

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 3)
- Proposed New Bylaws of the DNP (See Item 8)

# 14–17 OCTOBER DNP MEETING, SANTA FE, NM

- A pre-registration form which includes workshops and banquet.
- A housing form.
- A map.
- A companion's program and form.



## **Future Deadlines**

- 1 Sept. 1992-Nominations for 1993 Bonner Prize (See Item 9).
- 14 Sept. 1992-Last day for Santa Fe Fall Meeting "Special" Preregistration Rates, Full Registration Refunds, and Guaranteed Hotel Rates.
- 23 *Oct.* 1992-Invited Speaker Nomination Form for APS Spring Meeting.
- 1 April 1993-Nominations for APS Fellowship (See Item 7).

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

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

Santa Fe is an appropriate meeting place in the year of the quincentennial celebration of the historic voyage of Christopher Columbus. Santa Fe and its surrounding countryside are inhabited by descendants of the indigenous people living on this continent before Columbus' arrival, the Spanish colonialists that followed Columbus, and more recent settlers. This diversity has helped to make Santa Fe, the oldest capital city in the United States, a cultural center of the Southwest. It is a pleasure to wander its narrow streets amid the historic adobe buildings containing galleries, shops, restaurants, and five museums. Santa Fe is nestled in the foothills of the scenic Sangre de Cristo Mountain Range, and has fifteen state and national forests, parks, campgrounds, and

monuments within a sixty mile radius, and numerous Indian pueblos in its vicinity. The Santa Fe Institute, a multidisciplinary research institution studying complexity in physical, biological, and social systems, is located in Santa Fe. Los Alamos National Laboratory is forty miles to the northwest, and the University of New Mexico and Sandia National Laboratory are in Albuquerque, sixty miles to the southwest.

# Divisional Meeting 15-17 October 1992

The main divisional meeting, held Thursday through Saturday, will consist of a plenary session, six other sessions of invited papers including one joint session with the Division of the History of Physics, and 32 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

Seven invited sessions are planned for this meeting. The first one is the opening plenary session on "Many-Body Problems with Connections to Nuclear Structure". Two of the invited sessions will be on topics selected by the program committee at the Washington meeting. One on "New Results in Electromagnetic Physics" has been arranged by A. Bernstein (MIT). Another session on "Exotic Nuclear Structure and *Reactions*" has been arranged by R. R. Betts (Argonne). A third session on "Modification of Physical Processes in the Nuclear Medium", chaired by M. Strikman (Penn State) has been organized by the local committee. The remaining two invited sessions were selected by the Program Committee using nominations from the DNP membership. These speakers have been arranged into two sessions "Beta Decay and Solar Neutrinos" and "Mesons, Solitons and Quarks in Nuclei" by the DNP Program Chair, Noemie Benczer-Koller (Rutgers University). In addition there will be a joint session with

the Division of the History of Physics on the "Birth of the Nuclear Age 50 Years Ago, Part II. Some 1942 Preludes to Los Alamos". The invited sessions are listed at the end of this newsletter.

The 347 contributed abstracts were arranged into 32 sessions by M. Aufderheide (LLNL), J. Dairiki (LBL), L. Hansen (LLNL), S. Krieger (LLNL), K. Lesko (LBL), H. Matis (LBL), and W. D. Myers (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

Now that the "Long Range Plan" for nuclear physics is in place, the DNP Fall meeting Plenary Session has changed its focus somewhat. The first "New Style Plenary Session" was at the 1990 Urbana Champaign meeting and had the title "Nuclear Physics in Society". The topic for the 1991 East Lansing meeting was "Nuclear Physics at the Interfaces". The topic for the Santa Fe meeting is "Many-Body Problems with Connections to Nuclear Structure".

The Plenary Session will be held on Thursday at 13:30 in the Main Auditorium on the first floor of Sweeney Center. The DNP Chair, W. C. Haxton (University of Washington), will chair the session. The three speakers and their topics are S. Kivelson (UCLA), "Global Phase Diagram in the Quantum Hall Effect", V. Kresin (LLNL), "Metallic Clusters and Nuclear Physics Models", and George Bertsch (Michigan State University), "Single-Particle and Collective Motion in Buckyballs". Each talk will be 45 minutes long with 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. Reports on progress in the framing of the new DNP Constitution and Bylaws, a report on recent NSAC activities, and updates from the funding agencies, DOE and NSF, will be presented.

# Joint Session with the Division of History of Physics

In view of the 50th anniversary of the foundation of Los Alamos National Laboratory, Prof. H. Richards of the Univ. of Wisconsin and Prof. G. Holton of Harvard Univ., the new Chair of the Division of the History of Physics, suggested that the October Santa Fe meeting would provide an appropriate time and location for a second historical session on the Birth of the Nuclear Age 50 Years ago. The first session, labelled "Prelude to Los Alamos, Part I" dealing with slow neutron physics and leading to reactor development, was held at the Washington Meeting in April. The second session in Santa Fe will have talks on fast neutron measurements, accelerator and instrumental developments, fast neutron large angle scattering and cross section studies.

# **Preconference Workshops**

Two workshops will be held in parallel on Wednesday, October 14, prior to the main meeting. The workshop on "New Vistas in Physics with High-Energy Pion Beams", organized by C. B. Dover, B. F. Gibson, J. B. McClelland, and S. J. Seestrom, will provide an overview of the physics opportunities provided by high-quality, intense pion beams with energies up to about 1 GeV. The workshop on "Neutrons - Their Use for Nuclear Physics and Fundamental Symmetry Tests", organized by A. Gavron, P.W. Lisowski, J. R. Nix, and J. F. Wilkerson, will address diverse physics topics involving a variety of neutron beams. 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 workshop as well.

# Users' Group Meetings

16:30, Thursday, 15 October - The HHIRF Users' Group Meeting will be held in Room 1. The GAMMASPHERE Users' Group Meeting will be held in Room 2. The CEBAF Users' Group Meeting will be held in Room 3. The LAMPF Users' Group Meeting will be held in Room 4.

18:00, Thursday, 15 October - The 88-INCH Users' Group Meeting will be held in Room 2. The ISL Users' Group Meeting will be held in Room 5.

17:30, Friday, 16 October - The ATLAS Users' Group Meeting will be held in Room 1. The NSCL Users' Group Meeting will be held in Room 2. The Bates Users' Group Meeting will be held in Room 3. The RHIC Users' Group Meeting will be held in Room 4. The IUCF Users' Group Meeting will be held in Room 5. The KAON Users' Group Meeting will be held in Room 6.

# Companion's Program

A Companion's Program has been organized by Recursos de Santa Fe, a non-profit educational organization with particular emphasis on the arts, literature, culture, geography, and natural history of the Southwest. A description of the program and a reservation form is enclosed.

# Registration

Preregistration fees for the three-day main meeting are \$80 for APS members, \$150 for nonmembers, and \$10 for retired and student members. After *14 September 1992*, the respective fees will be \$100, \$170, and \$15, as indicated on the attached

registration form. Registration fees for the workshops are \$20, increasing to \$25 after 14 September 1992, with fees being waived for students. Make your check payable, in U. S. dollars, to APS/DNP. Allow one week for your return confirmation. No credit cards will be accepted.

Refunds can be made if written cancellations are received from preregistrants postmarked prior to 14 September 1992. No refund will be allowed for withdrawal postmarked after 14 September 1992.

The registration desk will be open throughout the Meeting beginning 4:00 p.m., 13 October, and will be located in the lobby of the Sweeney Center.

If you are an APS member and would like to join the DNP, please add \$5 to your registration fee, and we will be pleased to add your name to the membership list. Your APS membership number helps with the bookkeeping.

# Receptions and Banquet

A welcoming reception is planned for Wednesday evening, 14 October at 18:30 in the Anasazi Room of the Eldorado Hotel. A reception and banquet will be held Friday evening, 16 October, at 19:00 and 20:00, respectively. The reception will be held in the Grand Corridor and Courtyard, and the banquet will be held in the Anasazi Room, which are convenient to both the Sweeney Center and the Santa Fe Plaza (see attached map). The banquet is optional and costs an extra \$30. The banquet at the 1988 Fall Meeting in Santa Fe was a great success with a very enlightening and entertaining talk on Chaco Canyon. We shall try to live up to that standard.

# CSWP Reception

The APS Committee on the Status of Women in Physics (CSWP) is pleased to announce that it will be having a reception

hosted by CSWP Chair Bunny Clark. It will be held on Thursday, 15 October, in the Zia Room of the Eldorado Hotel from 5:00 p.m. to 8:00 p.m. All are cordially invited to attend!

## Meals

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

## Lodging

The Fall Meeting will use eight hotels with varying rates and services. All hotel rooms should be reserved via the attached hotel form by 21 August 1992 through the Sweeney Convention Center Housing Bureau. You are encouraged to use the enclosed advanced housing form to indicate the hotel of your choice. For each room reserved through the Bureau, the Sweeney Center will deduct one dollar per night from the rent that the Division of Nuclear Physics pays for the use of the Center for the meeting and workshops. After *August* 21, 1992 the hotels must be contacted directly. The Housing Bureau will accept checks in U.S. dollars and credit cards.

Since Santa Fe is a popular resort city and a large attendance is expected at the 1992 DNP fall meeting, it is recommended that hotel reservations be made early. Each hotel is offering a substantially reduced rate and has been selected for amenities and convenience with your comfort and budget in mind. These special rates will also be valid for the evening of October 13 for those attending one of the workshops on October 14. Restaurants and shops are convenient to all hotels and all hotels have parking. If you drive to Sweeney Center, be prepared to pay a parking fee. A map showing the location of the hotels with respect to Sweeney Center is enclosed. If the hotel of your first choice is full, a reservation will be

made where space is available in the order specified on the form. In the following we provide a short description of each hotel listed on the housing form.

### **ELDORADO HOTEL**

309 W. San Francisco St., Santa Fe, NM 87501 Rates: Single/Double \$91.00, suites available

The Eldorado, an award winning southwestern Pueblo style hotel, is one block from Sweeney Convention Center. The banquet and reception will be held at this five diamond hotel.

HOTEL ST. FRANCIS 210 Don Gaspar Ave., Santa Fe, NM 87501 Rates: Single/Double \$80.00

The St. Francis, a charming 1920's style hotel listed on the National Register of Historic Places, is four blocks from the Sweeney Convention Center.

LA FONDA ON THE PLAZA 100 E. San Francisco Street, Santa Fe, NM 87501

Rates: Single/Double \$90/\$100.00, suites available

The La Fonda, an Indian Pueblo style hotel, is four blocks from the Sweeney Convention Center. The hallways and guest rooms of this hotel are handpainted with Indian designs.

GARRETT'S DESERT INN 311 Old Santa Fe Trail, Santa Fe, NM 87501 Rates: Single/Double \$79.00

The Inn is about six blocks from Sweeney Convention Center and is located near the end of the famous Santa Fe Trail.

> LA POSADA DE SANTA FE 330 E. Palace Ave., Santa Fe, NM 87501 Rates: Single/Double \$90.00

At La Posada, Spanish style accommodations ramble over six acres of landscaped gardens. La Posada is approximately a ten-minute walk from the Sweeney Convention Center.

SANTA FE BUDGET INN 725 Cerrillos Road, Santa Fe, NM 87501 Rates: Single/Double \$48.00

The Budget Inn, a moderately priced motel in the high rent district near the Plaza, is a ten-minute walk from Sweeney Convention Center.

PICACHO PLAZA HOTEL 750 N. St. Francis Dr., Santa Fe, NM 87501 Rates: Single/Double \$61.00

The recently renovated Pueblo style Picacho Plaza is a fifteen-minute walk from Sweeney Convention Center. A free shuttle service is available daily from 8:00 am to 10:00 pm.

HOTEL PLAZA REAL 125 Washington Ave., Santa Fe, NM 87501 Rates: Single/Double \$65/\$75.00, suites available

The Plaza Real, a new territorial style hotel, offers a complimentary Continental breakfast and is three blocks from the Sweeney Convention Center and a half block off the Plaza.

## **Transportation**

Albuquerque International Airport is sixty miles (~90km) southwest of Santa Fe (about 70 minutes on Interstate 25) and is serviced by most of the major domestic airlines. Shuttlejack operates a convenient and frequent shuttle service to the hotels at the rate of \$20 each way, but early reservations are strongly advised (1-800-452-2665, between 8:00 a.m. and 5:00 p.m., Mountain time; inside New Mexico, 982-4311). The buses depart from in front of the airport terminal in the area of Southwest Airlines at the ground level. Call 243-3244 from inside the terminal if there are problems. The first departure is at 6:50 a.m.; the last at 10:15 p.m. (8:15 p.m. after 15 October). The driver will stop at the Eldorado Hotel and the Inn at Loretto, but will drop you off at your hotel upon request. The first departure from

downtown Santa Fe to the airport is at 5:00 a.m. and the last is at 5:35 p.m. (8:30 p.m. before 16 October). Pickups are at the Eldorado Hotel and the Inn at Loretto, but you can be picked up at your hotel upon request by calling, or asking your hotel to call, 982-4311 between 8:00 a.m. and 5:00 p.m.

The major car rental companies have offices at the airport. If you are driving from the airport, exit the airport right onto Yale Boulevard and then take the first left onto Gibson. Take the entrance to I-25 North to Santa Fe which will be on the right. There are three exits for Santa Fe all of which converge onto the Plaza (see the map). The first one, Cerrillos Road, is usually the most heavily used and the most direct; the third, the Old Pecos Trail, the least used.

Santa Fe Municipal Airport is not serviced by the major airlines but does have shuttle flights from Albuquerque and Denver on Mesa Airlines (1-800-MESA-AIR). Mesa Airlines does connect with the major airlines at Albuquerque and Denver; these connections can be arranged through your travel agent. Santa Fe Airport is twelve miles from the Plaza and does not have regularly scheduled bus service, but the Santa Fe Hotel Limo will pick you up if reservations are made in advance (505-988-3535). Otherwise you can call Santa Fe's only taxicab company, Capitol City Cab (505-989-8888). Avis and Hertz have offices at the Santa Fe Airport.

## Local Committee

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

For further information concerning registration contact the Local Conference Coordinator:

Los Alamos National Laboratory Protocol Office, MS P366 Attn: Millie Saxman APS/DNP Local Conference Coordinator Los Alamos, NM 87545 PHONE: 505 - 667 - 6574 FAX: 505 - 667 - 7558

For more information concerning hotels contact:

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

For additional information concerning the companion's program contact:

Frances White Recursos de Santa Fe 913 Calle Vistoso Santa Fe, NM 87501 Phone: 505 - 988 - 7481

# 2. PHENIX COLLABORATION MEETING

A collaboration meeting to discuss a) draft of conceptual design report, b) R&D plan, and c) construction plan for the PHENIX experiment at RHIC will be held 18-20 October at the Eldorado Hotel following the DNP/APS Santa Fe meeting. PHENIX participants as well as those who are interested in joining PHENIX are welcome to the meeting. For details, write S. Nagamiya at nag@nevis.

# 3. SPRING APS MEETING, WASHINGTON, D.C., 12-16 APRIL 1993

The Division of Nuclear Physics will organize seven sessions of invited papers for the Spring meeting. The 1992 Program Committee will arrange two or three sessions of invited papers on topics selected at their 14 October Santa Fe, NM meeting. Suggestions for topics are welcome and should be sent with reasons for their choice

(before October 14) to the 1992 Program Committee Chair, Noemie Benczer-Koller. Additional information such as proposed talks with names of possible speakers for your proposed topic 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 Noemie Benczer-Koller as early as possible before the 23 October deadline.

In addition to its usual seven sessions at the Spring Meeting, the DNP will organize joint sessions with other APS subunits. Four subcommittees have been formed to initiate contacts with the Division of Particles and Fields (Wick Haxton and Don Geesaman), the Division of Beam Physics (Jerry Garrett and Gordon Wozniak), the Division of Astrophysics (Art Champagne and Grant Mathews) and the Few Body Topical Group. If you have suggestions for these Joint Sessions, please contact members of the sub-committees or Noemie Benczer-Koller.



# 4. DNP MEMBERSHIP INSUFFICIENT FOR TWO DIVISION COUNCILLORS

The DNP needs 185 new members by December 1992 in order to exceed 6% of the total APS membership, which is required in order to maintain two Division Councillors! This goal assumes a 4% growth in the APS as was the case last year. By comparison the Division of Particles and Fields is over the required amount at 7.71%, and their recent membership drive to increase the safety margin is reported to have been quite successful.

Members are urged to invite their colleagues, post docs, and students to join. Graduate students at Ph.D. granting institutions receive their first year APS and DNP dues free of charge. The special application forms can be obtained through their department heads. If such forms have not been received, please request them from the APS.

If you know someone who wants to join or reinstate membership, and they are not sure how to go about it, tell them to write a letter to the APS/Membership Department, 335 East 45th Street, New York, NY 10017-3483 stating that they want to join the DNP. They should enclose a \$5 check, and to avoid mix-ups they could include their APS membership ID number. If they have not yet paid their 1992 APS bill, then they simply add the DNP as an elected subunit and include \$5 more. Lifetime APS members are not lifetime DNP members.

If you are an APS member and would like to join the DNP, you may simply add \$5 to your Santa Fe registration fee, and we will be pleased to add your name to the membership list. Your APS membership number helps with the bookkeeping.

# 5. GAMMASPHERE USERS GROUP, R.V.F. JANSSENS

The construction of Gammasphere, the National Gamma-Ray Facility consisting of an array of 110 Compton-suppressed detectors, is progressing rapidly. The community of potential users of the device has organized itself into a users group, and an Executive Committee has been elected. This committee consists of John Becker (Lawrence Livermore National Lab.), Jerry Garrett (Oak Ridge National Lab.), Robert Janssens (Chairman, Argonne National Lab.), Kim Lister (Secretary, Yale University), David Radford (Chalk River Lab.), and Leo Riedinger, Jr. (Univ. of Tennessee). People who are not yet members of the Gammasphere Users Group can join the organization by writing either to Dr. R. McDonald, User Liaison Physicist, MS-

88, LBL, 1 Cyclotron Road, Berkeley, CA 94720 "88users@lbl.bitnet" or to Dr. R.V.F. Janssens, Physics Division, Argonne National Lab., Argonne, IL 60439 "janssens@anlphy.bitnet". A meeting of the Users Group will take place at 16:30 in Room 2 of Sweeney Center at the fall meeting of the DNP in Santa Fe.

### 6. FUTURE DNP FALL MEETINGS

The present schedule for fall meetings is as follows:

1992	October 14-17
	Santa Fe, NM
1993	October 20-23
	Asilomar, CA
1994	October 26-29
	Univ. of Arizona
1995	October
	Indiana University

The dates include the Wednesday
"workshops", which are held in conjunction
with the DNP fall meetings. Holding
"workshops" at the DNP fall meetings has
become a tradition which began with the
1986 Vancouver meeting. All meeting
attendees are welcome and encouraged to
come. It has been the intention of the DNP
Executive Committees that these
"workshops" should have broad appeal,
with introductory pedagogical talks for the
benefit of those who have come primarily
for the DNP meeting but want to take the
opportunity to learn about a field of
specialty of the local community.

# 7. NOMINATIONS FOR APS FELLOWSHIP

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

Fellowship in a given year is one half of one percent of the total APS membership.

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

The 1992 DNP Fellowship Committee is comprised of J. B. Ball, (Chair), E. G. Adelberger, F. E. Bertrand, Jr. and E. J. Moniz. The Fellowship Committee reviews the nominations for APS fellowship referred to the DNP and recommends a slate of candidates which is forwarded to the DNP Executive Committee and then to APS Council for approval.

It is particularly important for nominators to ensure that the cases which they prepare for the Fellowship Committee are well documented. In addition to that requested on the nomination form, information such as lists of invited talks, awards, professional activities, committee services, and participation in organization of conferences is very helpful. Inclusion of a complete publication list is highly recommended.

The DNP has adopted the following Fellowship Criteria Guidelines. To be chosen as a Fellow, an APS member should 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 speciality 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.

# 8. NEW DIVISION BYLAWS, J. B. BALL

As promised in the last Newsletter, included with this issue is a copy of the proposed revised Bylaws of the Division. This revision has been made to bring our bylaws into agreement with the new constitution and bylaws of the American Physical Society. The revision is patterned after "model" Bylaws provided by the Society. The general format is nearly the same as our old Bylaws, but is organized with a bit more clarity. Wherever it seemed appropriate, the language of our present Bylaws was retained.

There are a number of minor wording changes throughout the new Bylaws intended to provide clearer meaning and to correspond with the manner in which we presently operate. None of these constitute a change of intent.

The one item of significant change in the new Bylaws is in Article VI, and related sections, where the officers of the Division are defined. In the past, we have had a three-step sequence of officers: Vice-Chair, Chair, and Past-Chair. Under the proposed revision, we will have an additional officer and the sequence will be: Vice-Chair, Chair-Elect, Chair, and Past-Chair. This change is required by the new Constitution of the APS.

The next steps in the process of considering the Bylaws revision will follow the procedure established by our present Bylaws:

- 1) You are hereby notified, by this Newsletter, that there will be a public discussion of the proposed revision at the Division Business Meeting to be held at the Santa Fe meeting.
- 2) Public comments on the proposed revision will be taken at Santa Fe.
- 3) In response to public comment, changes will be made as deemed appropriate by the DNP Executive

Committee and submitted to APS Council for concurrence if required.

4) The final version of the revised Bylaws will be distributed to the membership and voted on by mail ballot at the time of our next election for officers.

The new bylaws will go into effect if approved by at least two- thirds of ballots returned. (Note that the number of officers voted on in the next election will not change since we will still be operating under our present Bylaws at that time.)

# 9. NOMINATIONS FOR 1993 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, and H. G. Blosser and R. E. Pollock.

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, and we currently have seven active nomination packages. While these packages may consist of nothing more than a letter of nomination, 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* **1992** to: Robert J. Perry, Ohio State University, Department of Physics, 174 West 18th Avenue, Columbus, OH 43210.

# 10. 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. On December 31, 1991, the fund balance was \$85,230. This is \$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.

## 11. NUCLEAR SCIENCE BROCHURE

The DNP Executive Committee has decided to prepare a "brochure for the non-practitioner" on nuclear science. The brochure will be used to convey the excitement of nuclear science and its uses to our colleagues in other fields as well as to Congress and the funding agencies. Gary Crawley has agreed to coordinate the effort. The science will be adapted from the Long Range Plan, but it will be written at a simpler level and with more emphasis on applications. Suggestions for topics or volunteer contributions should be sent to "crawley@msunscl.bitnet" as soon as possible.

# 12. BUDGET UPDATE FROM THE NUCLEAR SCIENCE RESOURCES COMMITTEE, L. L. RIEDINGER, JR., CHAIR

The President's budget request for fiscal year 1993 (beginning October 1, 1992) was submitted to Congress in early February and has been moving through the Congress since. The Department of Energy funds for Nuclear and High Energy Physics are contained in the Energy and Water appropriations bill, which has now progressed through the House but not yet the Senate. In the House, the Nuclear Physics request of \$363.5 million (a 2.6% increase over FY92) was approved in full, including construction funds of \$71.4 M for RHIC and \$33 M for CEBAF.

The House action on High Energy Physics and the SSC was much more severe. The Energy and Water subcommittee of House Appropriations recommended a decrease of the request (\$630 M) for High Energy Physics by removing \$15 M for the Fermilab main injector (half of the request) and \$2.5 M for SSC laboratory research (all of the request). In addition, it voted to keep SSC construction level at \$484 M (rather than the request of \$650 M). However, the full House of Representatives voted to remove all SSC funding. This has provoked a strong debate on the merits of the SSC, and heightened the importance of Senate deliberations. On June 30 Senator Bennett Johnston held hearings to take input from supporters of this project. The crucial next step is the work of his Energy and Water subcommittee of Senate Appropriations.

The final House appropriations bill included the requirement that \$20 M of "unobligated balances" be used to cover part of the appropriated programs in nuclear and high-energy physics. The Congressional impression is that DOE has at least that much non-earmarked carryover from previous years, but DOE officials dispute that. If such funds were not available within DOE, then the programs would have to be scaled back to cover this \$20 M shortfall for nuclear and high-energy physics.

The requested increase for the National Science Foundation is 17.7% to a level of \$3.03 billion. This funding is contained in the VA, HUD, and Independent Agencies Appropriations Bill, which always gives rise to a competition for funds between NSF and big-ticket programs in EPA, NASA, Veterans' Administration, and Housing and Urban Development. The real problem this year is that this subcommittee of House Appropriations received an allocation that is increased by only 4.8% over FY92. This has resulted in bad news for the NSF, as the subcommittee voted \$2.72 billion, up only 6% over FY92. Almost all of the recommended \$150 M increase in the NSF budget is in the Antarctic Program, whereas Research, Education, and Academic Research Instrumentation are all level compared to FY92. The full House Appropriations

Committee still must consider this bill, after which the Senate will act.

# 13. NSAC REPORT, G.M. CRAWLEY

An NSAC meeting was held on June 11-12, 1992, to discuss the CEBAF operating budget. Prior to this meeting, a seven person subcommittee headed by Derek Lowenstein of BNL had visited CEBAF, heard presentations on the operating budget from CEBAF staff, and had written a report on their findings. This report recommended an operating budget of \$59.5M (in FY93\$) for a 40 week running schedule. The subcommittee pointed out that the large change from the review held in 1988 can be attributed to an almost 40 person increase in Environmental Safety and Health activities, a significant increase in the scope of the experimental program, and a much better appreciation of the radio frequency system technology difficulties. NSAC heard an overview presentation by CEBAF staff, a presentation of the subcommittee report, and the CEBAF response which argued strongly for a budget about \$5M per year larger than the subcommittee recommended. After considerable discussion, NSAC endorsed the subcommittee findings. The final NSAC report is expected to be circulated before the middle of July 1992.

# 14. SUSPENSION OF PUBLICATION CHARGES FOR PHYSICAL REVIEW C COMPUSCRIPTS, S.M. AUSTIN

Publication charges (often called pages charges) will not be requested for papers accepted for publication in Physical Review C as compuscripts beginning 1 July 1992. A compuscript is a paper intended for production from an appropriate REVTEX, LATEX or TROFF computer file supplied by the author. The suspension of publication charges for compuscripts in Physical Review C has been approved by the American Physical Society as part of a three-year pilot program. For information

about compuscripts, see the Information for Contributors in the January 1992, issue of Physical Review C. Contact "tex@apsedoff" (bitnet) or "tex@aps.org" (internet) for more detailed information.

Submission via electronic mail is encouraged for papers whose files are formatted in REVTEX or LATEX, whether intended as compuscripts or not. The files may be sent to either of the two above electronic addresses.

# 15. ANNUAL REVIEWS OF NUCLEAR AND PARTICLE SCIENCE

The Division has continued the agreement with Annual Reviews, Inc., which will enable DNP members to obtain copies of the "Annual Review of Nuclear and Particle Science" at a 30% discount when purchased through the DNP Secretary-Treasurer, Virginia R. Brown, Lawrence Livermore National Laboratory, P. O. Box 808, L-288, Livermore, CA 94550.

**1992 Prices:** In what follows the price for U.S.A. is before the slash; the price for "Other Countries, including Canada" follows the slash. Volumes 12–41 are \$55/\$60 retail and \$39/\$42 for DNP members.

Other Annual Reviews are also available. Payment (Payable to the Division of Nuclear Physics–APS) must accompany your order and must be in U.S. funds. California orders must add applicable sales tax. Since 1 January 1991, all orders shipped to Canada require the addition of a 7% General Sales Tax.

#### **16. FUTURE CONFERENCES**

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

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

"Gordon Research Conference on *Photonuclear Reactions,"* to be held August 10–14, 1992, at the Tilton School, Tilton, New Hampshire. [For further information contact D. M. Skopik, Saskatchewan Accelerator Laboratory, University of Saskatchewan, Saskatchewan S7N 0W0, phone:

(306) 966-6054, fax: (306) 966-6058.]

"American Chemical Society National Meeting--Division of Nuclear Chemistry and Technology," to be held 23-28 August 1992, in Washington, DC. Symposia include "Nuclear Shapes," "Radiochemistry and Safety Aspects of the Next Generation of Nuclear Power Plants," "Radionuclide Generator Systems for Nuclear Medicine Applications," and "Pre-College Education in Nuclear Science." Abstract deadline is April 24. [For further information contact: S. W. Yates, University of Kentucky, Lexington, KY 0506-0055, phone: (606)257-7085, bitnet: yates@ukcc.]

"Symposium on Nuclear Data *Evaluation Methodology,"* to be held 12-16 October 1992, at Brookhaven National Laboratory, Upton, New York. [For further information contact: 92BNL Symposium, National Nuclear Data Center, Brookhaven National Laboratory, Upton, New York 11973, phone: (516) 282-2902, fax: (516) 282-2806, telex: 6852516 BNL DOE, internet: nndc@bnl.gov, bitnet/earn: nndc@bnl.]

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

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

"The International Workshop on Polarized Ion Sources and Polarized Gas Targets," to be held 23-27 May 1993, at the University of Wisconsin, Madison, Wisconsin. [For further information contact: Prof. L.W. Anderson or Prof. W. Haeberli, Department of Physics, University of Wisconsin, 1150 University Avenue, Madison, Wisconsin 53706, phone: (608) 262-6555/8962, fax: (608) 262-3598, email: bitnet%madspin@wiscnuc.]

"Third International Conference on Radioactive Nuclear Beams," to be held 24-27 May 1993, at Michigan State University. [For further information contact: David J. Morrissey, National Superconducting Cyclotron Lab, Michigan State University, East Lansing, Michigan 48824, phone: (517) 355-9554, fax: (517) 353-5967, internet: morrissey@cycvax.nscl.msu.edu, bitnet: morrissey@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.]

"Workshop on the Future Directions in Physics at Hadron-Beam Facilities at *Higher Energies.*" A one-day workshop is being jointly organized by LAMPF, BNL, FNAL, IUCF, TRIUMF and the DNP, to be held on Tuesday, Oct 13, 1992 in conjunction with the Santa Fe DNP meeting. This workshop is intended for the community of scientists interested in research opportunities at hadron-beam facilities in the 1 to 150 GeV energy range. The goals of the workshop are to provide the major facilities with an opportunity to describe the physics directions they foresee, and to provide community members with a forum where they can discuss what is needed in the field. Details on the workshop program and meeting location will be announced in a future mailing.

For further information, contact Peter D. Barnes at (505) 667-2000 (pdb@lampf) or John B. McClelland (505) 667-7291 (john@lampf).

# INVITED SPEAKERS OF THE DNP FALL MEETING Santa Fe, NM 15-17 October 1992

The meeting includes seven invited sessions, one of which is a plenary session, another of which is a joint session with the Division of History of Physics. All sessions are in the Sweeney Convention Center. The invited sessions are on the first floor in the Main Auditorium. The exception is the joint session BB, which is in Room 1.

# 15 October 9:00 Thursday Morning

# AA. Modification of Physical Processes in the Nuclear Medium, M. Strikman, presiding.

- R. McKeown (Caltech), "Color Transparency in (e,e'p) at High Momentum Transfer"
- M. B. Johnson (LANL), "Parity Violation in Nuclei from Neutron Resonance Scattering"
- E. K. Warburton (BNL), "Renormalization of the Axial-Charge in Nuclei"
- G. E. Brown (State University of New York, Stony Brook), "Effective Lagrangians in a Dense Medium"

# 13:30 Thursday Afternoon

# PA. Many-Body Problems with Connections to Nuclear Structure, W. C. Haxton, presiding.

- S. A. Kivelson (UCLA), "Global Phase Diagram in the Quantum Hall Effect"
- V. V. Kresin (LLNL), "Metallic Clusters and Nuclear Physics Models"
- G. F. Bertsch (Michigan State University), "Single-Particle and Collective Motion in Buckyballs"

# 16 October 9:00 Friday Morning

# BA. New Results in Electromagnetic Physics, A. M. Bernstein, presiding.

- C. N. Papanicolas (University of Illinois at Urbana-Champaign), "Fifth Structure Function Measurements: Out-of-Plane Physics Inaugurated"
- A. K. Thompson (Harvard University), "The Scattering of Polarized Electrons from Polarized <sup>3</sup>He: First Experiments and Implications for the Measurement of GE<sub>n</sub>"
- R. Schiavilla (INFN), "A Fresh Look (e,e') Scattering from Light Nuclei"
- P. E. Bosted (The American University), "Measurements of  $G_{En}$ ,  $G_{Mn}$ , and  $G_{N\Delta}$  from Inelastic Electron Scattering from the Deuteron up to  $Q^2 = 4$  (GeV/c)<sup>2</sup>"
- N. L. Rodning (University of Alberta),
  "Multi-Hadron Final States Observed
  with Tagged Photons in a Large
  Acceptance Detector"

# 9:00 Friday Morning (DHP/DNP) Joint Session, Room 1 BB. Birth of the Nuclear Age 50 Years Ago, Part II. Some 1942 Preludes to Los Alamos, R. W. Seidel, presiding.

- H. T. Richards (University of Wisconsin), "Some 1942 Fast Neutron Measurements at Rice and Minnesota"
- J. L. McKibben (LANL), "Accelerator Developments and Fast Neutron Scattering Studies at Wisconsin"
- A. O. Hanson (University of Illinois), "Instrumental Developments and Fast Neutron Fission Studies at Wisconsin"
- L. D. P. King (Santa Fe), "Early Measurements at Purdue of some Fusion Reaction Cross Sections"
- R. Serber (Columbia University), "Theoretical Studies (1942) at Berkeley"

# 13:30 Friday Afternoon

# CA. Mesons, Solitons and Quarks in Nuclei, J. Wambach, presiding.

T. Cohen (Maryland), "The Pion Cloud in Various Approaches to QCD"

- N. Snyderman (LLNL), "Properties of the Deuteron from the Semiclassical Quantization of B=2 Chiral Solitons in the Skyrme Model"
- A. Picklesimer (LANL), "The Triton: An Unresolved Problem"
- X.-N. Wang (Duke University), "Hard and Semihard Processes in the Preequilibrium Stage of Ultrarelativistic Heavy Ion Collisions"

# 17 October 9:00 Saturday Morning

# DA. Beta Decay and Solar Neutrinos, J. A. Becker, presiding.

- D. Wells (University of Washington), "A Comparison of  $^{37}Cl(p,n)$  Cross Sections to  $^{37}Ca$   $\beta$ -decay"
- F. Bosch (GSI), "First Direct Observation of β-Decay Into Bound Electron States"
- J. L. Vuilleumier (University of Neuchatel), "A Search for the Neutrinoless Double Beta Decay of <sup>136</sup>Xe"
- W. Hampel (Max-Planck-Institut f. Kernphysik Heidelberg, Germany), "The Gallex Solar Neutrino Experiment"
- J. F. Wilkerson (LANL), "Latest Results from the Soviet-American Gallium Solar Neutrino Experiment"

## 13:30 Saturday Afternoon

# EA. Exotic Nuclear Structure and Reactions, R. R. Betts, presiding.

- B. M. Sherrill (MSU), "The Nature of Nuclear Halos"
- F. D. Becchetti (University of Michigan), "Nuclear Reactions Studied with Low-Energy <sup>6</sup>He, <sup>7</sup>Be, <sup>8</sup>Li and Metastable Radioactive Beams"
- T. Motobayashi (Rikkyo University),
  "Coulomb Breakup Measurements for
  Determination of Astrophysical (p,γ)
  Reaction Rates"
- M. Brinkman (LLNL), "Shape Coexistence in Lead: Oblate and Near-Oblate Collectivity"

# A. Wuosmaa (ANL), "Search for Exotic Cluster States in <sup>24</sup>Mg"

# EPITOME OF THE DNP FALL MEETING Santa Fe, NM 15-17 October 1992

Chairpersons are in parentheses. Names without initials indicate invited speakers. All rooms are in the Sweeney Convention Center or the Eldorado Hotel. The Main Auditorium and Rooms 5 and 6 are on the first floor and Rooms 1, 2A, 2B, 3, 4A, and 4B are on the second floor of the Sweeney Center.

# 14 October 18:30 Wednesday Evening

**Welcoming Reception**, Anasazi Ballroom of the Eldorado Hotel.

# 15 October 9:00 Thursday Morning

- AA Modification of Physical Processes in the Nuclear Medium. McKeown, Johnson, Warburton, Brown. (M. Strikman) Main Auditorium.
- **AB** Astrophysics. (C. Johnson) Room 1.
- AC Few Nucleons: Electromagnetic Effects, Spin Dependence, Relativistic Effects, and Quarks. (B. Gibson) Room 2A.
- AD Theory I: Structure, Mean Field, IBA. (V. A. Madsen) Room 2B.
- **AE** Heavy-Ion Reactions I: Low Energy. (L. G. Moretto) Room 3.
- **AF** Nuclear Polarization. (C. Goodman) Room 4A.
- AG Nuclear Structure I: Radioactive Beams and A<20. (M. Nitschke) Room 4B.
- AH Heavy-Ion Reactions II: Relativistic Energies. (H. G. Ritter) Room 5.

# 13:30 Thursday Afternoon

PA Plenary Session: Many-Body Problems with Connections to Nuclear Structure. Kivelson, Kresin, Bertsch. (W. C. Haxton) Main Auditorium.

# Thursday Evening

- 16:30 HHIRF Users' Group, Room 1
- **16:30 GAMMASPHERE Users' Group**, Room 2
- 16:30 CEBAF Users' Group, Room 3
- 16:30 LAMPF Users' Group, Room 4
- 17:00 CSWP Reception hosted by Bunny Clark held in the Zia Room of the Eldorado Hotel
- 18:00 88-INCH Users' Group, Room 2
- 18:00 ISL Users' Group, Room 5

# 16 October 9:00 Friday Morning

- BA New Results in Electromagnetic Physics. Papanicolas, Thompson, Schiavilla, Bosted, Rodning. (A. M. Bernstein) Main Auditorium.
- BB Birth of the Nuclear Age 50 Years Ago, Part II: Some 1942 Preludes to Los Alamos. Richards, McKibben, Hanson, King, Serber. (R. W. Seidel) Room 1.
- **BC** Weak Interactions. (P. Herczeg) Room 2A.
- BD Theory II: Quarks and QCD. (W. Bauer) Room 2B.
- BE Heavy-Ion Reactions III: Fragmentation. (M. B. Tsang) Room 3.

- **BF** Instrumentation I: Detectors. (C. Morris) Room 4A.
- **BG** Nuclear Structure II: 40<A<150. (D. Vieira) Room 4B.
- BH Heavy-Ion Reactions IV: Ultra-Relativistic Particle Production. (C. Gruhn) Room 5.

# 13:30 Friday Afternoon

- CA Mesons, Solitons and Quarks in Nuclei. Cohen, Snyderman, Picklesimer, Wang. (J. Wambach) Main Auditorium.
- CB Nuclear Structure from Gamma-Ray Spectroscopy. (M. Halbert) Room 1.
- CC Neutrinos. (G. Stephenson) Room 2A.
- CD Theory III: Structure, Models, IBA. (K. Heyde) Room 2B.
- **CE** Neutron Physics. (L. F. Hansen) Room 3.
- CF Pion Charge-Exchange Reactions. (M. Cooper) Room 4A.
- CG Instrumentation II: Spectrometers. (E. Hjort) Room 4B.
- **CH Optical Model**. (W. G. Love) Room 5.

## 16:00 Friday Afternoon

**PB** Town Meeting. Ball, Hendrie, Lightbody (W. C. Haxton) Main Auditorium.

## Friday Evening

17:30 ATLAS Users' Group, Room 1

- 17:30 NSCL Users' Group, Room 2
- 17:30 Bates Users' Group, Room 3
- 17:30 RHIC Users' Group, Room 4
- 17:30 IUCF Users' Group, Room 5
- 17:30 KAON Users' Group, Room 6
- 19:00 Reception, Grand Corridor and Courtyard of the Eldorado Hotel
- 20:00 Banquet, Anasazi Ballroom of the Eldorado Hotel

# 17 October 9:00 Saturday Morning

- DA Beta Decay and Solar Neutrinos.
  Wells, Bosch, Vuilleumier, Hampel,
  Wilkerson. (J. A. Becker) Main
  Auditorium.
- **DB** Nucleon Charge-Exchange Reactions. (S. Grimes) Room 1.
- DC Neutron Physics: Fission. (A. Gavron) Room 2A.
- DD Theory IV: Quarks and High Density Nuclear Matter.
  (D. Madland) Room 2B.
- **DE Pion-Nucleus Reactions**. (M. Leitch). Room 3.
- DF Instrumentation III: Accelerators and Polarization Experiments. (W. K. McFarlane) Room 4A.
- DG Nuclear Structure III: 150<A<190. (M. Stoyer) Room 4B.
- DH Heavy-Ion Reactions V: Ultra Relativistic, Collective, and Low Energy Properties. (H. C. Britt) Room 5.

13:30 Saturday Afternoon

- EA Exotic Nuclear Structure and Reactions. Sherrill, Becchetti, Motobayashi, Brinkman, Wuosmaa. (R. R. Betts) Main Auditorium.
- **EB** Pion-Nucleon Reactions. (J.-C. Peng) Room 1.
- **EC Electron Scattering**. (F. Dietrich) Room 2A.
- **ED** Theory V: General. (D. J. Millener) Room 2B.
- **EE Proton- and Photon-Induced Reactions.** (P. G. Roos) Room 3.
- **EF** Nuclear Structure IV: A≥190. (B. McHarris) Room 4A.

TOPICS AND SPEAKERS FOR THE WORKSHOPS
TO BE HELD 14 OCTOBER AT THE SWEENEY CONVENTION CENTER IN CONJUNCTION WITH THE DNP FALL MEETING

## **WORKSHOP A**

NEUTRONS - THEIR USE IN NUCLEAR REACTIONS AND FUNDAMENTAL SYMMETRY STUDIES Wednesday, 14 October 1992 Room 1, Sweeney Convention Center

Organizing Committee: A. Gavron, P. W. Lisowski, J. R. Nix and J. F. Wilkerson

Intense neutron sources are now available and are being utilized for diverse physics research projects. This workshop will present a sample of experiments using neutrons from such sources. These experiments include fundamental symmetry studies and nuclear reaction studies. The present experiments should serve as a background for discussions of future endeavors at suitably upgraded neutron sources.

### **SESSION 1**

Chairperson: E. Henley, University of Washington

9:00 WA1 The Beta Asymmetry of the Neutron,

S. J. Freedman, *University of California*, *Berkeley* 

**9:36 WA2** The Determination of the Neutron Lifetime, G. Greene, *NIST* 

10:12 Break

10:45 WA3 Measurement of the Electric Dipole Moment and Parity Non-Conserving Spin Rotations of the Neutron, B. R. Heckel, *University of Washington* 

**11:21 WA4 Neutron Interferometry**, S. A. Werner, *University of Missouri* 

11:57 WA5 Searches for Physics Beyond the Standard Model using the Neutron - an Overview of the Theory,

P. Herczeg, Los Alamos National Laboratory

12:33 Break

**SESSION 2** 

Chairperson: S. Austin, M.S.U.

14:00 WA6 Study of Parity and Time Reversal Symmetry Violation using Polarized Epithermal Neutrons, S. H. Yoo, Los Alamos National Laboratory

14:36 WA7 Neutrons as a Probe in Charge Exchange Reactions - an Overview, J. Rapaport, *Ohio University* 

15:12 Break

15:45 WA8 Nuclear Few-Body Systems at Low Energies: A Laboratory for Testing Two- and Three-Body Nucleon Forces, W. Tornow, Duke University

16:21 WA9 Low Energy Experiments on the Electric Charge Structure of the Neutron, J. Schmiedmayer, M.I.T.

**16:57 WA10 Neutrons in Astrophysics - Scenarios and Implications**, F. Kaeppeler, *Kernforshungszentrum Karlsruhe*, FRG.

## **WORKSHOP B**

NEW VISTAS IN PHYSICS WITH HIGH-ENERGY PION BEAMS Wednesday, 14 October 1992 Room 3, Sweeney Convention Center

Organizing Committee: C. B. Dover, B. F. Gibson, J. B. McClelland and S. J. Seestrom

The goal of the workshop is to provide an overview of the physics opportunities that will be created by high-quality, intense pion beams with energies up to about 1 GeV. Topics to be explored include hypernuclear structure studies using the  $(\pi,K)$  reaction, hyperon-nucleon scattering including polarization, high-energy pion-nucleus reactions such as absorption and double charge exchange, baryon resonance investigations, and decays of the pi and eta mesons. The present status of high-energy pion beamlines and instrumentation as well as new directions in the field will be discussed.

SESSION 1 Chairperson: A Gal

**9:00 WB1 Physics Opportunities with Higher Energy Pion Beams,** C. B. Dover, *Brookhaven National Laboratory* 

**9:25 WB2 (π,K) Physics,** D. J. Millener, *Brookhaven National Laboratory* 

**10:05 WB3 Low-Momentum Λ-proton Scattering,** R. Ransome, *Rutgers University* 

10:30 Break

**SESSION 2** 

Chairperson: D. Dehnhard

**11:00 WB4 High-Energy Pion-Nucleus Scattering at LAMPF,** C. L. Morris, *Los Alamos National Laboratory* 

**11:30 WB5 The KEK High-Energy Pion Program,** T. Fukuda, *University of Tokyo INS* 

**12:00 WB6 Hadron Dynamics in High-Energy Pion-Nucleus Scattering,** M. B. Johnson, *Los Alamos National Laboratory* 

12:30 Lunch

SESSION 3 Chairperson: D. R. Gill

**14:30 WB7 Eta Physics,** B. M. K. Nefkens *University of California, Los Angeles* 

**15:00 WB8 Pion Beta Decay,** W. K. McFarlane *Temple University* 

15:30 Break

**16:00 WB9 Baryon Resonances,** D. M. Manley, *Kent State University* 

**16:40 WB10 High Energy Pion Beams: Problems and Prospects,** R. E. Chrien, *Brookhaven National Laboratory*