BROOKHAVEN BULLETIN
Vol. 48 - No. 1 January 7, 1994
BROOKHAVEN NATIONAL LABORATORY

Lance Junker Heads Reactor Division

Lance Junker was appointed Manager of the Reactor Division, effective December 15. He replaced Michael Brooks, who was named Deputy to the Associate Director for Reactor, Safety and Security, M. Sue Davis.

In announcing Junker's appointment, Davis said, "With the present continued growth in ES&H requirements, coupled with budget constraints, competing priorities and ongoing operational matters, we are indeed fortunate to have someone of Lance's caliber to lead the Reactor Division."

In his new position, Junker is responsible for overseeing the operation and maintenance of the High Flux Beam Reactor (HFBR) and the Brookhaven Medical Research Reactor. The Reactor Division has a staff of 137, more than double its size a decade ago.

Junker came to Brookhaven in 1963, after completing a five-year term in the U.S. Navy's nuclear submarine service. He was first hired to work at the Brookhaven Graphite Research Reactor, which was shut down in 1968.

Junker helped plan for the HFBR, which began operations in 1965, and he was appointed to a supervisory position a year later. In 1975, he left Brookhaven to work at the Long Island Lighting Company's Shoreham Nuclear Power Station, then under construction.

In 1979, Junker earned his B.S. degree from Dowling College, and, in the following year, he returned to BNL as an engineer. He performed a variety of duties for the Reactor Division before he was promoted to HFBR Plant Manager in 1989.

"I am pleased to accept this appointment," said Junker. "I will do my best to continue the safe and efficient operation of both reactors. One of my priorities is to return the power level of the HFBR to 60 megawatts (MW). After safety reviews during the reactor's shutdown from 1989-91, the power was cut from 60 MW to 30 MW, but we are resolving the remaining safety issues associated with the higher power level now, so that power can be increased. It is a tribute to the machine that it has at least 250 users, with most of them returning after the two-year shutdown."

Lance Junker

BNL Lecture: Measuring Muons Magnetically — The g-2 Experiment

What is g-2? It's a minute effect with a major impact.

To physicists, g-2 is shorthand for the gyromagnetic ratio of a particle (g) minus two. To physicists involved with the Muon g-2 Experiment (E821) at BNL's Alternating Gradient Synchrotron (AGS), g-2 is a mere 0.1 percent of the magnetism of a muon — but it's a major part.

A muon is an electrically charged particle — essentially an electron but 200 times heavier — that spins on its own axis and acts like a tiny magnet.

If the muon is put into a magnet, then the muon's magnetic axis will precess, or gyrate, much like a spinning top. The rate of this precession is g, the gyromagnetic ratio, and the difference of g from two — g-2 — is the advance of the muon's magnetic axis compared to its direction in a magnetic field.

This provides a measurement of the muon's size — actually the difference between the mass and the charge distributions in the muon — and the E821 team will measure this size to 10^{-18} centimeters, or 1/100,000 the size of a proton.

One of the Brookhaven physicists involved with E821 is Gerry Bunce, AGS Department, who will use the forum of the 293rd Brookhaven Lecture to give his audience a feel for the beauty of this experiment. His talk on "Measuring Muons Magnetically: The g-2 Experiment at BNL," will begin at 4 p.m. on Wednesday, January 12, in Berkner Hall. Bunce will be introduced by Philip Pile, AGS Experimental Planning & Support Division Head.

Gerry Bunce, with a schematic for the 14-meter-in-diameter superconducting magnet for the Muon g-2 Experiment.

As Bunce will explain, the number g-2 is affected by almost every force. Small fluctuations in the electromagnetic field contribute the bulk of g-2, which is 0.001. An interaction between two forces — weak and electromagnetic — is predicted to contribute two parts in a million. To verify this prediction, E821 will measure g-2 to one-third parts per million. In addition, since almost any conceivable force would contribute to g-2, the experiment can confirm or exclude the existence of many possible theories.

To measure the diminutive g-2, the E821 collaborators are building the world's largest superconducting magnet — a ring 14 meters in diameter, which, beginning in 1996, will serve as a storage ring for muons.

Bunce will describe how this ring will sit at the end of a new AGS beam line. The chain of events in that beam line will begin with protons striking a target, thus forming lighter particles called pions, which will decay to muons. Spinning like tops, the muons will be fed into the storage ring's uniform magnetic field, where they will travel in circles.

After each circle, a muon's spin axis will change by 12 degrees, though the particle will continue in the same direction. And, after many such revolutions, the muon will spontaneously decay to an electron (plus neutrinos) in the direction of its spin. One of 24 detectors will "see" each electron, revealing the direction of the muon's spin. And so, g-2 is that angle, divided by the magnetic field the muon goes through in the ring.

To attain the g-2 measurement, Bunce will explain, requires contributions by many people at BNL and elsewhere. To illustrate, he will talk about the ingenious approach one team member took in designing a device essential to injecting the muon beam into the storage ring, but which must be self-contained since the device itself also has a magnetic field that could interfere with the stored muons. And, he will describe the other systems crucial to this experiment — who's working on them, where they stand now, and how they'll all come together to give the world its most precise measurement ever of g-2.

Gerry Bunce took his B.S. in physics at the Massachusetts Institute of Technology in 1967, then went on to the University of Michigan, where he received his Ph.D. in physics in 1971.

Bunce did his postdoctoral work at the University of Wisconsin, then left in 1977 to come to Brookhaven where he joined the AGS Department in 1977, as an associate physicist. After being promoted to physicist in 1979, he was awarded tenure in 1982.

Spin has been a theme in Bunce's work for a long time. His thesis experiment studied a spin effect from scattering deuterons and protons. As a postdoc, he helped discover that hyperons are produced in a polarized state at high energy, and he continued to study this at the AGS. Besides g-2, he is also working on a running AGS experiment, EVA, and a new experiment that will use polarized protons in BNL's Relativistic Heavy Ion Collider.

After the lecture, all are invited to join the speaker for discussion and refreshments. To accompany him to a dinner at a restaurant off site, call Bill Morse, Ext. 3859.

Note to Employees:

Attendance at lectures, meetings and other special programs held during normal working hours is subject to supervisory concurrence.

Congressional Staff Updated on BNL Research

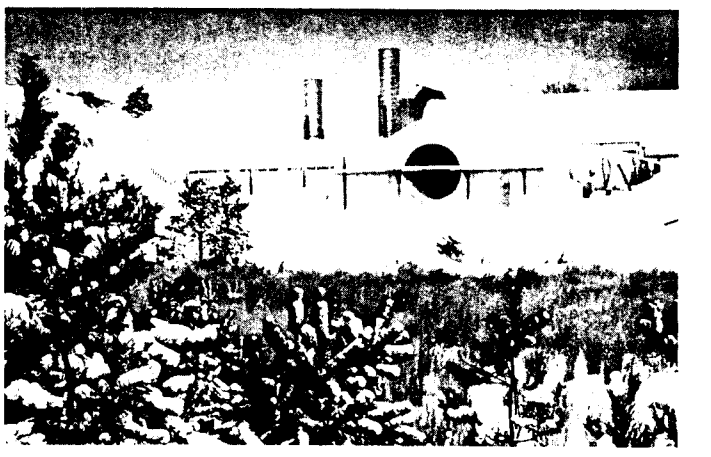
In the U.S. House of Representatives, the Energy Subcommittee of the Science, Space & Technology Committee oversees the basic energy research sponsored by the U.S. Department of Energy, which includes much of the work done at Brookhaven. To update the Congressional members of that subcommittee on the Lab's facilities and operations, two of the subcommittee's staff members came to BNL on December 21: Frank Murray (second from left), who is the Staff Director of the Energy Subcommittee, and Rose Ritts, who is an engineer and an Energy Subcommittee professional staff member. After meeting with Laboratory Director Nicholas Samios, they visited the High Flux Beam Reactor and the National Synchrotron Light Source (NSLS), where they are pictured with NSLS Chairman Denis McWhan (left) and BNL Deputy Director Martin Blume. They also toured the Positron Emission Tomography facility and the Brookhaven Linac Isotope Producer, and they were briefed on Brookhaven's work on the human genome in structural biology, research into global change, and successes in technology transfer.

— Photos in this issue by Roger Stoutenburgh

In Stormy Weather:
Dial 282-INFO*
for information about BNL and the Child Development Center.
*Dial the letter O, *not* zero!

Snow Scenes '94

Snow on Christmas Eve. Snow before New Year's Eve. Snow on Tuesday and more predicted. Do you see a pattern here? Maybe the pattern doesn't mean that we'll see snow every week till spring, but it does mean that photographer Roger Stoutenburgh was able to get some lovely pictures of the patterns that snow and ice have formed so far this year at BNL.



Weight Watchers

Registration for the next Weight Watchers at Work program will be held on Wednesday, January 12, from noon to 1 p.m., in the North Room of the Brookhaven Center.

The program will run for 12 Wednesday sessions, starting January 19 at noon. The fee is $90, with the Lab paying $10 for each participant. Spouses may also attend. For more information, call Mary Wood, Ext. 5923 or 4567.

Arrivals & Departures

Arrivals

Edward N. Beebe ..... AGS
Michael J. Behrenfeld ..... App. Science
Thomas J. Doyle ..... Director's Off.
Markus Kuhn ..... Chemistry
Peter Wochner ..... Physics
Corene Wood ..... Tech. Info. Div.

Departures

This list includes all employees who have terminated from the Laboratory including retirees.

Vincent J. Bilms ..... Fiscal
Joan Congemi ..... App. Science
Renu Doshi ..... Medical
Williams E. Harrison Jr ..... RHIC
Franklin T. Langdon ..... Physics
Edward S. Miezianka ..... Plant Eng.
Joyce C. Montag ..... CCD
Leonard Schieber ..... RHIC
Annamarie Spira ..... Adv. Tech.
Yun Zhang ..... App. Science

BROOKHAVEN BULLETIN

Published weekly
by the Public Affairs Office
for the employees of
BROOKHAVEN NATIONAL LABORATORY

ANITA COHEN, Editor
MARsHA BELFORD, Assistant Editor

Bldg. 134, P.O. Box 5000
Upton NY 11973-5000
Tel. (516) 282-2345; Fax (516) 282-3368

BNL Science Goes On Air

Brookhaven's scientists will take to the airwaves this week, as the Public Affairs Office premieres its new radio program on eight local stations.

The weekly series of one-minute spots goes by the name *Science On Air* and is produced with technical support from the Video Group of the Photography & Graphic Arts Division. It will air at various times during news and public affairs programs on the following stations:

- **WCWP 88.5 FM**, Long Island University, Brookville
- **WKWZ 88.5 FM**, Syosset High School, Syosset
- **WLNG 1600 AM**, 92.1 FM, Sag Harbor
- **WNYG 1440 AM**, Babylon
- **WPBX 91.3 FM**, Long Island University, Southampton
- **WPOB 88.5 FM**, J.F.K. High School, Plainview
- **WWHB 107.1 FM**, Hampton Bays
- **WXRK 92.3 FM**, New York City (K-Rock)

Science On Air seeks suggestions for story topics that you think the general public would be interested in, whether it's a report on recent research or a question answered on general scientific phenomena. Call Kara Villamil, Ext. 5658, with your ideas.

Science On Air
Produced By: Brookhaven National Laboratory Upton, NY

Story Postponed

Due to lack of space, the stories about BNL's 1993 Distinguished Research & Development Awards and Brookhaven Awards have been postponed, but may run next week.

TGIF Social Next Week

On Friday, January 14, celebrate the end of the work week with the BNL Dance Club, at its first Thank-Goodness-It's-Friday informal monthly social of the new year.

From 5:30 to 11 p.m. that evening, all are invited to the North Ballroom of the Brookhaven Center to samba, peabody, tango, waltz, hustle, electric slide, etc. the night away to taped music. Or, bring your own CDs and dance to the music you like. Food and beverages are available at the Center Club.

The club will put the suggested donation of $1 per person toward buying more dance music. For more information, contact Brenda Riddle, social chairperson, Ext. 4524; or co-chair John Millener, Ext. 3853.

Don't Just Hang Up

Over the past three months, just about everyone on site with a telephone has been unexpectedly cut off in the midst of an outside call. Despite repeated checks of the switch and outgoing trunks, the cause of this elusive and intermittent problem has yet to be found.

In an attempt to solve the mystery, FBCS, the contractor that maintains the Lab's telephone system, will have an expert on site next week to further the investigation.

In the meantime, any BNLers who get cut off are requested to call the FBCS office, Ext. 4031, to report the time it occurred, what extension you were using, how long you were speaking before it happened and if it was an outgoing call. These reports will be logged, in an attempt to determine a pattern. Until this problem is solved, your patience and cooperation are appreciated.

Computer Demo

On Monday, January 10, from 10:30 a.m. to 2 p.m., IBM representatives Ken Hammer and Gary Shears will present information about the RS/6000 family of UNIX workstations, and demonstrate CASE tools and visualization software for the RS/6000. Also, Rich Buchwalter from GTSI will demonstrate the IBM Thinkpad laptop computer.

Cooking Exchange

The Cooking Exchange will start 1994 with a special New Year's program on an unusual day and time: Thursday, January 13, at 11:45 a.m. in the Recreation Building. The program will feature a soup and sandwich luncheon, with participants bringing their own sandwiches and the Cooking Exchange providing the soup, etc.

All are invited, especially newcomers and others living in the apartment area. For more information, call Megumi Akiba, Ext. 1061.

Leaving the Lab — After 35 Years or More

Eugene Cronkite

The Bulletin salutes employees who are retiring with 35 or more years of service.

It's amazing how a single memory can stick with you over the years.

Eugene Cronkite, Medical Department, has one from September 1954, when he was finishing his U.S. Navy duty in Europe before joining BNL as a senior physician: In London on his way back to the States, he read a British newspaper report on Hurricane Carol, which had battered the entire east coast of North America.

To this day, Cronkite remembers reading the British account of how Hurricane Carol hit Brookhaven National Laboratory, then went on to topple the steeple of "the Old North Church, where the *traitor* Paul Revere commenced his *infamous* ride [emphasis added!]."

Impressed that BNL had received mention in the London papers, he hurried back to his new home on Long Island, into which his wife Elizabeth and daughter Christina had moved before he left, and began his BNL career on October 1, 1954.

Now, 39 years later and a senior scientist in Medical, Cronkite has retired. The official date was September 30, 1993, but he plans to stay on for a year or two longer to finish remaining research duties. "I enjoy working, tennis, fishing and gardening, and you can only put in so much time on tennis, fishing and gardening," he says.

Eugene Cronkite was already an accomplished medical researcher with an established specialty by the time he reached BNL. While working on the M.D. degree he received from Stanford University in 1940, a professor asked him to study a particular blood disorder, research that led to his first published paper and set the theme for his entire career: blood.

In that vein, he served at diverse naval duty stations, 1942-46. In 1946, he became Head Hematologist at the Naval Medical Research Institute. His tour of duty culminated in a trip to the Marshall Islands to study and treat natives and American service men accidentally exposed to fallout from a nuclear test, work he continued for a brief time after joining BNL.

Ever since that first research in hematology, the science of blood, Cronkite has studied many aspects of the body's blood-production system.

Some research has focused on hematopoiesis, the process by which the blood's cellular components are made. Other projects have looked at what happens when something goes wrong among the several types of cells that combine to make blood function as both a delivery system and an attacker of foreign invaders.

Why study blood? "It is easily accessible for study, without pain, and bone marrow [where most blood cells are made] is also accessible," explained Cronkite, who received tenure in 1955. "And everything in the body gets blood — it's the carrier of good news and bad news."

Going After a Killer

One continuing target of Cronkite's research has been leukemia.

His research into that deadly disease started in the Navy, by developing techniques for the transfusion of platelets and bacteria-attacking granulocyte cells. Early on at BNL, he worked to find ways of irradiating blood outside the body to track the activity of white blood cells, and he probed the ability of certain factors to provoke the body to manufacture leukemia's deluge of white blood cells.

"The objective is to try to understand what happens at the molecular level and to determine the events that lead to malignancies in the blood, with the hope that this might lead to better management," Cronkite said, neatly summing up the work of a career which, in 1989, earned him the Robert de Villiers Award, the most prestigious award given by the Leukemia Society of America.

Cronkite's BNL career also included 12 years as chairman of Medical, 1967-79. In 1979, he returned to research full-time, studying the initiation of leukemia by benzene and radiation, and, until recently, the AIDS drug AZT. He continues as a co-investigator with Kanokporn Rithidech and Victor Bond on cytogenetic and molecular abnormalities that lead to leukemia.

Cronkite's career has been well recognized: He was elected to the National Academy of Sciences in 1981 and was named to two elite medical societies, the Americal Society of Clinical Investigation, in 1952, and the Association of American Physicians, in 1966. He received honorary M.D. degrees from West Germany's University of Ulm in 1987 and Italy's University of Parma in 1991.

The Whole World in His Lab

When he looks back upon his many coworkers at BNL, Cronkite especially recalls Medical Department colleague Bond and the hematology group, which in 1983 sponsored a BNL conference on hematopoiesis in his honor. But, Cronkite said, he feels that no one person can claim total responsibility for scientific ideas in this age of networking and communication, and, instead, he places more emphasis on the ability to lead a group on a continuous path of intellectual endeavor and deter it from fragmentation.

Leading the hematology group has meant dealing with a scientific equivalent of the United Nations. During the post-WWII era, Cronkite explained, many of Europe's finest young researchers came to the States while their countries rebuilt their academic infrastructure. For example, Ludwig Feinendegen and T.M. Fliedner came to BNL's hematology group from Germany, joining the list of visitors from Australia, Belgium, Denmark, Egypt, France, Holland, India, Israel, Italy, Japan, Norway, Peru, South Africa, Sweden and Switzerland.

Leading that diverse group and the department at the same time was hectic. But, now that Cronkite's in semi-retirement, has his schedule changed? Not much, he says. "I still do as much work as I ever did, but now my conscience doesn't bother me if I decide to play tennis or if I go fishing," he said.

— Kara Villamil

Film badges will be changed tomorrow. Please place your badge in its assigned rack space before leaving work today.

Healthline Lecture

The Effects of Old Age vs. Illness

Since more people are remaining healthy and active in their later years, much of what was thought to be the inevitable consequence of old age is now being found to be the result of unhealthy lifestyles and inactivity, not aging itself. As a result, normal aging is being redefined.

For the first Healthline lecture of the new year, geriatric psychiatrist Lory Bright-Long will talk about the effects of old age in "Facing the Aging of Your Parents and Yourself: A Medical Perspective." Sponsored by the Health Promotion Program (HPP) of the Occupational Medicine Clinic, her talk will take place on Wednesday, January 12, from noon to 1 p.m. in Berkner Hall. All are invited, and an audiotape of the lecture will be at the Research Library afterwards.

After discussing the normal changes associated with old age, Bright-Long will compare and contrast aging signs with the warning symptoms of diseases of old age. For instance, she will discuss the difference between age-associated memory impairment, which is normal, versus Alzheimer's disease, which is not.

After examining the increasing financial, physical, emotional, intellectual and environmental challenges faced by people as they age, she will talk about when independent living continues to be advisable versus when older people need assistance, and, in that case, where to go for help in all of the above areas.

Lory Bright-Long, M.D., is a diplomate of the American Board of Psychiatry and Neurology, with added qualifications in geriatric psychiatry. A clinical assistant professor of psychiatry at the School of Medicine of the State University of New York (SUNY) at Stony Brook, she is the Director of the Geriatric Evaluation Service and the Long Island Alzheimer's Disease Assistance Center. Bright-Long is the current President of the Suffolk County branch of the American Psychiatry Association.

To register for this lecture, return the bottom portion of the Healthline flyer recently sent to all employees to HPP Specialist Mary Wood, Bldg. 490, by Monday, January 10.

Healthline Lectures Coming Up

Sponsored by the Health Promotion Program (HPP) of the Occupational Medicine Clinic, the Healthline series through June 1994 will include five more lectures on topics about your physical health and one talk on how illness affects your financial health. The talks, except as noted, will take place on Tuesdays, from noon to 1 p.m. in Berkner Hall. See future issues of the Bulletin for details on each presentation, or, for general information about HPP and its Healthline lecture series, call Ext. 5923.

Date	Series & Topic	Speaker
Jan. 25	Money Matters When Illness Strikes: A Legal Update	George Roach, Esq.
Mar. 14*	Osteoporosis	Ashok Vaswani, M.D.
Mar. 21*	Cholesterol, Fats & Weight Management: A Medical Update	Ashok Vaswani, M.D.
May 10	TB in the 90s	Bryce Breitenstein, M.D.
May 24	Childhood Emergencies	Ronald Paynter, M.D.
Jun. 7	Preventing & Reversing Heart Disease	Bryce Breitenstein, M.D.

* Monday

BNL Spent $45 Million On Long Island in 1993

BNL purchased about $45 million worth of supplies and services from Long Island businesses in fiscal year 1993 — $5 million more than last year. This total accounted for more than one-third of the Laboratory's purchases of $124 million during the period from October 1, 1992, to September 30, 1993.

Of the 12,195 purchases made on Long Island in 1993, some 8,631 were made in Suffolk County, and 3,564 were made in Nassau County. But, in dollars, purchases in Nassau were larger, with more than $24 million spent there, while almost $21 million was spent in Suffolk.

Mary-Faith Healey, Manager of the Division of Contracts & Procurement, said, "Brookhaven Lab places a high priority on doing business with local vendors, in particular with small firms and small, minority-owned companies."

Most of the funds were spent on high-tech goods and construction. The top two vendors — Grumman Corporation of Bethpage and Sea Crest Construction Corporation of Freeport — were both involved in the construction of the $500-million Relativistic Heavy Ion Collider (RHIC).

Grumman, the top vendor for the second year in a row, received $11.8 million in 1993 in partial payment for building RHIC's dipole and quadrupole superconducting magnets, and Sea Crest received $6.5 million to build experimental facilities at RHIC's almost 4-kilometer-in-circumference underground tunnel. RHIC will be the world's foremost facility for nuclear physics research when it is completed by the end of the decade.

The number three vendor, Carter-Melence of Sound Beach, received $2.5 million for building several service buildings for RHIC, as well as for working on other construction projects on various Lab buildings. BNL has some 350 buildings and other structures on its 5,300-acre site.

In addition, out of BNL's 1993 operating budget of $283.5 million, 57 percent went to salaries and wages and 18.1 percent went toward fringe benefits. Most of these funds were also spent on Long Island.

PSI Meeting

The Upton Chapter of Professional Secretaries International will hold a business and program meeting on Tuesday, January 11, at 6 p.m. in the South Dining Room of the Brookhaven Center, Bldg. 30.

Business held over from the canceled January 4 meeting will be discussed, and Pat Heim of Heim & Associates will present "Breakthrough Strategies for Women," a video that, with a great deal of humor, addresses problems encountered by women in business.

Cafeteria Menu

Monday, January 10

Soup: Chicken noodle	.80/1.10
A la Carte: London broil w/mushrooms	3.65
Fitness: Broccoli quiche	3.35
Deli: Pastrami sandwich	2.95
Grill: Reuben platter	2.95
Salad: Chicken & cantaloupe	

Tuesday, January 11

Soup: Cream of mushroom	.80/1.10
A la Carte: Chicken Dijon w/mushroom	3.65
Fitness: Pasta w/marinara sauce	3.20
Deli: Roast beef sandwich au jus	2.95
Grill: Western omelet w/fries	2.35
Salad: Seafood chef's salad	

Wednesday, January 12

Soup: Bavarian lentil	80/1.10
A la Carte: Herbed pork loin	3.75
Fitness: Tomato & broccoli casserole	3.25
Deli: Virginia ham sandwich	2.95
Grill: Italian cheese steak	2.95
Salad: Mixed fruit	

Thursday, January 13

Soup: Cream of spinach	.80/1.10
A la Carte: Italian steak pizziola	3.75
Fitness: Tarragon-lime chicken	3.50
Deli: Corned beef sandwich	2.95
Grill: Ham & broccoli	2.75
Salad: Tuna jardiniere	

Friday, January 14

Soup: Boston seafood chowder	.80/1.10
A la Carte: Oriental display cooking	
Fitness: Flounder & mussels saffron	3.95
Deli: Turkey sandwich w/gravy	2.95
Grill: Fried shrimp boat	3.25
Salad: Chilled turkey salad	

Deli, burger & taster's bar specials daily.

BWIS Meeting

Scientist Prantika Som, of BNL's Medical Department, will speak about "The Effects of Cocaine on the Heart," at the next Brookhaven Women in Science (BWIS) meeting, on Monday, January 10, at noon, in Berkner Hall, Room C. All are invited; please bring your lunch.

Bowling

Red/Green League

E. Beadle bowled a 259/215/204/678 scratch series, E. Sperry IV 247, R. Larsen 235, K. Asselta 223/223/203/649 scratch, H. Arnesen 214/203, W. Cahill 214, K. Koebel 212, R. Mulderig 209/205/205/619, G. Sorensen 207, A. Warkentien 205/200, C. Bohnenblusch 202, E. Meier 200, R. Wiseman 200.

Bronx Mass Choir Tops Bill For 13th Gospel Extravaganza

BNL's Afro-American Culture Club will present its annual Gospel Extravaganza on Saturday, February 5, at 7 p.m. in Berkner Hall.

This year, the thirteenth year of gospel concerts at the Lab, the featured group will be The Bronx Mass Choir, directed by Roger Hambrick. Formed in 1981, the award-winning Bronx Mass Choir has performed in churches as well as in concert halls, including Radio City Music Hall and the Apollo Theatre. The group has twice won the coveted Gospel Academy Award, in 1986 and 1990.

Also appearing February 5 are: The First Pentecostal Church District Choir, of Linden, New Jersey, as well as several local choirs, including The Living Waters Gospel Choir from Aquebogue and the BNL Gospel Choir, the Lab's own nondenominational and multicultural gospel group.

Tickets are $12 for adults and $5 for children 12 and under. There are no reserved tickets, and no tickets will be sold at the door. To be assured of a seat, BNLers should order tickets early since tickets usually sell out well before the event.

Ticket sellers are: April Donegain, Ext. 2459; Bruce Penn, Ext. 7213; Vanessa Crump, Ext. 2903; Francis Ligon, Ext. 3709; and Pauline Dixon, Ext. 2164.

Classified Advertisements

Placement Notices

The Laboratory's placement policy is to select the best-qualified candidate for an available position. Consideration is given to candidates in the following order: (1) present employees within the department/division and/or appropriate bargaining unit, with preference for those within the immediate work group; (2) present employees within the Laboratory; and (3) outside applicants. In keeping with the Affirmative Action plan, selections are made without regard to age, race, color, religion, national origin, sex, handicap or veteran status.

Each week, the Personnel Division lists new placement notices. The purpose of these listings is, first, to give employees an opportunity to request consideration for themselves through Personnel, and second, for general recruiting under open recruitment. Because of the priority policy stated above, each listing does not necessarily represent an opportunity for all people.

Except when operational needs require otherwise, positions will be open for one week after publication.

For more information, contact the Employment Manager, Ext. 2882, or call the JOBLINE, Ext. 7744 (282-7744), for a complete listing of all openings.

SCIENTIFIC RECRUITMENT - Doctorate normally required. Candidates may apply directly to the department representative named.

POSTDOCTORAL RESEARCH ASSOCIATE - Trained in physics, with knowledge of accelerator physics and technology, to participate in a conceptual design and feasibility study of producing crystalline beams. Contact: Alessandro Ruggiero, Department of Advanced Technology.

LABORATORY RECRUITMENT - Opportunities for Laboratory employees.

DD 2741. CARPENTER - Under minimum supervision lays out, constructs, modifies and maintains buildings and component parts from construction drawings, rough sketches or verbal instruction. Works with wood, wood substitutes and combination materials, and flooring, roofing and wall materials. Plant Engineering Division.

DD 2966. OFFICE SERVICES POSITION - (part-time, term appointment) Requires an AAS in secretarial science or equivalent experience, knowledge of WordPerfect, and excellent oral and written communication skills. Knowledge of Laboratory policies and procedures desirable. Responsibilities will include maintenance of administrative file system; use of IPAP for purchase order and travel arrangements input; correspondence; mail; and ordering office supplies. Personnel Division.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside candidates.

NS 2873. HFBR PLANT MANAGER - Requires bachelor's degree in engineering or a related science, certification as a shift supervisor at a reactor facility and six years' nuclear experience, which should include at least four years at a supervisory or management level. Must be able to obtain and maintain a security clearance. Will be responsible for the operation and maintenance of the High Flux Beam Reactor. Reactor Division.

MK 5538. COMPUTER NETWORKING POSITION - Requires a BS degree, preferably in computer science, or equivalent, and a minimum of five years' networking experience. Experience with TCP/IP, DECNET, IPX and Appletalk protocols over Ethernet and FDDI networks required. A background in building and managing heterogeneous networks of workstations, large systems and PCs necessary. Customer-service orientation, knowledge of UNIX and network-management system experience are required; knowledge of the Internet is highly desirable. Responsibilities include the design, planning, installation and operation of a 2000+ node LAN/WAN network. Computing & Communications Division.

DD 5536. TECHNICAL POSITION - (term appointment) Requires a BS or equivalent and previous experience in a networked microcomputer-support function. Will support the acquisition and use of PCs and Macintosh computers Labwide, and provide application consulting and hotline assistance. Will design, organize and conduct courses for application packages, such as Lotus, WordPerfect and Windows, and research new technologies and applications. Computing & Communications Division.

LS 5539. PROGRAMMING/ANALYST POSITION - (term appointment) Requires a BS in computer science or equivalent, a strong background in VMS system management, extensive knowledge of UNIX and experience in C, C++ and Fortran. Knowledge of VMS AXP and familiarity with network applications, such as AFS, navigational tools, authentication services, are highly desired. Computing & Communications Division.

LS 5537. PROGRAMMING POSITION - (part-time, term appointment) Requires an AAS degree in computer science or equivalent with experience in C programming, UNIX systems and local area networks (LAN). Excellent written and oral skills are also required. Experience in TCP/IP data network is highly desirable. Responsibilities include designing and developing utility programs that will enhance current network management/monitoring systems for the Laboratory's network, and the installation and integration of software with existing systems. Computing and Communications Division.

Motor Vehicles & Supplies

93 VW GOLF III - white, 5-spd., ac, am/fm cass. radio, alarm, beige int., clean, like new, 6k mi., $12,500. Amy, 924-7552.

90 FORD TAURUS GL - 4-dr., twilight blue, V-6, a/t, cruise, tilt wheel, ac, lt. blue int., new tires/brakes, 60k mi., good cond., asking $5,900. 475-9027.

89 VW CABRIOLET - convertible, ac, a/t, Blaupunkt, 58k hwy. mi., excel. cond., $11,500. 821-0686.

88 JEEP CHEROKEE CHIEF 4x4 - 6-cyl., 73k mi., a/t, ac, p/w, p/l, moon roof, am/fm/cass., $7,500. 473-2473.

87 HYUNDAI - 55k mi., 2-dr. h/b, ac, am/fm stereo, $1,200 or best offer. Lee, Ext. 4353.

87 STERLING 825S - luxury sport, a/t, 72k mi., engine problems, $2,000; '78 Chevy Blazer 4x4, V-8, a/t, $1,000. E. Edwards, Ext. 4308 or pager 6158.

86 CAMARO - new engine, brakes, exhaust, rebuilt trans., excel., asking $4,500. Ext. 3334 or 744-2404.

85 HONDA ACCORD LX - a/t, ac, new carb., exhaust, battery, alternator, rotors, 96k mi., excel. cond., $3,200 neg. Ext. 2679 or 472-6922.

85 TOYOTA COROLLA - 4-dr., a/t, ac, fwd, radio cass., reliable, $2,000. Ext. 5334.

84 NISSAN STANZA - 4-dr. h/b, 5-spd., m/t, 72k mi., good, clean, $900. Mark, Ext. 3812.

84 VW VAN - 130k mi., new tires, m/t, seats 7, ac, good transportation, $2,000. Chu, Ext. 2389.

81 CADILLAC SEDAN DE VILLE - full power, runs well, many new parts, $1,150 neg. 475-8242.

79 SS MONTE CARLO - V-8, $600 neg. Al, Ext. 2175 or 231-4613 after 5 p.m.

78 FORD F250 4X4 - 400 CID V-8, p/s, p/b, Yamaha stereo, extras, runs well. Tom, Ext. 7511.

68 CAMARO - Blackjack headers, p/s, good int., runs well, $1,000 neg. Tracy, Ext. 5864 or 929-5648.

55 T-BIRD - Continental pkg. w/2 tops, completely restored, $18,000. Ext. 7362.

RADIO - am/fm stereo, fits GM late model cars, $45. Walt, Ext. 7154.

RIMS - for Ford pickup, alum.; '69 Mustang rear seats, like new; truck & Mustang parts. Wayne, Ext. 7238.

TIRES - 2, Firehawk 195/70/R13, $20/ea.; rims, 2, Buick Skyhawk 5-star, $25/ea. Paul, Ext. 2777.

Boats & Marine Supplies

18' STARCRAFT - needs center console remounted, w/controls, no engine.; motor,1986, 40-h.p. Mariner, elec. start, less than 20 hrs., excel. Bill, 281-6498.

Furnishings & Appliances

BED - new, full-size, orthopedic, orig. $200, now $95; table, round, 2 sided, chestnut color, w/2 chairs, orig. $100, now $45. 473-3852.

CEILING LIGHT - 24" wagon wheel, 5 lights, milk glass hurricane style, oak finish. Dorothy, 929-8772.

CRIB - bassinet, v.g. cond., $50. Mike, Ext. 2201.

ENTERTAINMENT CENTER - glass stereo door, sliding tray, cabinets, fits large TV, accordian doors, excel. cond., $150. Tom Nolan, Ext. 5265.

LIVING ROOM - sofa, 2 chairs, 3 tables, etagere, stereo cabinet, lamp-table, assorted wall-hangings, draperies. Ext. 3334 or 744-2404.

RANGE - 30" green, bottled gas, good cond., $50. 924-6751.

Tools, House & Garden

PLAY CENTER - Eagle's Nest, w/6 activity stations, Cool Wave slide, CCA-wood, $250 delivered & set-up. Don, Ext. 7237 or 744-2921 after 5:30 p.m.

STOVE - Surdiac Southport model, coal, excel. cond., asking $200. Ext. 3334 or 744-2404.

STOVE - wood, single-log, stand-up, black, best offer. T. Nolan, Ext. 5265.

TREES - Douglas Fir, B&B, sheared, 8' tall ea., excel. for privacy, $60/ea. for 10, $50/ea. for 20. Tom, Ext. 4507 or 878-1060.

Sports, Hobbies & Pets

AMPLIFIER - guitar, Fender Princeton Stereo Chorus model, 2 yrs. old, like new, orig. $550, sell for $275. Tom, 434-9345.

BICYCLE - Huffy, boy's, 12-spd., 24" wheel, mountain, new, assembled. Corine, Ext. 3675.

ICE SKATES - black size 7, white size 6, good cond., $10/ea.; Polaroid camera, $10; 8mm antique camera, $10. Mott, Ext. 7108.

SKIS - child's, Atomic, 130cm, $50; Rossignol 130cm, $30. Leonard, Ext. 4457.

SKIS - Harts, 160cm, $25; ski boots, Dolomite, women's 6½, $25. Darlene, Ext. 4685.

SKIS - 170cm, Head Radial, w/1736 Marker bindings, $89/. 473-2473.

TELESCOPE - 8" Celestron, Schmidt/Cassegrain, motor drive, heavy tripod, filters, eyepieces, many extras, orig. $1,500, sell for $750. Tom, 434-9345.

WEIGHT BENCH - Weider Jr., w/ss bar, assorted steel weight, lat & curl bars, $75/all. Mike, Ext. 2201.

Audio, Video & Computer

CAMCORDER - Hitachi, S-VHS, many features, like new, orig. $1,200, sell for $675. L. Arnold, Ext. 5462.

GAMES - Super Nintendo, $30-$35/ea.; Superscope, $30. Ext. 7505.

TV - 25", Zenith, remote, console, excel. cond., $150. 473-3852 after noon.

Miscellaneous

CASH REGISTER - National, mechanical, approx. 30 yrs. old, model 21, excel. cond., $175. Tom, Ext. 4507 or 878-1060.

HAT - western cowboy, Langston's, grey, size 7, made in Texas, in box, orig. $75, make offer. 929-8772.

HIGH CHAIR - Graco, like new, $20; Little Tykes slide, $15; Fisher Price swing, $5. Park, 474-5813.

MINI BLINDS - alum., new, Ikea, 55"Wx68¾L, 9 blinds, $10/ea. neg. Sue, Ext. 7235 or 395-3529.

MINK COAT - white, car-length, size 8-10, worn twice, orig. $2,700, asking $595. John, Ext. 7039 or 929-4450.

Free

HUBCAP - Chevy Caprice. Janet, Ext. 2345.

Car Pools

BOHEMIA-E. ISLIP-OAKDALE - save energy, join our carpool, looking for 1 or 2 drivers. Frank, Ext. 2314.

Wanted

FLUTE - used, closed or open hole, good cond. Kathy, Ext. 2267 or 395-6520 after 6 p.m.

NORDIC TRACK - Pro or any model will do. Ext. 2148 or 289-1831, leave message.

OUTBOARD ENGINE - approx. 10-25 h.p. 924-6751.

SKIERS - to ski Windham 1/26, $43 for bus and lift, send payment to Augie Hoffman, Bldg. 510C.

TABLE - 42-48 in. dia., butcher block or oak on metal pedestal. John, Ext. 7671.

TRAILER - utility, approx. $100. 924-6751.

TRAINS - Lionel & American Flyer, priv. collection, pays top $. Ext. 7100 or 924-4097.

Services

*Services are listed in the first **Bulletin** of every month as a courtesy to BNL employees. They are neither screened nor recommended by the **Bulletin**. Services forms are availabe in the **Bulletin** lobby, Bldg. 134.*

ANIMAL-SITTER - animal-loving 10-yr.-old will treat your pets like my own while you're away. Kate, 929-5945.

BABY-SITTING - and/or house cleaning, by responsible, exp. mother, live-in avail., low rates. 331-0807.

BABY-SITTING - ages 2 & up, my Ronkonkoma house, former BNL employee, reas. rates. 471-6416.

BRICKWORK - masonry, patios, walks, swimming pools, retaining walls, landscaping ties, Belgium block, 25 yrs. exp., Lab disc. Tony, 698-9274.

C++ - private lessons for Fortran or C programmer, 10 hrs. instruction including tutorial book, $300; for beginner, 15 hrs., $600.Xue, 395-4366.

CARPET/UPHOLSTERY CLEANING - spot, pet stains, odor removal, auto interior, fabric protector, free est., Lab discount. Jerry, 924-6019, days.

COMPUTERIZED DRAWINGS - laser prints, samples upon request, reas. rates, fast service. 563-6680.

COUNSELING - exp., licensed social worker will provide help w/individual, marital, or family problems, insurance reimbursable. Linda, 929-5860.

HOME IMPROVEMENTS - extensions, dormers, decks, kitchens, baths, roofing, siding, painting, licensed & insured, refs., estimates. Chris, 286-2780.

HOME IMPROVEMENTS - carpentry, drywall, spackling, painting, plumbing, ceramic tile, free estimates, Lab discount. Don, 744-2921 after 5:30 p.m.

HOUSECLEANING/UPHOLSTERY & CARPET CLEANING - weekly, bi-weekly and one-time appointments avail. 727-8962.

JEWELER - special orders, repairs, honest, affordable, no job too large or small. Kelly, 821-5239.

KITCHENS - 3 styles for under $3,000 includes cabinets, top, installation. Carl, 698-9274.

LETTERING-STRIPING-AIRBRUSHING - trucks, vans, cars, bugshields, motorcycles, boats, helmets, paper signs, murals, nurseries. Gary, 543-9113.

LOCKSMITH - sales & service, 10% Lab discount, keys cut during lunch. Pete, 399-2813 after 5 p.m.

MUSIC LESSONS - piano, violin, viola, exp. teacher, reasonable, lessons in my Sayville home. 589-5875.

PAINTING - interior/exterior, Sheetrock, tape, spackle, staining, wallpaper, insured, ref. James, 399-4912.

PC TRAINING - personal computer applications, word processing, desktop publishing, spreadsheets, databases, graphics, windows. Gina, 929-3649.

REPAIR - TV, VCR, computers, printers, monitors, o'scopes, electronic test equipment, home appliances, free estimates. Steve, 698-5260.

SEAMSTRESS - clothes made, alterations done, reasonable prices, refs. Donna, 369-5704 after 6 p.m.

SHEETROCKING & SPACKLING - free estimates. Kevin, 567-6621.

TAXES - tax preparation and tax planning. Nick Scala, 475-8330.

TAXES - prepared by tax consultant, your home or mine, reasonable, serving Lab people for almost 20 years. John, 732-2472.

WELDING - security window and door guards, railings, trailer and equipment repairs, columns and flitch plates, immed. service. Tony, 281-2513.

VIDEOGRAPHER - capture those precious moments on video, will tape weddings, parties, all occasions. Larry, 281-7240.

In Appreciation

Thank you to my friends in the Magnet Division for their kind expression of sympathy on the loss of my father. — Bill Stokes

We would like to thank Graphic Arts, Plant Engineering & Public Affairs for their kind expressions of sympathy on the loss of our beloved father & husband, Earle. He will be greatly missed.
— Michele Hale, Virginia Dickerson & family

Classified Ad deadline is 4:30 p.m. Friday for publication Friday of the next week.

The Brookhaven Bulletin is printed on paper containing at least 50 percent recycled materials, with 10 percent post-consumer waste.