univ. of Penn.), L. Hansen (LLNL), S. Krieger (LLNL), I. Y. Lee (LBL), G. J. Mathews (LLNL), E. Browne-Moreno (LBL), and G. Wozniak (LBL). The chairs of the invited sessions were selected by the Program Committee. The arrangers selected chairs for the contributed sessions mainly from suggestions from the Local Committee.

Plenary Session

The Plenary Session will be held on Thursday at 9:00 in Merrill Hall. The DNP Chair, N. Benczer-Koller (Rutgers), will chair the session. Three speakers and their topics are R. A. Eisenstein (Director, Physics Division NSF), *"The times, they are a'changin"*, R. L. Brodzinski, (Battelle, Pacific Northwest), *"Applying High Energy Physics Instrumentation to Environmental Restoration"*, and D. F. Geesaman (ANL), *"Nuclear Physics at Multi-Gev Hadron Facilities"*. A possible fourth speaker is not yet confirmed. Each talk will be 35 minutes long with an additional 10 minutes for discussion.

Town Meeting

As part of a continuing effort to provide timely information to the DNP membership and to provide a forum for public comment on issues that affect our field, the Division will hold a one-hour "town meeting" style business meeting at 16:00, Friday afternoon. A report on recent NSAC activities and updates from the funding agencies, DOE and NSF, will be presented. The floor will be open for discussion on current issues of concern to the field, such as future directions, support, training of nuclear physicists, education, public relations, technology transfer, and interfaces with other fields.

Workshops

Prior to the Divisional Meeting, three workshops will be held in parallel on Wednesday, 20 October, also at the Asilomar Conference Center. The workshops will run in parallel. A $25 registration fee covers all three workshops. Registration will begin on 19 October at 15:00 - 21:00 and continue at 8:00 on 20 October. Registration for the DNP meeting can also be accomplished at that time.

The workshop on *"Physics Opportunities with Large Ge Detector Arrays; Present and Future"*, organized by J. A. Becker, M. A. Deleplanque and J. A. Cizewski, will provide an overview of the physics opportunities provided with the new generation of large Ge detector arrays.

The workshop on *"Multifragmentation"*, organized by D. Cebra, G. Fai, C. K. Gelbke, J. Natowitz and H. G. Ritter, will present recent results on hot nuclear matter and the physics opportunities opened up by the new generation of 4π charged particle detectors.

The workshop on *"Frontiers in Neutrino Physics"* organized by K. Lesko, S. J. Freedman, B. Fujikawa, and A. Garcia, will present an overview of results from the current generation of neutrino detectors and opportunities for exploiting the new generation of neutrino detectors now under construction.

The programs for these workshops will include a review of current areas of activity for a general nuclear physics audience, including students, and will not be solely for specialists. Registration for one workshop will allow one to attend the other workshops as well.

Users' Group Meetings

16:30 - 17:30, Thursday, 21 October - The ATLAS Users' Group Meeting will be held in Viewpoint East. The NSCL Users' Group Meeting will be held in Viewpoint West. The CEBAF Users' Group Meeting will be held in Heather. The IUCF Users' Group Meeting will be held in Toyon.

19:30 - 20:30, Thursday, 21 October - The 88-INCH Users' Group Meeting will be held in Viewpoint East. The Holifield Radioactive Ion Beam Facility Users' Group Meeting will be held in Viewpoint West. The RHIC Users' Group Meeting will be held in Heather.

20:30 - 21:30, Thursday, 21 October - The Gammasphere Users' Group Meeting will be held in Viewpoint East

In order to schedule additional Users' Group meetings so as to prevent conflicts with other activities and to have them announced in the Pocket Epitome, please notify Mollie Field of the Conference Coordination Group or G. Wozniak, of the Local Committee, as soon as possible.

Registration and Accommodations

On-site registration for the meeting will take place in the Main Administration Building from 8:00 - 20:00 on Wednesday 20 October and from 8:00 - 12:00 on 21 October. Registration will continue at the DNP Headquarters, the Surf and Sand Building, at 12:00 - 17:30 on 21 October. Registration and information can be obtained in the Surf and Sand from 8:00 to 17:30 for the remainder of the meeting. The pre-registration fees are $90 for DNP members, $190 for non-DNP members, and $10 for retired and unemployed members and students. The cost of the workshop is an additional fee of $25. The cost of registration will increase after the preregistration date of **17 September 1993**.

Space, limited to about 600 participants, has been reserved at Asilomar and is in both "historic" and "deluxe" accommodations. Single accommodations (one person per room) at Asilomar are extremely limited. Special requests may be made by contacting Mollie Field in the Conference Coordination Group at LBL. Every effort will be made to accommodate these requests. For those individuals unable to acquire single accommodations at Asilomar, off-site housing is available at nearby hotels. Please contact Mollie Field (510) 486-6386 for a current listing of these hotels.

A facility day-user's fee of $35 per day will be charged to those participants staying off site. This fee allows access to all meeting and recreational facilities and entrance to the banquet. Those choosing to stay off-site must purchase an Asilomar meal ticket to be able to eat in the Center's dining hall (except the banquet). These tickets may be purchased from the Asilomar staff upon arrival.

The package rates, (refer to enclosed registration form), include lodging fees and meals (from dinner on Wednesday, 20 October through lunch on Sunday, 24 October, including a banquet). The additional amount for the workshop (the night of 19 October) is also indicated. Accommodation fees at Asilomar are sold as a package. No refunds can be made for early departure.

Requests for accommodations must be received by **17 September 1993**. Please use the accompanying reservation form, returning it and your check (we are unable to accept charge cards) to APS/DNP 1993 Conference Coordinator, Mail Stop 50F, Lawrence Berkeley Laboratory, Berkeley, California 94720 USA. For additional information concerning accommodations contact Mollie Field at the above address, phone (510) 486-6387 or *"mollie@lbl.gov"*.

Special Events

A welcoming reception is planned for Wednesday evening, 20 October from

19:30-21:30 in Merrill Hall. A banquet at Asilomar Conference Center is planned for Thursday evening, 21 October. An evening visit to the Monterey Aquarium is planned for Friday, 22 October. No formal Companion's Program is planned during the meeting but information about sights in the Monterey area will be available.

Access to Asilomar

Asilomar, located on the Monterey Peninsula, is a one hour flight from the San Francisco Bay Area. There are many flights available from the Bay Area's three airports (San Francisco, Oakland, or San Jose) connecting national and international flights to the Monterey Airport. Conference participants are advised to make these reservations as part of their whole flight. Transportation from San Francisco will not be provided. Transportation from the Monterey Airport to Asilomar is available by limousine service or taxi. The "Airport Limousine" provides service to Asilomar for a cost of $18.00/person one-way for 1-3 people. Reservations must be made in advance by phoning (408) 372-5555 or by faxing information (airline, arrival date and time) to (408) 373-8975. The cost of taxi service to Asilomar varies from $12.00 - $24.00 depending on time of day and traffic conditions. For those who prefer to drive or car-pool, Asilomar is a 2.5 hour drive from the San Francisco and Oakland airports.

All major automobile rental agencies are available at San Francisco, Oakland or San Jose airports. Remember to get the appropriate complimentary maps. From the San Francisco Bay Area, there are three main routes. One is **inland**, the second follows the **coast**, and the third is a **combination** of the two.

Inland Route - Highway 101, the fastest route, passes by the San Francisco airport on the west side of the S.F. Bay. Traveling south it goes by the San Jose airport and then moves through the center of America's Saladbowl, the Salinas Valley. In Salinas, turn west on Highway 156, which connects with Highway 1 in Monterey. Take Highway 1 toward Carmel, exiting at the "Pacific Grove/Pebble Beach" turnoff. **Turning right, you will be on State Highway 68. Follow this winding road through three stop lights. After the third light, veer left onto Sunset Drive. After the second stop sign, turn right onto Asilomar Blvd. The second gate on the left is the entrance to the conference center.**

Coastal Route - US Highway 1 follows the bluffs of the Peninsula with redwood forests on one side and the Pacific on the other. The highway continues through Año Nuevo, Santa Cruz, and the agricultural and fishing communities of the Monterey Bay. (There are many fine sights and restaurants along the way.) Follow Highway 1 to the "Pacific Grove/Pebble Beach" turnoff. From here you follow the directions at the end of the previous paragraph.

Combination Route - One can also take Highway 880, which is on the east side of the S.F. Bay and passes by the Oakland and San Jose airports. Highway 880, which becomes Highway 17 in San Jose, connects with Highway 101 in San Jose or Highway 1 in Santa Cruz. Then follow directions as above.

Local Committee

Members of the local organizing committee are G. J. Wozniak (Chair), LBL, J. A. Becker, LLNL, V. R. Brown, LLNL, D. Cebra, U.C. Davis, K. T. Lesko, LBL, and J. M. Nitschke, LBL.

4. SPRING APS MEETING, CRYSTAL CITY, VA, 18-22 APRIL 1994

The Division of Nuclear Physics will organize five sessions of invited papers for

the Spring meeting. The 1993 Program Committee will arrange two or three sessions of invited papers on topics selected at their **19 October** Asilomar meeting. Suggestions for topics are welcome and should be sent with reasons for their choice (before **October 19**) to the 1993 Program Committee Chair, Carl B. Dover. Additional information such as proposed talks with names of possible speakers for your proposed "topical" sessions would also be useful. The remaining sessions are selected by vote of the Program Committee from suggestions for individual speakers from the DNP membership. The composition of the "voted sessions" relies on the nominations from the entire DNP community; **you are urged to participate in this process.** The nomination form for individual speakers, which is included with this newsletter, should be mailed to Carl B. Dover as early as possible before the **27 October** deadline.

In addition to its usual five sessions at the Spring Meeting, the DNP will organize six joint sessions with other APS subunits. Six subcommittees have been formed; these include the Division of Particles and Fields (B. E. Bonner), the Division of Beam Physics (B. M. Sherrill and B. E. Bonner), the Division of Astrophysics (F. T. Avignone and W. C. Haxton), the Few Body Topical Group (D. M. Skopik), the Precision Measurement and Fundamental Constants Topical Group (W. C. Haxton), and the Division of Computational Physics (J. A. Carlson and C. B. Dover). If you have suggestions for these joint sessions, please contact members of the sub-committees or Carl B. Dover.

5. FUTURE DNP FALL MEETINGS

The present schedule for fall meetings is as follows:

1993	October 20-23 Asilomar, CA
1994	October 26-29 Williamsburg, VA
1995	October 25-28 Bloomington, IN
1996	October 16-19 Cambridge, MA

At the 1993 Washington Spring meeting, the DNP Executive Committee voted to hold its 1996 Fall meeting in Cambridge at the invitation of S. Kowalski from MIT.

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.

6. NOMINATIONS FOR APS FELLOWSHIP

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

The DNP deadline is normally **1 April.** Nomination forms are available from Mrs. Maximilla Cassell (The American Physical Society, 335 East 45th Street, New York, NY 10017). Completed forms should be returned to Dr. N. R. Werthamer at the same address.

The 1994 DNP Fellowship Committee is comprised of W. C. Haxton (Chair), J. Matthews, and V. E. Viola. 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.

7. NOMINATIONS FOR 1994 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 Middelton 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.

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 1993*** to: A. B. Balantekin, Dept. of Physics, Univ. of Wisconsin at Madison, 1150 University Ave., Madison, WI 53706.

8. BONNER-PRIZE FUNDING DEFICIT

The Tom W. Bonner Prize, which consists of $5000 and a certificate citing the contributions made by the recipient, is awarded annually. On June 30, 1989, the fund balance stood at $8,142, enough for one more prize in 1990. The prize was replenished in 1990 under the direction of R. A. Eisenstein. The contributors included private corporations, universities and laboratories, and individuals. A list of contributors was published in the May 1990 Newsletter. The fund is currently $15,000 short of what is recommended by the APS to keep the fund self sustaining. If you missed the opportunity to contribute during the 1990 fund raising drive, now is an opportune time to make that contribution. Please make out your check to the DNP Bonner Prize Fund and send it to V. R. Brown, DNP Secretary-Treasurer, LLNL, L-288, Livermore, CA 94550.

9. DNP NUCLEAR SCIENCE BROCHURE, G. M. CRAWLEY

Copies of the brochure should be available at the Asilomar meeting in October. DNP members who wish copies after that time will be sent them on request. We hope to arrange for many members of the DNP to carry copies of the brochure to State and Federal representatives. If you would care to participate in this activity, please send your name to G.M. Crawley, Physics Astronomy Department, Michigan State University, East Lansing, MI 48824 or by e-mail to *"crawley@msupa.pa.msu.edu"*.

10. BUDGET UPDATE FROM THE NUCLEAR SCIENCE RESOURCES COMMITTEE, G. CRAWLEY AND L. L. RIEDINGER, CO-CHAIRS

The appropriations bills for the funding of Nuclear Physics have passed the House and are under consideration in Senate subcommittees. The House action on the Department of Energy appropriations bill for Energy and Water occurred in late June and produced headline news by the vote to eliminate funding for the construction of the SSC, by a substantial margin (280-150). The stunning size of the SSC defeat is leading many to wonder if a positive Senate vote would be able to restore SSC funds in conference, as was the case last year.

As discussed in the last DNP newsletter, the FY94 DOE request for our field was $322M, which is down from the FY93 request of $363M and which included the abrupt termination of LAMPF in the new fiscal year. In response to this loss of $41M, representatives for the nuclear physics community (Hermann Grunder, Director of CEBAF; Ernest Moniz, Chairman of the Nuclear Science Advisory Committee; Siegfried Hecker, Director of Los Alamos National Laboratory; and Nicholas Samios, Director of the Brookhaven National Laboratory) signed a one-page statement asking for the $41M to be restored in the FY94 budget. This restoration would provide $22M for the completion of important experiments at LAMPF, as well as an orderly phase-out of LAMPF operations over the next two years. Also, $1M would be for use of the newly developed experimental capabilities at MIT/Bates Laboratory.

And, $15M would be to insure the timely completion of the RHIC project, and to reduce delays and cost escalation in the construction cost (the administration request for RHIC for FY94 was $70M, down by $20M from the previous plan). The recently passed House DOE bill included a total of $337.3M for Nuclear Physics, which is $15M higher than the administration request ($14M extra for LAMPF and $1M for Bates).

The House has also passed the appropriations bill on VA, HUD and Independent Agencies. This includes $3.024B for the National Science Foundation, 11% over the FY93 enacted level. Research and Related Activities receives $2.045B, a 10% increase over the FY93 level. The Education and Human Resources program total is $570M, a 17% increase. EPSCOR was increased by $5M over the FY93 level; the Academic Facilities and Instrumentation Program would be funded at $55M, the requested level for that program.

Further action in the Senate is expected in July, on both the DOE and NSF bills. After that, the usual conference committees will have to rectify the inevitable differences between the House and Senate versions.

11. 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.

1993 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. Volume 42 (available Dec. 1992) will be $59/$64 retail and $42/$45 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.*

12. FUTURE CONFERENCES

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

"The Gordon Conference on Dynamics of Simple Systems in Chemistry and Physics" to be held August 16-20, 1993 at Proctor Academy in Andover, New Hampshire. This interdisciplinary meeting is of interest to few-nucleon and few-electron physicists, quantum chemists, and others interested in systems with relatively few dynamical degrees of freedom. [For further information contact: J. L. Friar, Los Alamos National Lab., Chairman. e-mail: *"friar@lampf.bitnet"*, R. S. Berry, Univ. of Chicago, V-Chairman, e-mail: *"berry@rainbow.uchicago.edu"* or the Gordon Research Conferences Secretariat].

"Gull Lake Nuclear Physics Conference on Giant Resonances" to be held 17-21 August 1993, in Gull Lake, Michigan. [For further information contact: Michael Thoennessen, National Superconducting Cyclotron Lab., Michigan State Univ., East Lansing, MI 48824, phone: (517) 355-7549, fax: (517) 353-5967, internet: *"thoennessen@cycvax.nscl.msu.edu"* or bitnet: *"thoennessen@msunscl."*].

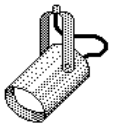
"8th International Symposium, on Capture Gamma-Ray Spectroscopy and Related Topics," to be held 20-24 September 1993, in Fribourg, Switzerland. [For further information contact: J. Kern, Physics Department University, CH-1700 Fribourg, Switzerland, phone: (41) (37) 826233, fax: (41) (37) 826519, bitnet: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

"1994 Symposium on Radiation Measurements and Applications 8th in a Series", to be held 16-19 May 1994, at the University of Michigan, Ann Arbor, Michigan. [For further information contact: Helen Lum, Symposium Secretary, 3034 Phoenix Memorial Laboratory, The University of Michigan, Ann Arbor, Michigan 48109-2100

"The Fifth Conference on the Intersections of Particle and Nuclear Physics" to be held May 31 to June 6, 1994 at the Stouffer Vinoy Resort, St. Petersburg, FL. The Conference will focus on the common areas of interest of current Particle and Nuclear Physics including Theory and Experiment, Facilities and Technology, and will emphasize the Physics in the Energy Region of 1 to 200 GeV. [For further information contact Elly Driessen, Conf. Secretary, TRIUMF, 4004 Westbrook Mall, Vancouver, B.C., V6T 2A3, Canada, phone: (604) 222-1047, fax: (604) 222-1074, telex: (0)-4508503, bitnet: *"driessen@triumfcl"*, *internet: "driessen@reg.triumf.ca"*, *decnet: "45397::driessen"*].

"International Conference on Perspectives for the Interacting Boson Model on the Occasion of its 20th Anniversary", to be held 13-17 June 1994. [For further information contact: J. Mooney, Physics Department, Brookhaven National Laboratory, Upton, NY 11973, fax: (516) 282-5568, e-mail: *"mooney@bnldag"*].

"1994 Gordon Research Conference on Nuclear Chemistry" to be held June 19-24, 1994, at the Colby-Sawyer College, New London, New Hampshire. The focus of this conference will be on nuclear reaction studies. [For further information contact: G. J. Wozniak, M/S 88, Lawrence Berkeley Laboratory, Berkeley, CA 944720, e-mail: *"wozniak@lbl.gov"*, phone: (510) 486-7852, fax: (510) 486-7983].



ANNOUNCEMENT

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

INVITED SPEAKERS OF THE DNP FALL MEETING
Asilomar, CA
20-23 October 1993

The meeting includes six invited sessions, one of which is a plenary session. All invited sessions are in Merrill Hall.

21 October
9:00 Thursday Morning

PA. Basic Nuclear Physics: Funding Trends, Applications, Future Directions, N. Benczer-Koller, presiding.

R. A. Eisenstein (Director Physics Division, NSF), "The times, they are a'changin".
C. R. Alcock (LLNL), "Baryonic Dark Matter?".
R. L. Brodzinski (Battelle, Pacific Northwest Laboratories), "Applying High Energy Physics Instrumentation to Environmental Restoration".
D. F. Geesaman (ANL), "Nuclear Physics at Multi-GeV Hadron Facilities".

13:30 Thursday Afternoon

AA. Hadron Structure at Intermediate and High Energies, R. Whitney, presiding.

A. Nathan (Univ. of Illinois), "New Results on Photon Scattering and Pion Production on the Nucleon".
M. Benmerrouche (Univ. of Saskatchewan), "Electromagnetic Excitation of the Δ Resonance and Pion Photoproduction".
P. Souder (Syracuse Univ.), "Review of Nucleon Structure Functions".
G. Karl (Univ. of Guelph), "Proton Spin Structure, Baryon Axial Currents and Magnetic Moments".

22 October
9:00 Friday Morning

BA. Topics in Heavy-Ion Physics, S. G. Steadman, presiding

N. Rowley (Daresbury), "Quantum Tunneling in Low Energy Heavy-Ion Reactions".
P. J. Woods (Edinburgh), "Proton Radioactivity".
T. Weaver (LLNL), "Critical Role of the $^{12}C(\alpha,\gamma)^{16}O$ Reaction in Stellar Evolution and Synthesis".
G. S. F. Stephans (MIT), "Probing Dense Nuclear Matter with Particle Correlations".
S. Pratt (Michigan State Univ.), "Viewing Relativistic Heavy-Ion Collisions with Two-Particle Correlations".

13:30 Friday Afternoon

CA. Radioactive Nuclear Beams, J. M. Nitschke, presiding.

F. Thielemann (Harvard), "The Study of Stellar Burning with Radioactive Beams".
H. Esbensen (ANL), "Skins and Halos in Exotic Nuclei".
D. Morrissey (MSU), "Nuclear Structure Studies Far from Stability with High Energy Radioactive Beams".
J. Garrett (ORNL), "Near-and Long-Term Prospects for Physics with Radioactive Beams".

23 October
9:00 Saturday Morning

DA. Intermediate Energy Reactions, Spin and Symmetries in Nuclei, B. E. Bonner, presiding.

T.-S.H. Lee (Argonne), "Pion Production on Nuclei Near Threshold".
B. Clark (Ohio State Univ.), "Global Dirac Phenomenology".
J. Sowinski (Indiana Univ.), "Toward the Nucleon Spin Structure of ^{3}He".
B. McKellar (Univ. of Melbourne), "CP Violation in Atoms and Nuclei".

13:30 Saturday Afternoon

EA. Relativistic Heavy-Ion Physics, P.D. Bond, presiding.

T. Hemmick (SUNY at Stony Brook), "Low P_t Enhancement in Meson Spectra from Relativistic Heavy-Ion Collisions".

B. S. Kumar (Yale Univ.), "Little Bang Nucleosynthesis and the Quest for Strange Quark Matter".

G. Odyniec (LBL), "Looking for Quark-Gluon Plasma with Strange Hadrons".

J. B. Carroll (UCLA), "Electron Pair Production in Nucleon-Nucleon and Nucleus-Nucleus Collisions at 1-5 A GeV".

EPITOME OF THE DNP FALL MEETING ASILOMAR, CA 20-23 October 1993

Chairpersons are in parentheses. Names without initials indicate invited speakers. All rooms are on the Asilomar Conference Center grounds. They include Merrill Hall, Chapel, Heather, Viewpoint East, Viewpoint West, Toyon, Acacia, Marlin, and Curlew. All meals are in the Crocker Dining Hall - **Breakfast**: 7:30-9:00; **Lunch**: noon-13:00; **Dinner**: 18:00-19:00 .

Registration and Coffee

Registration in the **Main Administration Building** will begin on **19 October** at **15:00-20:00** and continue from **8:00-20:00** on **20 October** and from **8:00-12:00** on **21 October**. Registration will continue at the **Surf and Sand Building** at **12:00-17:30** on **21 October**. Registration, information, and coffee can be obtained in the **Surf and Sand** from **8:00-17:30** for the remainder of the meeting.

20 October
8:30 Wednesday Morning

Workshop A: Physics Opportunities with Large Ge Detector Arrays: Present and Future. Diamond, Janssens, Henry, (J. D. Garrett); Riley, Herskind (C. J. Lister) Viewpoint West.

Workshop C: Frontiers in Neutrino Physics. Bahcall, Wolfenstein, Lande, Robertson. Deutsch, (J. Wilkerson) Chapel.

9:00 Wednesday Morning

Workshop B: Multi-Fragmentation. Randrup, Hagel, Bowman, Friedman, Lacey (J. Natowitz) Heather.

13:30 Wednesday Afternoon

Workshop A: Physics Opportunities with Large Ge Detector Arrays: Present and

Future. Fallon, Bonche, Carpenter, (J. C. Waddington); Durell, Radford (D. Cline) Viewpoint West.

Workshop B: Multi-Fragmentation. Bauer, Herrmann, Justice, Remaud (G. Fai) Heather.

Workshop C: Frontiers in Neutrino Physics. Goodman, Louis, Boehm, Haxton (B. Fujikawa) Chapel.

19:30-21:30 Wednesday Evening

Welcoming Reception - Merrill Hall

21 October
9:00 Thursday Morning

PA **Basic Nuclear Physics: Funding Trends, Applications, Future Directions**. Eisenstein, Alcock, Brodzinski, Geesaman, (N. Benczer-Koller) Merrill Hall.

13:30 Thursday Afternoon

AA **Hadron Structure at Intermediate and High Energies.** Nathan, Benmerrouche, Souder, Karl (R. Whitney) Merrill Hall.

AB **Nuclear Astrophysics**. (K. T. Lesko) Chapel.

AC **Weak Interactions Fundamental Symmetries**. (S. E. Vigdor) Heather.

AD **Nuclear Structure I: 110<A<140, Fission Products and Inelastic Reactions.** (C.-H. Yu) Viewpoint East.

AE **Self-Consistent Fields, IBM, and Models**. (S. J. Krieger) Viewpoint West.

AF **Instrumentation I: Low Energy.** (J. A. Nolen) Toyon.

AG **Heavy-Ion Reactions I: Bose-Einstein Correlations.** (B. M. Sherrill) Acacia.

AH **Heavy-Ion Reactions II: Low Energy.** (P. A. Deyoung) Marlin.

Thursday Evening

16:30-17:30 **ATLAS** Users' Group, Viewpoint East

16:30-17:30 **NSCL** Users' Group, Viewpoint West

16:30-17:30 **CEBAF** Users' Group, Heather

16:30-17:30 **IUCF** Users' Group, Toyon

18:00 **Banquet, Crocker Dining Hall**

19:30-20:30 **88-Inch Cyclotron** Users' Group, Viewpoint East

19:30-20:30 **Holifield Radioactive Ion Beam Facility** Users' Group, Viewpoint West

19:30-20:30 **RHIC** Users' Group, Heather

20:30-21:30 **Gammasphere** Users' Group, Viewpoint East.

20:20-21:30 **TRIUMF/KAON** Users" Group - Chapel

22 October
9:00 Friday Morning

BA **Topics in Heavy-Ion Physics.** Rowley, Woods, Weaver, Stephans, Pratt (S. G. Steadman) Merrill Hall.

BB **Heavy-Ion Reactions III: Intermediate Energy.** (R. Lacey) Chapel.

BC **Pions.** (S. J. Seestrom) Heather.

BD **Nuclear Structure II: 140<A<190**. (M. P. Carpenter) Viewpoint East.

BE **Photonuclear Reactions/Electron Scattering**. (J. R. Calarco) Viewpoint West.

BF **Nuclear Structure: Theory.** (B. R. Barrett) Toyon.

BG **QCD I.** (N. J. Snyderman) Acacia.

BH **Neutron Physics.** (L. F. Hansen) Marlin.

13:30 Friday Afternoon

CA **Radioactive Nuclear Beams.** Thielemann, Esbensen, Morrissey, Garrett (J. M. Nitschke) Merrill Hall.

CB **Heavy-Ion Reactions IV: Correlations.** (T. C. Sangster) Chapel.

CC **Proton Induced and Charge-Exchange Reactions.** (A. Garcia) Heather.

CD **Nuclear Structure III: A>190**. (K. Heyde) Viewpoint East.

CE **Heavy-Ion Reactions V: Ultrarelativistic.** (P. J. Siemens) Viewpoint West.

CF **Potentials: Optical, N-N, and Coulomb.** (R. H. Landau) Toyon.

CG **Instrumentation II: Medium/Relativistic Energy.** (F. P. Brady) Acacia.

CH **QCD II.** (L. Carson) Marlin.

16:00 Friday Afternoon

PB **Town Meeting, Merrill Hall**

Friday Evening

18:00 Dinner, Crocker Dining Hall
19:00-19:15 Buses to Monterey Bay Aquarium
19:30-21:30 Tour of Aquarium and Dessert Buffet
21:00-21:30 Buses return to Asilomar

23 October
9:00 Saturday Morning

DA **Intermediate Energy Reactions, Spin and Symmetries in Nuclei.** Lee, Clark, Sowinski, McKellar (B. E. Bonner) Merrill Hall

DB **Nuclear Astrophysics/Radioactive Nuclear Beams.** (F. Ajzenberg-Selove) Chapel.

DC **Heavy-Ion Reactions VI: Ultrarelativistic.** (D. A. Cebra) Heather.

DD **Nuclear Structure IV: A<60.** (C. N. Davids) Viewpoint East.

DE **Polarization.** (H. E. Conzett). Viewpoint West.

DF **Heavy-Ion Theory.** (J. Randrup) Toyon.

DG **Instrumentation III: General/Solar Neutrino.** (S. A. Wender) Acacia.

DH **Postdeadline Session**. (N. Stone) Marlin.

13:30 Saturday Afternoon

EA **Relativistic Heavy-Ion Physics.** Hemmick, Kumar, Odyniec, Carroll (P. Bond) Merrill Hall.

EB **Heavy-Ion Reactions VII: Fragmentation.** (D. R. Bowman) Chapel.

EC **Weak Interactions and Massive Neutrinos.** (W. Stoeffl) Heather.

ED **Nuclear Structure V: 60<A<110.** (J. A. Becker) Viewpoint East.

EE **Medium Energy.** (M. Leitch)
Viewpoint West.

TOPICS AND SPEAKERS FOR THE WORKSHOPS TO BE HELD 20 OCTOBER IN CONJUNCTION WITH THE DNP FALL MEETING

WORKSHOP A

PHYSICS OPPORTUNITIES WITH LARGE Ge DETECTOR ARRAYS: PRESENT AND FUTURE
Wednesday, 20 October 1993
Location: Viewpoint West
Organizing Committee: J. A. Becker, J. A. Cizewski, and M. A. Deleplanque

During the last several years, new and sometimes unexpected results have been obtained with large Ge detector arrays. A new generation of very large arrays (EUROGAM, GAMMASPHERE, and GASP) have been designed and are under construction at various international locations. The new arrays are about 100 times more powerful than the previous arrays and they provide the opportunity to explore new frontiers of physics. The first phases of these new arrays are operating and producing exciting physics results. This workshop will provide an introduction to the physics opportunities, the current physics problems under study, and a look to the future.

SESSION 1
Chair: J. D. Garrett (Oak Ridge National Laboratory)

8:30 - WA1 Why Compton-Suppressed Germanium Detector Arrays?, R. M. Diamond (LBL)

9:20 - WA2 Opportunities for Gamma-Ray Recoil Fragment Spectroscopy with the Argonne Fragment Mass Analyzer, R. V. F. Janssens (ANL)

9:50 - WA3 Properties of Collective Oblate Bands in Pb Nuclei, E. A. Henry (LLNL)

10:20 Break

SESSION 2
Chair: C. J. Lister (Yale University)

10:50 - WA4 A Highly Deformed Band in ^{136}Pm and the Anomalous $h_{11/2}$ Proton Crossing in the A ~ 135 Superdeformed Region, M. A. Riley (Florida State Univ.)

11:20 - WA5 Continuum Physics: Correlation and Fluctuation Analysis, B. Herskind (Niels Bohr Institute)

11:50 Lunch

SESSION 3
Chair: J. C. Waddington (McMaster Univ.)

13:30 - WA6 Spectroscopy in the 2nd Minimum of ^{150}Gd, P. Fallon (LBL)

14:10 - WA7 Cranked Hartree-Fock Approaches to Superdeformation, P. Bonche (SPhT-DSM, C. E. Saclay)

14:40 - WA8 Superdeformation Studies in the Mass 190 Region Using the New Ge Arrays, M. P. Carpenter (ANL)

15:10 Break

SESSION 4
Chair: D. Cline (Rochester University)

15:40 - WA9 The Spectroscopy of Neutron-Rich Nuclei, J. Durell (Manchester Univ.)

16:10 - WA10 Array Capabilities and Future Arrays, D. C. Radford (Chalk River Laboratories, AECL Research)

WORKSHOP B

MULTI-FRAGMENTATION
Wednesday, 20 October 1993
Location: Heather

During the course of violent nucleus-nucleus collisions, regions of hot, dense nuclear matter are formed. A large body of data from new 4π detectors is now available that is challenging existing reaction models. These detailed experimental studies have examined the final states of the disassembly process which have been compared to microscopic models that track the evolution of the reaction through its collision stage. By varying the model parameters, one can obtain insights about the equation of state of nuclear matter and the transition between the cold liquid-drop phase and a Fermi gas of unbound nucleons. Recent theoretical simulations have indicated the exciting possibility of forming exotic nuclear shapes (disks, donuts, bubbles) as transient structures in heavy-ion collisions. This workshop will present the latest experimental and theoretical studies as well as the physics opportunities opened up by this new generation of 4π detectors.

Organizing Committee: D. Cebra, G. Fai, C. K. Gelbke, J. Natowitz, and H. G. Ritter

SESSION 1
Chair: J. Natowitz (Texas A&M Univ.)

9:00 - WB1 Introduction, J. Randrup (LBL)

9:45 - WB2 Multi-fragment Emission at Intermediate Energies, K. Hagel, (Texas A&M Univ.)

10:15 - WB3 Toward the Liquid-Gas Phase Transition in Nuclear Matter, D. Bowman (AECL, Chalk River)

10:45 Break

11:00 - WB4 Statistical Multi-Fragmentation, Phase Transitions, and the EOS, W. Friedman (Univ. of Wisconsin)

11:30 - WB5 Disappearance of Flow: A Probe of the Nuclear Equation of State and the In-Medium Nucleon-Nucleon Cross Section, R. Lacey (SUNY, Stonybrook)

12:00 Lunch

SESSION 2
Chair: G. Fai, Kent State University

13:30 - WB6 Exotic Modes of Nuclear Fragmentation, W. Bauer (Michigan State Univ. and NSCL)

14:15 - WB7 Central Collisions of Au on Au at Incident Energies between 150 A and 1050 A MeV, N. Herrmann, (Univ. of Heidelberg)

15:00 Break

15:15 - WB8 New Results from the EOS TPC - Flow and Multifragmentation, M. Justice (Kent State Univ.)

16:00 - WB9 Dynamics of the Nuclear Disassembly, B. Remaud (Nantes)

WORKSHOP C

FRONTIERS IN NEUTRINO PHYSICS
Wednesday, 20 October 1993
Location: Chapel

Organizing Committee: K. Lesko, S. J. Freedman, B. Fujikawa, and A. García

The recently reported SAGE and GALLEX neutrino fluxes, Kamioka's real-time observations of solar neutrinos, and the first observations of neutrinos from a supernova have greatly increased the nuclear physics community's interest in neutrino physics. The next generation of neutrino detectors is now under construction and will begin observations in the next few years. This workshop will address the Solar Neutrino Problem and possible solutions, emphasizing these new data and the capabilities of the new detectors. We will also address the closely related topics of accelerator and reactor studies of neutrino oscillations, atmospheric neutrino anomalies, and possible supernova neutrino signatures, again emphasizing the next generation of experiments.

SESSION 1
Chair: J. Wilkerson (LANL)

8:30 - WC1 What Do Solar Neutrino Experiments Teach Us about Physics?, J. N. Bahcall (Institute for Advanced Studies, Princeton)

9:15 - WC2 Review of the MSW Solution to the Solar Neutrino Problem, L. Wolfenstein (Carnegie-Mellon Univ.)

10:00 - WC3 Present and near-future Radiochemical Solar Neutrino Detectors: ^{37}Cl, ^{71}Ga, ^{127}I and ^{7}Li, K. Lande (Univ. of Pennsylvania)

10:45 Break

11:00 - WC4 Real-time Experiments: Survey of Kamiokande, SNO, and SuperKamioka, R.G.H. Robertson (LANL)

11:45 - WC5 Next Generation of Solar Neutrino Experiments, M. Deutsch (MIT)

12:30-13:30 Lunch

SESSION 2
NEUTRINO MASSES AND EXOTICA
Chair: B. Fujikawa (LBL)

13:30 - WC6 Atmospheric Neutrino Oscillations, M. C. Goodman (ANL)

14:15 - WC7 Accelerator Based Searches for Neutrino Oscillations, A. K. Mann, (Univ. of Pennsylvania)

15:00 Break

15:15 - WC8 Reactor Based Measurements of Neutrino Oscillations, F. Boehm, (Calif. Inst. of Tech.)

16:00 - WC9 Supernova Models and Neutrino Signatures, W. C. Haxton (Univ. of Wash.)