

The Village Courier



national accelerator laboratory

Operated by Universities Research Association Inc.
Under Contract with the United States Atomic Energy Commission

Vol. 5 No. 2

January 11, 1973

TOPICAL CONFERENCE PROVES POPULAR HERE

The first in a series of topical conferences arranged by the NAL Theoretical Physics Group brought 125 participants to the Laboratory on Friday and Saturday, December 8 and 9. Topic for this session was "Quarks and Partons: What Good Are They?" The word "parton" was coined a few years ago by R.P. Feynman of Cal Tech, a featured speaker at the conference, to describe point-like particles that are possible constituents of protons, the particles accelerated at NAL. "Quarks," originally proposed by Gell-Mann and Zweig in 1963, as building blocks for protons and other particles in order to correlate certain observed patterns or symmetries, and so far unseen as separate entities, may be related to or be the same as partons. As the title of the meeting implies, there are questions in the minds of some physicists as to the reality and usefulness of both partons and quarks. The purpose of the conference was to marshal the evidence in support of these concepts and to discuss experimental means of testing the hypotheses further.



...R.P. Feynman (R) and H. Abarbanel
at blackboard session following
topical conference...

The format for the meetings featured a review of the topic from an experimental viewpoint, followed by a panel discussion, then a review of the salient theory, followed by another discussion. B. Barish (Cal Tech) presented the experimental review talk on Friday afternoon, and a panel led by T. Yamanouchi (NAL) and including E. Paschos (NAL), H. Frisch (University of Chicago), P. Freund (University of Chicago) and D. Miller (Northwestern University) questioned Barish followed by active audience participation. On Saturday morning, Feynman spoke to the group, and a panel chaired by S.D. Ellis (NAL) with J. Cronin (University of Chicago), M. Kislinger (also of Chicago), A.D. Krisch (University of Michigan) and C. Quigg (NAL/Stony Brook) led group discussion.

Dinner served in the NAL Cafeteria on Friday evening offered further opportunity for informal exchanges by participants.

According to Henry D.I. Abarbanel of the NAL Theoretical Physics Group, who organized the conference with T. Sanda, this meeting and succeeding topical conferences will help to stimulate a center in the Midwest at NAL for the exchange of communications between theorists and experimentalists. The informal no-invitation basis of attendance brought persons most interested in the subject at hand, according to Abarbanel. There will be no proceedings issued.

"The two talks focused directly on experimental measurements that are crucial to the ideas of parton and quark models, particularly the ideas that link partons directly with quarks," reports Abarbanel. "In some sense nothing brand new was developed, but the pedagogical value of the focus on key issues was very significant. Feynman's discussion of photon-hadron interactions in front of experimentalists doing the work, at a time when new experimental data are being analyzed, was very important."

"The format of one lengthy and comprehensive presentation at each session, rather than a series of shorter papers covering different aspects, seemed to work well," reports J.D. Jackson who heads the Theoretical Physics group. "The invited speaker had time to develop the subject logically and coherently and at a reasonable pace."

A second topical conference (on diffractive phenomena) is being planned for early March, 1973. Attendance again will be on a first-come, first-served basis in response to the general announcement to be issued soon. Inquiries may be directed to the NAL Theoretical Physics Group, P.O. Box 500, Batavia, Illinois 60510.

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CRIER TO FEATURE NEW SERIES

A number of NAL employees have expressed an interest in learning what others at the Laboratory are doing in different areas which may be miles apart on the 6,800-acre site. As the Laboratory's facilities and offices become permanently located, communications and efforts will be more successful among all those working at NAL if everyone has some understanding of what each group or section is trying to accomplish.

Moreover, it is the hope of the Laboratory that many, many people outside the Laboratory will also enjoy the exciting search for knowledge that will take place here; that they will be close to the 21st century intellectual explorations that are the primary feature of the NAL purpose, and that they will understand the integrated concept of the NAL site where physics, architecture, people, and nature are combined into an exciting, meaningful experience.

Over the next few months, The Village Crier will publish a series of articles describing in straightforward, non-technical terms, the various parts of the accelerator itself, something of the background which prompted the construction of the Laboratory by the United States, and a description of the experimental program. The series will be printed as an added page of The Crier so that the articles can be saved for reference.

Questions prompted by reading of the series will be welcome. They may be sent to the Crier Editor, Margaret Pearson, at any time, addressed to the NAL Public Information Office. The most relevant will be published with appropriate answers as part of the series. Questions may be technical or non-technical in nature, the only aim being to disseminate further information about NAL. Plans call for the whole effort to be used as a booklet which will introduce the Laboratory to visitors in the future.

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GET YOUR SKATES OUT, THE SEASON'S SHORT

Ice on the waters of the NAL site is in nearly ideal condition for skating at the present time. Skating is not permitted on the Main Ring ponds or in any construction area, and an adult should accompany every group to check safety of the ice. The Phillips Pond, behind the DUSAF building on old Batavia Road, is generally considered to be the best location.

NALREC is sponsoring a Family Skating party on Saturday, January 24, from 1 to 4 p.m. at the Phillips Pond. Hot chocolate and coffee will be served and a bonfire will be provided for roasting weiners. Employees, their families and visiting experimenters' families are all welcome.

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DATES HAVE BEEN ANNOUNCED...for NALREC's 1973 Arts and Crafts Show, March 5-9. Denise Augustine, Neutrino Section, chairman of the event, extends an invitation to employees and families at NAL, AEC, DUSAF, B&H Janitorial and Advance Security to prepare their entries early. Applications will be sent out at a later date; all entries will be welcome. Call Denise at Ext. 3791 for further information.

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...The pleasant atmosphere of the NAL site became known to the area muskrat population last Fall. Literally hundreds of the distinctive huts dotted the waters of the NAL site. Pictured in the photo above at right is an M-structure, some five feet tall, in a pond in the Village.



Then there's the enterprising couple who will spend the winter in the warmer waters inside the Main Ring, in the B13 sector pond. (Photo at lower right.)

The muskrats will stay hidden under the icy crust during the winter, feeding on vegetation under the water. A few were seen recently for a short time on the banks of the swamps beside Batavia Road, basking in the noon day sun...



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CHESS CLUB MEETING SCHEDULE ANNOUNCED

NAL's four-man team in the Chicago Industrial Chess League finished the first half of their first season in the league with a record of 2½ wins and 3½ losses, an excellent beginning, according to Team Captain John Stull. John also reports that John Nelson (Accelerator Section) played a brilliant game on December 20 in C.I.C.L. play, ending the game in 25 moves. "It was worthy of a Grand Master," John Stull says.

The Chess Club is making every effort to arrange meeting dates to accommodate shift schedules in order to attract more members. The January social night schedule is: Thursday, January 11; Wednesday, January 17; Thursday, January 25; Wednesday, January 31. Call John Stull, Ext. 3712 for further information.



...NAL Chess Club officers (L-R): J. Stull, Team Captain; W. Ganger, Vice-President; H. Pfeffer, President; R. Parry, Secretary-Treasurer...

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FIRST HALF OF BOWLING COMPETITION ENDS

Joel Misek (Internal Target Section), Bowling League secretary, reports that close competition ended the first half of the season with the "What-U-C" team ending up as the first-half-champs. Team members include Mike Wilks (Accelerator Section), Jim Edwards (Technical Services), Theo Gordon (Accelerator Section), Susan Misek (Research Services), and Jim Schluchter. The "What-U-Cs" edged out the "Jumpers" on the final night by ½ of a game, which qualifies the team to meet the second-half champs for the season's championship on the final night of bowling for the season next April.

High handicapped individual series for the first half was turned in by Norm Hill (Material Supply), with a 642. High handicapped game was rolled by Ron Slater, with a 248.

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OH WHERE CAN THEY BE?

NAL's Housing Office is trying to locate houses that are or will be available for rent by NAL's visiting experimenters and their families. A few houses are needed now, and many more will be required during the coming summer months. Anyone knowing of houses for rent within a commuting distance of the Laboratory should call the NAL Housing Office, 840-3560.

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EVENING CAFETERIA SERVICE OPENS

Nearly fifty people showed up on January 2nd to open the new evening service at the NAL Central Laboratory Cafeteria. A choice of one or two hot meals is now offered between 5 p.m. and 1 a.m., as well as ala carte items.

A Cafeteria Committee appointed by the Director is now considering and recommending improvements and plans for future cafeteria operations. Members of this Committee are: Lee Teng, Accelerator Section (chairman); J. Campbell, Business Office; T. Nash, Proton Section, and R. Carrigan, secretary. They would be pleased to have the suggestions of employees and visitors at this point in their deliberations.

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AIP PUBLISHES 1972 REPORT

"Physics in 1972," published by the Public Information Division of the American Institute of Physics is now available at \$1.00 per copy, "...a summary of some interesting, exciting, and important activities..." Gerald Present notes in his introduction. High Energy Physics topics in the report include First Experiments at the National Accelerator Laboratory, New Theory of Weak and Electromagnetic Interactions, and Storage Rings. Nine other aspects of science activity are included in this AIP report. Write to the Public Information Division, American Institute of Physics, 335 East 45th Street, New York, N.Y. 10017 for copies.

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"THE WHITE SHEIK" AT NAL FRIDAY, JANUARY 12

Fellini's favorite theme, the shoddy reality behind show business glamour, is seen clearly in his 1952 film, "The White Sheik," to be shown Friday, January 12 at the NAL Village Barn at 8 p.m. As in his other films, the crucial moment comes when characters must face themselves in the cold dawn after a long, difficult night of reality. "...a lively comedy...fresh, tender, naturalistic...an affectionate satire," reviewers have said.

Employees, their families, visiting experimenters, and their guests are welcome. ADMISSION IS \$1.00.

NAL FAMILY AFFAIRS

...Robert and Lauralynn Pighetti became the parents of baby Leah Ann on December 12. Leah Ann weighed 8 lbs. 5 oz. when she was born at the Loyola University Medical Center. Bob works in NAL's Internal Target Section.

...Norva Marshall Barnett moved to Beloit, Wisconsin following her marriage on December 16 at the LaGrange Community Center. Norva worked in NAL's Mail Room, starting early in 1968.

...Diane Burchett (Switchboard) became Mrs. Douglas Holmes, Jr., upon her marriage on December 9 in Montgomery, Illinois.

...Francine Pisarek of the Visitors Center and David Nease are engaged to be married. The wedding will take place May 12 at St. Matthews Church in Glendale Heights. David is from Erie, Pa.; he is a graduate student at Cornell University doing research at NAL toward a doctorate in physics.

...Lee and Barbara (Internal Target Section) Perington spent their first wedding anniversary in Springfield, Illinois where Lee was admitted to the practice of law in Illinois. He was also admitted to the Federal bar in December.

...Roy Justice of NAL's Physics Department and a member of the Protons Basketball team, and Jewel Anderson are engaged to be married. The wedding will be January 27 at Holy Cross Church in Batavia.

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FEBRUARY 2 THEATER TICKETS AVAILABLE

NALREC is selling tickets for the Friday, February 2 performance of "No, No, Nanette," the musical production currently at the Shubert Theater, Chicago. Located on the main floor, the seats sell for \$9.00 each. Call Marilyn Paul (Research Services, 31 Blackhawk), Ext. 3454 for further information.

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!!! REMEMBER, CREDIT COSTS LESS AT YOUR CREDIT UNION!!!

CLASSIFIED ADS

FOR SALE - 1970 Monte Carlo, p/s, p.d.b., a.c., vinyl top, \$2100 loan value. Will sell for \$2300. Call James Edwards, Ext. 3435 or 879-5189.

FOR SALE - 1969 Ford Ranch Wagon w/air, power/str/disc/brakes. \$1100 or best offer. Call D. Miller, Ext. 3737 or 815-436-6701.

FOR SALE - 1967 Chevy-Super Sport, p/s., auto. Very clean-\$800 or best offer. Call B. Kolar, Ext. 3236 or 815-436-3963.

FOR SALE - 1963 Buick Special, \$100. Honest, sincere car. No beauty, runs good. Call Cathi, Ext. 3701.

FOR SALE - Knight KG650 R.F. signal gen., \$15; Post Pavatilt portable drafting table-\$20. Call K. McCabe, Ext. 3377.

FOR SALE - White metal kitchen cab. set w/sink-\$95; Universal gas stove, \$25; wedding gown & veil (size 10) \$50; ladies ice skates, size 8-\$5. Call T. Ulijasz, Ext. 3775 or 653-3887.

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The Village Crier is published by the Public Information Office of the National Accelerator Laboratory. Margaret M.E. Pearson, Editor. Correspondence may be directed to the address below. Telephone number of the Laboratory is 312 840-3000.

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Batavia, Illinois 60510

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