

The Village Crier

 national accelerator laboratory

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February 25, 1971

72 NAL STAFF MEMBERS TO TAKE PART IN MAJOR MEETING

Some 72 members of the NAL staff will take part in the 1971 Particle Accelerator Conference to be held at the Pick-Congress Hotel in downtown Chicago Monday, March 1, through Wednesday, March 3.

Lee C. Teng, Accelerator Theory, is Program Chairman. Dr. M. Stanley Livingston, of Santa Fe, N.M., who retired recently as Associate Director of the National Accelerator Laboratory, will preside at the plenary session Monday morning. It will include a talk by Robert R. Wilson, NAL Director, entitled, "An Engineer Looks at High Energy Physics."



LEE C. TENG

Members of the NAL staff who have been invited to participate in the Conference include:

J.E. Griffin and Q.A. Kerns, NAL Main-Ring Accelerating Cavity Test Results; Kerns and H.W. Miller, 100 kW RF Power Amplifier; T.L. Collins, member of panel discussion, Computer Control; M. Birk, R. Ducar, Q. Kerns, and G. Tool, The RF Control System of the NAL Accelerator; L.A. Klaisner, The NAL Booster Control System.

D.E. Young, Initial Performance of the NAL 200 MeV Linear Accelerator; R. W. Fast and J.R. Heim, NAL, and J. Dao and T.A. Cole, Airco Temescal Division, Superconducting 3.5 Tesla, 3 Meter Prototype Bending Magnet; D. Theriot, K. Lee and M. Awschalom, Muon Shielding Calculations for 200-GeV Proton Interactions; D.C. Carey, R.J. Stefanski, L.C. Teng, Wide-Band Neutrino Beams with Quadrupole Focusing; H. Hinterberger, J. Satti, C. Schmidt, R. Sheldon, and R. Yamada, Bending Magnets of the NAL Main Accelerator.

R. Cassel and H. Pfeffer, The Power Supply System, Control and Response of the NAL Main Accelerator; E. Malamud, Status of the 500 GeV Accelerator; R. Billinge, Q. Kerns, et al., Initial Operation of the NAL Booster; J.A. MacLachlan, Jr., T. Borak, L.C. Teng, NAL, and F.C. Shoemaker, Princeton, Beam-Abort System for the NAL 500 GeV Synchrotron; C.H. Rode, R. A. Andrews, A.W. Maschke and R.M. Mobley, Design of the 500 GeV Slow Extracted Beam and Proton Beam Lines.

W.W. Lee and L.C. Teng, Beam Bunch-Length Matching at Transition Crossing with Space-Charge Forces; Q.A. Kerns and B.R. Sandberg, The RF Ferrite-Testing Program at NAL; R.A. Dehn, Q.A. Kerns, and J.E. Griffin, Mode Damping in NAL Main Ring Accelerating Cavities; F.F. Cilyo and Q.A. Kerns, A Solid State Contactor for Use in 500A, 480V and 3 ϕ Service; C.A. Swoboda and A.W. Maschke, Oscilloscope Waveform Digitizer.

F. Hornstra, NAL, and M. Knott, ANL, On-Line Computation and Presentation of External Proton Beam Line Targeting Information; L.A. Klaisner, P. Mellick, K. Rich, S.R. Smith, and M. Storm, Central Control System for the NAL Accelerator; D.F. Sutter, A Multiplexed Control System for the NAL Main Accelerator; W.H. DeLuca, R.E. Daniels, K. P. Sowinski and C.A. Swoboda, The National Accelerator Laboratory Beam Transport Modular Control System; M. Atac, High-Resolution Beam Proportional Chambers.

W. Hanson, E. Hubbard, and U. Patel, Booster Vacuum System; M. Awschalom, T. B. Borak, NAL, with W. Fairman, F. Iwami and J. Sedlet, ANL, and C. H. Distenfeld, BNL, The Under-

(Continued on Page 2)

72 NAL STAFF MEMBERS TO TAKE PART IN MAJOR MEETING (Continued from Page 1)

ground-Water Leaching of Radionuclides Produced in Soil by Hadrons Created in High-Energy Proton Interactions; P.J. Gollon and M. Awschalom, Design of Penetrations in Hadron Shields; T.B. Borak and A. Vanginneken, Beamstop Experiment at 29.4 GeV; M. Awschalom, T. Borak, H. Howe, R. Shafer, D. Theriot, and F. Schamber, Novel Instrumentation for Radiation Monitoring at NAL.

Y.W. Kang, A. Roberts and D. Theriot, NAL, with S.L. Meyer, Northwestern University, Muon Shielding for a 500-GeV Neutrino Facility; F.A. Nezirick, A Monoenergetic Neutrino Beam Using Current-Sheet Focusing Elements; G. Hill, E. Laukant, and R. Sheldon, NAL, with G.B. Stapleton, Rutherford High Energy Laboratory, The Use of Radiation-Sensitive Materials on High-Power Accelerators; S.C. Snowdon, Magnet Profile Design; H. Hinterberger, S. Pruss, J. Satti, J. Schivell, C. Schmidt, and R. Sheldon, Quadrupole Magnets of the NAL Main Accelerator.

J. Schivell and C. Schmidt, Use of Subsurface Voids for Offsetting Saturation Effects in Quadrupole Magnets; E.R. Gray, Beam-Emittance Measurements on the 200-MeV Linac; R. Billinge and E.L. Hubbard, et al., Injection into the 8 GeV Booster Synchrotron; J.D. McCarthy, R.E. Daniels, R.F. Nissen and E.B. Tilles, The Fast Kicker Systems for Booster Extraction and Main Ring Injection at National Accelerator Laboratory; A.T. Visser and R.F. Nissen, Pulsed Septum Magnet and Power Supply for the 8 GeV Beam Transfer Line at the National Accelerator Laboratory.

J. Schivell and C. Schmidt, Alignment Techniques for the NAL Main Accelerator; H. Feng, E. Malamud, D. Sutter, J. Schivell, and R. Yamada, Injection Study of the NAL Main Accelerator; S. Ohnuma, A Study of the One-Third Resonance Extraction for the 200 GeV Accelerator; E.B. Tilles, J.D. McCarthy and R.F. Nissen, Conductive Coating for Ceramic Beam Tubes; A.G. Ruggiero, Beam Debunching; J.G. Kohr, MIT, B.P. Strauss, NAL, and R.M. Rose, MIT, Development of a New Practical High-Tc Superconducting Conductor Material.

T.L. Collins will also act as chairman of the SYNCHROTRONS session at 9:00 a.m. on Wednesday, March 3.

SIGNS OF THE ZODIAC -- AND CORNED BEEF!!

Mark Saturday, March 20, 1971 on your calendar. That is the date when NAL will hold "Discotheque 1971, Under the Sign of the Zodiac." The place will be the NAL Village Barn; the time, from 9:00 p.m. to 1:00 a.m. For entertainment, "A-Go-Go Girls," and a disc jockey will be on hand to provide jazz, rock, and the sounds of today. Refreshments will include ham, corned beef, potato salad and cheese plate. Beer and mixes will be provided. For further information, call Jimmy Jenkins, Ext. 521.

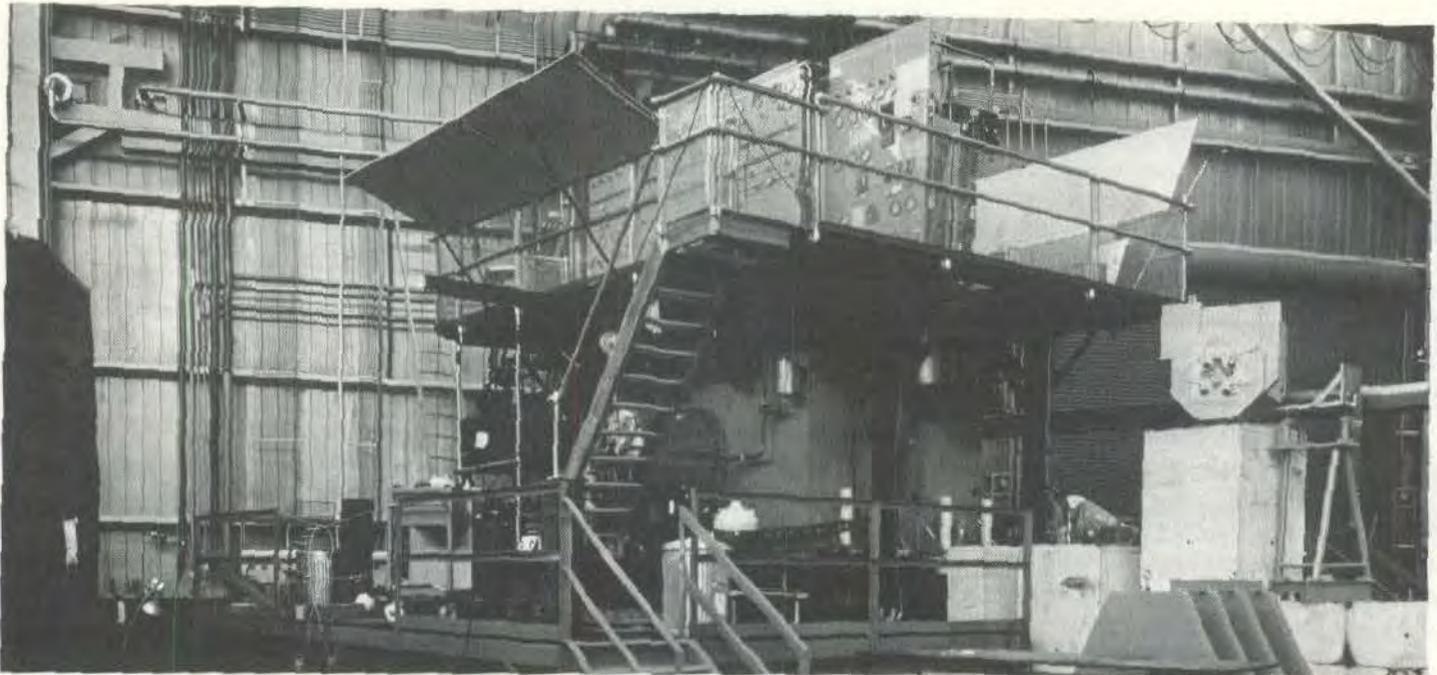
INCOME TAX FORMS AVAILABLE

Income tax payment time is approaching, with the deadline of April 15. Federal and state tax forms that are generally used are available from Mrs. Mildred Meyer, Personnel. You may pick up the forms at 22 Sauk, NAL Village.

REMINDER: The deadline for filing applications for the Universities Research Association, Inc., fellowships offered URA and NAL employees' children is Monday, March 1. So far, 10 applications have been received. For details, call Personnel, Ext. 225.

HAPPY HOUR DATES

Here is a list of Happy Hours scheduled in the near future: Thursday, Feb. 25; Wednesday, March 17; Thursday, April 1, and Thursday, April 15. They will be held from 5:00 to 6:30 p.m. in NAL's Village Barn. Call Jeff Gannon, Ext. 467, for details.



...Argonne National Laboratory's 30-inch hydrogen bubble chamber. High energy particles leave "tracks" of tiny bubbles as they pass through liquid hydrogen in this chamber. These tracks are photographed by special high-speed cameras for later analysis by high energy physicists...

Argonne National Laboratory Photo

PLAN TO TRANSFER ARGONNE BUBBLE CHAMBER TO NAL

A recently-concluded agreement between Argonne National Laboratory and NAL will permit scientists to begin bubble chamber experiments at NAL long before all of the NAL experimental facilities are completed.

The agreement calls for the transfer of the Argonne 30-inch bubble chamber to the NAL site.

While the accelerator is expected to produce its first full energy beam this summer, the full experimental facilities will not be completed until later. A 15-foot bubble chamber being specially constructed for the NAL accelerator is scheduled for research in 1972. The staff of Argonne has accepted responsibility for the moving, installation and initial operation of the 30-inch chamber.

The Argonne 30-inch chamber was originally constructed at the University of Wisconsin under the direction of Dr. W.D. Walker. It will be installed in an NAL bubble chamber complex. This will include a large building housing the 15-foot chamber, the 30-inch chamber building and a large control and utility building covered by a geodesic dome.

Dr. William B. Fowler, leader of NAL's bubble chamber group, explained that bubble chambers are versatile experimental tools in the study of the particles that make up the atomic nucleus. He explained that a high energy beam, such as the one to be produced by the 200 BeV accelerator, creates a great number of these particles when it strikes a target. When these particles pass through the super-cold liquid hydrogen in the bubble chamber, they leave tracks which may be photographed and analyzed.

"About half the research being done in the high energy physics field today is being done in bubble chambers," Dr. Fowler stated. "In addition to providing a medium where particle tracks may be viewed in three dimensions, the hydrogen in the chamber provides an excellent target for the study of particle interactions. Since hydrogen is a simple atom, the interactions are relatively easy to interpret," he said.

"When the accelerator reaches full power, many new phenomena will probably be detected," Dr. Fowler stated. "The bubble chamber is ideal for this type of discovery."

REMEMBER THE CANDELIGHT BOWL - Saturday, Feb 27, 9:00 p.m., Bowling Green Lanes in West Chicago - Per Couple: \$5.00.

SKATING, HAYRIDE PARTY TO BE HELD SUNDAY

Hot dogs, marshmallows, coffee, potato chips, hot chocolate, soft drinks, music and a bonfire will be provided free of charge at the NAL Family Skate Night and Hayride to be held near the tennis courts in the NAL Village Sunday, February 28, 1971 from 3:00 p.m. to approximately 7:00 p.m. It will be sponsored by the NAL Social Committee. For further details, please telephone Marilyn Paul, Ext. 453.

ON THE REPAIR OF AUTOS...

Recently, the question has been raised of whether or not it would be possible for employees to work on personal automobiles after hours in Laboratory buildings. With only a few exceptions, the buildings at the Laboratory were not designed for housing vehicles either from the point of view of exhausting fumes or from the point of view of fire hazards. The Laboratory, therefore, had to take the position that, except in case of emergencies, or in the case of specially-designed areas, automobiles should not be brought into Laboratory buildings.

NEWS FROM NALWO

The Spring Tea will be held on Wednesday, March 31, at 1:00 p.m. at the White Farm, in honor of the newcomers of this past year. An interesting program is being planned. Babysitting service will be available.

The NALWO Nominating Committee for 1971-72 is meeting to present a slate of candidates for offices of the Executive Committee -- for chairman, two vice-chairmen (one from NAL, one from DUSAF), treasurer, secretary, chairmen of the activity groups, and editor of the NALWO Bulletin. Nominations should be submitted to members of the Nominating Committee who are: Barbara Williams, 629-0573; Betty Snowdon, 665-4961; Lisa Goldwasser, 665-2081. Nominees will be contacted by the committee to secure consent before placing names on the ballot. Election of the new officers will be held at the annual tea to be held on June 8 at the home of Mrs. Robert R. Wilson.

March meetings of NALWO activity groups will be announced in the next Bulletin.

CLASSIFIED ADS

GIVE AWAY - Black Cock-a-poo, 1 yr. old, good with children. Call Dottie, Ext. 307.

FOR SALE - "A" Frame, 3/4 wooded acre, Lake Wisconsin. Fireplace, air. cond., 3 b.r., bath, kit.-din.-l.r. comb. \$12,500.00. E.H. Scholefield, Ext. 295/381 or 355-0561.

FOR SALE - Ski equipment. 1 pr. Head standard 6'1" skis with Cubco strap in bindings, \$70. 1 pr. women's size 10 boots, \$15. 1 pr. children's size 4 buckle boots, \$7.00. 1 pr. children's size 2 ski boots, \$5. Call Henry Koecher, Ext. 236.

FOR SALE - Buffet & dining table & 4 chairs, \$80; desk, \$35; 2 couches, \$30; arm chair, \$25; cocktail table, \$20; lamps. G. Alloverne, Ext. 505.

FOR SALE - '70 LeMans, pwr. steer, brakes, auto. Take over payments. Larry Grady, Ext. 360.

FOR SALE - Slide projector, Bell & Howell TDC 303 w/extra lamp & 14 30-slide trays. Old-time radios: RCA 46, model AR-596; Brunswick super het mod. 17. Both w/cabinets, w/o speakers. Best offer. R. Ducar, Ext. 271.

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