

Beam Stability, Next Light Source — Topics at NSLS Users' Meeting

In a given year, more scientists use the National Synchrotron Light Source (NSLS) than any other research facility in the world. Last year, in fact, some 2,500 users from about 400 institutions performed research on the 84 lines delivering beam from the NSLS' vacuum ultra-violet (VUV) ring and its x-ray ring.

This world record came to light at the Annual NSLS Users' Meeting, which was held on site May 19-20 and attended by 300 of those users. Given that May 20 was the tenth anniversary of the commissioning and the start of experiments at the VUV ring — America's first dedicated high-brightness synchrotron-radiation source (see accompanying story) — the meeting's review of NSLS history, its current operations and its future was particularly apropos.

Highlight of the Year

In updating the users about his department's accomplishments over the past year, NSLS Chairman Denis McWhan stated, "The highlight of the year is increased beam orbit

stability." The less the electron beam within a synchrotron deviates from its intended path around the ring, the higher the effective brightness of the radiation emitted by that beam — and the more experiments that are made possible.

Explained McWhan, "We can control the vertical orbit to 20 microns and the horizontal orbit to 40 microns — and we congratulate NSLS Deputy Chairman Sam Krinsky and the NSLS staff who got us where we are today in terms of stability."

Using their experience with the real-time, global harmonic feedback system installed in 1989 to correct the vertical orbit of the beam in the VUV ring, Li Hua Yu and Om Singh developed two new feedback systems for the x-ray ring. The vertical system was installed in February 1991 and the horizontal one was put in place that September. Together, they have improved orbit stability by a factor of five.

Two other machine-improvement items that McWhan mentioned were: the installation in the fall of 1990 of

A recent scene at the NSLS' vacuum ultra-violet ring, which turned ten years old on May 20, the anniversary of the date that design energy was reached and experiments began.



Peter Horton

a fourth harmonic cavity in the VUV ring — which has doubled the lifetime of its beam; and the addition of a third klystron to the linear accelerator that is part of the injection system, which increases the maximum linac energy to 120 million electron volts.

Space Is an Issue

"Space around the ring is always

an issue," commented McWhan, but he had good news to report.

First, the President's proposed budget for fiscal year (FY) 1993 includes a line item to pay for expanding the NSLS building around the beam lines from X5 to X12, for use as a setup area for structural biologists. And second, the BNL Director-

(continued on page 2)



Roger Stoutenburg

The NSLS Users Executive Committee (UEC) met during the Annual NSLS Users Meeting, to discuss a report of the scientific program support committee, general user issues and the formation of a new committee on compliance with DOE environment, safety and health policy. Members of the UEC include: (front, from left) Carol Hirschmugl, BNL; Paul Cowan, Argonne National Laboratory (ANL); Susan White De Pace, BNL; Mark Rivers, University of Chicago, past UEC chairman; Neal Schinn, Sandia National Laboratory, newly elected UEC chairman; Gabrielle Long, National Institute of Standards & Technology (NIST); John Kirkland, Naval Research Laboratory (NRL), UEC vice chairman; (back, from left) C.T. Chen, AT&T Bell Labs; Michael Dudley, State University of New York at Stony Brook; Lars Furenlid, BNL; James Long, NRL; Alastair MacDowell, AT&T Bell Labs; Robert Bartynski, Rutgers University; Randy Alkire, ANL; Craig Thorn, BNL; Lawrence Sorensen, University of Washington; Earl Skelton, NRL; and Jean Jordon-Sweet, IBM.

The VUV Ring — From Ice Skaters to Electrons

In January 1977, when President Gerald Ford included \$24 million in his budget to begin the construction of the National Synchrotron Light Source at the Lab, what were then circulating on the future NSLS site weren't electrons — but ice skaters.

Over the years, BNL employees had been practicing their figure eights and hockey stops on the frozen ice patch off Brookhaven Avenue between Technology Street and Railroad Street — never suspecting that it would one day be home to the world's most utilized scientific research facility (see main story).

(continued on page 2)



The February 1977 scene at the future site of the National Synchrotron Light Source (NSLS), taken one month after funding to begin NSLS construction was included in the President's budget.

BNL Lecture: Technologies for Arms Control Verification

The cold war is over. The Soviet Union is no more. But the nuclear arms that were created and readied by the former U.S.S.R. remain. And so does the need to verify that these arms are being properly and effectively controlled by the nations that have inherited them.

This need is being met at BNL by the Technical Support Organization (TSO), a division of the Department of Nuclear Energy (DNE). Since the end of 1988, TSO has been working on a project funded by the U.S. Department of Energy's (DOE) Office of Arms Control and Non-Proliferation to develop new verification tools and methods.

Joseph Indusi, Associate Chairman of DNE who also heads TSO, will discuss the current status of his division's efforts when he delivers the 279th Brookhaven Lecture. His talk on "Technologies for Arms Control Verification" will begin at 4 p.m. on Wednesday, June 17, in Berkner Hall. He will be introduced by DNE Chair-



Roger Stoutenburg

Joseph Indusi

man Romney Duffey.

The Soviet Union has been replaced by the 11 republics of the Commonwealth of Independent States. With four of these republics now the guardians of their former

union's nuclear weapons, the current scenario is somewhat different from the situation that existed when TSO first became involved with arms verification. Nonetheless, as Indusi will show, this scenario is one that is sure to benefit from TSO's work.

In his talk, Indusi will explain the role and elements of verification, relate the history of arms-control talks and treaties, and describe the various technologies of arms control and their applications. Finally, he will discuss the computer system that TSO developed specifically for its verification work. Known as CIVET, for Controlled Intrusiveness Verification Technology, this is one of the first new tools developed under the DOE project.

After earning his B.S. in electrical engineering from the University of Bridgeport, in 1965, Joseph Indusi moved to the State University of New York at Stony Brook, which granted him an M.S. in applied analysis in 1969 and a Ph.D. in applied mathe-

matics and statistics in 1971.

Indusi became a systems consultant with the Burndy Corporation in 1972, but left in 1973 to come to BNL. TSO had been formed in 1968 to advise and assist DOE and other government agencies on nuclear safeguards and arms-control decision-making, and Indusi joined its staff as an assistant mathematician.

In 1977, Indusi was named mathematician and also became both BNL coordinator for the International Safeguards Project Office and Deputy Head of TSO. He became Division Head in 1986 and Associate Chairman in 1990. In 1991, Indusi was elected a member-at-large to the executive committee of the Institute of Nuclear Materials Management, an international professional society concerned with nuclear safeguards.

After the lecture, those attending are invited to join the speaker for discussion and refreshments. To join the lecturer for dinner at a restaurant off site, call Lois Marascia, Ext. 4904.



Welcome to our shores — summer students and other visitors!

Volunteers Needed

Male volunteers ages 25 to 45 and in good health are needed to participate in brain and heart-imaging studies being conducted by BNL. A fee will be paid. For more information, call Naomi Pappas, Ext. 2694.

NSLS Meeting (cont'd)

ate has approved funding over the next two fiscal years for extending the building from the control room to beam line X5, which will provide additional setup space and allow for the enlargement of the control room.

What McWhan also brought to light during his presentation to the users, was that, despite the record number of actual users and the oversubscription by potential users, the NSLS budget has barely grown.

"The reality is that, although the fraction of our budget that comes from chemical sciences did grow, the materials sciences portion fared poorly. Chemical sciences accounts for 40 percent of our budget and it grew by 5 percent in the President's FY93 budget request. By contrast, materials sciences is 60 percent of our budget, but it grew only 2.2 percent. This yields a net increase of 3.3 percent — which is hardly growing."

McWhan continued, "Worse than a flat budget, there is the caveat in the President's budget: 'reduction in operations and user support necessary to absorb the full effect of any cost of living increases.' The low budget, unfortunately, will translate into a 10 percent reduction in the NSLS staff in FY93.

"In participating its partnership with the satisfying research teams from industry, universities and government labs that built the Light Source's beam lines, the NSLS has yet to reach its full potential," continued McWhan. "We have the potential for substantially improving the rings — and the staff to do the improvements. But, if the proposed budget is not increased, it will jeopardize our ability to do so."

The other bad news that McWhan announced was the cancellation by the U.S. Department of Defense of the NSLS' superconducting x-ray lithography source (SXLS) program. This

Meet BNL's Betsy Ross

While she doesn't make BNL's American flags, Christine Snell has repaired about a dozen of them over the past two years — including this one, which will be ready to fly on Flag Day, June 14.

Though not a legal holiday, Flag Day is the anniversary of the adoption of the stars and stripes as the official American flag in 1777. Today, the U.S. flag has 13 stripes, symbolizing the original 13 American colonies, and 50 stars, representing the 50 states in the union at present.

As the sole proprietor of Sew Unique, Inc., of Middle Island, Snell is a dressmaker by training and trade: She graduated from New York's Fashion Institute of Technology and has practiced her craft professionally over the past 12 years.

She came into flag repair through her competitive pricing and quality work. As a result, Christine Snell was selected as BNL's Betsy Ross. Flag Day is special to Snell and her husband, Frank, Plant Engineering Division, for another reason: It is their wedding anniversary — this year, their 34th.

Along with the tools of her trade, Christine Snell is pictured with her granddaughter and namesake, Christine Michelle Cummings who is the daughter of the Snells' daughter, Michelle Cummings, Management Information Systems Division, and her husband Wayne Cummings,



Plant Engineering. Snell minds her granddaughter on days when little Christine is not at BNL's Child Development Center. — Marsha Belford

happened despite the success with warm-magnet prototype, which had stored 1,200 milliamperes of current — far more than any other compact synchrotron.

4th Generation Light Source

Looking into the future, McWhan stated, "As a second-generation synchrotron-radiation source, the NSLS will compete well in terms of photon flux against such third-generation sources as the Advanced Light Source at Lawrence Berkeley

and the Advanced Photon Source now under construction at Argonne."

He continued, "In terms of beam brightness, however, the new sources will be a couple of orders of magnitude ahead of the NSLS. So, for several years, we have been looking toward developing a high peak power, short-pulse source of coherent radiation in the UV, known as a UV free-electron laser (FEL), as the first fourth-generation light source. We want to establish a UV-FEL user facility so researchers may use this

source to study biological and chemical dynamics, and the electronic structure of materials."

McWhan added that funding to develop new ideas in UV-FEL design has come from the Director's Exploratory Research Program. Experiments to demonstrate the feasibility of building a UV-FEL as a light source are about to be carried out at BNL's Accelerator Test Facility, and a conceptual design report for a future UV-FEL user facility is being developed.

"If the UV-FEL is added to our existing VUV and x-ray rings, we will continue to be one of the leading DOE user facilities as we enter the 21st century," McWhan concluded.

— Marsha Belford



Strawberries: Sweet, Healthy, Ready to Enjoy

For those who enjoy the sweet taste of strawberries and cream, strawberry shortcake, or just plain strawberries, good news has finally arrived: The 1992 strawberry season has begun!

Local farmers say that the unusually cold weather on Long Island has delayed the crops from ripening. Normally, strawberries are ready to be picked by the first week in June. This year, however, most farmers are beginning their harvest this week. In general, mostly all of the berries should be at their prime by next week.

If you don't already enjoy eating strawberries, there are some healthy reasons to start. Three quarters of a cup of strawberries has just 40 calories and provides 59 milligrams of vitamin C. Eight ripe berries supply three grams of fiber to your body.

In addition, the roots, leaves and fruit of the strawberry contain ellagic acid. In a study that appeared in *Science and Technology*, this substance seems to protect human cells against certain cancer-causing chemicals.

The following local farms have pick-your-own strawberries, but, to make sure they're ready to be picked, it's best to call in advance. The cost differs from farm to farm, but prices range between 90¢ and \$2.50 per quart.

Anderson's Farm Stand: Route 58, Riverhead; 727-2559. Open daily, 9 a.m. to 6 p.m.
Kenneth Glover: 633 Horseblock Road and Strawberry Lane, Brookhaven; 286-8721. Open daily, 8 a.m. to 6 p.m.

Hank's Farm Stand: Montauk Highway, Water Mill; 726-4964. Open daily, 9 a.m. to 6 p.m.

Hodun Farms: River Road, Calverton; 727-2618. Open daily, 9 a.m. to 7 p.m.

Seps Farm Stand: Route 25, East Marion; 477-1583. Open daily, 8 a.m. to 5 p.m.

Wickham's Fruit Farm: Route 25, Cutchogue; 734-6441. Open Monday through Saturday, 9 a.m. to 5 p.m.

Young's Orchard: 54 Sound Avenue, Riverhead; 727-5363. Open daily, 7 a.m. to 6 p.m.

Lewin Farms: 123 Sound Avenue, Calverton; 727-3346. Open daily, 8 a.m. to 6 p.m.

Rottkamp's Fox Hollow Farm: 143 Sound Avenue, Calverton; 727-1786. Open daily, 9 a.m. to 5 p.m.

From Ice Skaters to Electrons (cont'd)

Unbeknownst to the skaters, from 1975 to 1977, now BNL Deputy Director Martin Blume headed a committee that included the late Renate Chasman and Ken Green, to design and develop the NSLS for that very site.

As Blume recalled for the audience at this year's annual NSLS Users' Meeting, "Our first plan for the NSLS called for only an x-ray ring, which would also provide vacuum ultraviolet light — but with a high background of hard x-rays. In response to our original plan, we had what I like to call a VUV revolt by potential users — which resulted in our designing the two rings that we have today."

Out of that revolt now comes celebration: On May 20 — the anniversary of the 1982 date when the electron beam within the VUV ring first reached its design energy of 700 million electron volts (MeV), making VUV light available for the first experiments at the NSLS — the VUV ring turned ten.

Ten years after its commissioning, the VUV ring operates at 750 MeV energy and 950 milliamperes current, with an average beam lifetime of four hours. Its 16 beam ports bring VUV radiation out of the ring and down 30 beam lines. Last year, some 500 scientists from over 100

institutions set up their experiments at the end of these beam lines, and the VUV ring provided light for experiments 60 percent of the year.

What's more, not only does the VUV ring's spectrum include VUV and low-energy x-rays as was originally planned, but, since 1987, infrared light has also been drawn out of the machine as a bonus from the synchrotron's innovative design.

With this spectrum, VUV-ring users over the last ten years have obtained data that represent a major part of the world's knowledge of the electronic structure of metals and alloys, and have added to the existing knowledge of chemical structures and reactions, properties of insulating materials, and the transfer of energy between molecules in biological systems.

In applied science, studies of catalysis, corrosion, semiconductors and high-temperature superconductors have yielded significant advances. Among the most notable achievements of VUV-ring research are the development of high-resolution computer chips using soft x-ray lithography, and a soft x-ray microscope for examining wet biological samples.

Other techniques perfected at the VUV ring include: photoemission spectroscopy, infrared spectroscopy, surface extended x-ray fine structure, fluorescence and dichroism.

ANS Meeting

Andrew Kadak, President and Chief Executive Officer of the Yankee Atomic Electric Company, will speak on "Yankee Rowe's Reactor Vessel Controversy — Lessons of the Past, Present and for the Future," at the next meeting of the Long Island Section of the American Nuclear Society (ANS). The meeting will take place on Wednesday, June 17, at the Three Village Inn in Stony Brook.

Following cocktails at 6 p.m. and dinner at 7 p.m., the speaker will be introduced at 8 p.m. by current LIANS President Peter Kroeger, of BNL's Department of Nuclear Energy. To make reservations, call Linda Hanlon, Ext. 7217.

Added Addresses

- Joe Brookhaven National Lab
- Brookhaven National Library
- Brookhaven National Observatory
- Brook Haven National Lab
- Will Hyd Pkwy
- Mr. Brookhaven N. Lab
- Brookhaven Nat Cab

BWIS Offers Speaker, Party

Summer students, other visitors and members of the BNL community are invited to attend two upcoming functions of Brookhaven Women in Science (BWIS):

Shedding "New Light on Surface Science," Carol Hirschmugl, a technical collaborator at the National Synchrotron Light Source (NSLS), will be the guest speaker at BWIS's next meeting.

After coming to the NSLS as a science associate, Hirschmugl enrolled as a graduate student at Yale University. She is currently doing her thesis research at the NSLS' infrared beam line, using a novel R&D 100 Award-winning device that she helped to develop.

The meeting will begin at noon on Wednesday, June 17, in Room A, Berkner Hall. Coffee and tea will be available; please bring your lunch.

BWIS's 13th annual Cocktail Party will be held on the patio of the Brookhaven Center, on Tuesday, June 23, from 5:15 to 7 p.m.

Hot and cold hors d'oeuvres will be served. The cost is \$4 per person, \$3 for summer students with ID. There will also be a cash bar. R.S.V.P. by June 19 to Stephanie LaMontagne, Ext. 7141; Millie Laster, Ext. 3775; or Harriet Martin, Ext. 7761.

Bowling Champions



THE PORTSIDERS came out on the top side in the Red/Green League: (from left) Bill Kristiansen, Mike Guacci, Hank Arnesen, Rich Larsen, Harold Marshall, Nick Parrinello and Nate Carter.



RAZOR'S EDGE looked sharp and had the edge in the Purple League: (from left) Kurt Jellet, Fran Brown, Betty Jellet and George Munoz.



GET SERIOUS has a serious hold on first place in the White League. Taking top honors for the second year in a row are: (from left) John Niemczyk, Fern Simes, Elaine Zukowski and John McCarthy.

Photos by Roger Stoutenburgh

Coming Up

At the request of some who missed the first talk in the Pegram Lecture Series given earlier this spring by Maurice Goldhaber, AUI Distinguished Scientist Emeritus, a videotape of his lecture, "Reminiscences From the Cavendish Laboratory: Nuclear Photo-Effect and Slow Neutrons" will be shown on Tuesday, June 16, at 3:30 p.m., in the seminar room of Physics, Bldg. 510.

Software Demo

A demonstration of the P-CAD PCB layout and Viewlogic design and simulation systems will be presented on Wednesday, June 17, at 10 a.m., in the seminar room of the Computing & Communications Division, Bldg. 515. The demo will include schematic capture; PCB interface; digital, analog, mixed-mode simulation; VHDL; and digital-logic synthesis. For more information, call Pam Mansfield, Ext. 7286.

Tennis Fun Day

There's still time to sign up for the Tennis Fun Day scheduled for tomorrow, Saturday, June 13, at 9 a.m., with a rain date of June 20. Lab visitors, employees and family members can sign up by calling Om Singh, Ext. 5332, or Rudy Alforque, Ext. 3615. Then bring a can of balls, a racket and join the fun.

Softball

League I (5/26)		League II (5/26)	
Blue Jays	4-0	Titans	4-0
Cool 'n Gang	4-0	Dirty Sox	3-1
Phoubars	3-1	Scram	3-1
Ravens	2-2	Cocoon	2-2
Magnuts	1-3	Phase Cut	2-2
Revised Edition	1-3	Antiques	1-3
Up & Atom	1-3	Lunaticks	1-3
Six Pax	0-4	Lights Out	0-4
League V (6/5)			
What's on 2nd	5-0	Molson Express	1-3
Ha Has	2-1	Snafu	1-3
Good Timers	2-1	Jerry's Kids	0-2
Lead Bottoms	1-2		

Leagues 3 and 4 — not available

Splish Splash on 7/3

The Swim Club still has spaces for its group trip on Friday, July 3, to Splish Splash, a water park located off LIE Exit 72 in Riverhead. Tickets cost \$10 each, a savings of \$6.95 for adults and \$2.95 for children under 48 inches. Children under two enter free. Parking is extra, at \$3 per car. Paid reservations are being taken by Marsha Belford, Bldg. 134, Ext. 5053. On the day of the trip, the Swim Club will meet in the Splish Splash parking lot at 9:30 a.m. to distribute the tickets. In case of rain, the trip will be canceled and money refunded.

Cafeteria Menu

Luncheons

Monday, June 15	
Soup: Vegetable	.80/1.10
Entree: Macaroni, beef & tomatoes	3.20
Entree: Chef's choice	3.20
Fitness: Baked fish w/herbs	3.45
Carvery: Hot pastrami sandwich	2.95
Grill: Chicken tenders & mozzarella sticks	2.95
Tuesday, June 16	
Soup: Navy bean	.80/1.10
Entree: Taco bar (each)	.90
Entree: Chef's choice	3.20
Fitness: Vegetable lasagna	3.20
Carvery: Hot roast beef sandwich	2.95
Grill: Double burger w/French fries	2.95
Wednesday, June 17	
Soup: Beef noodle	.80/1.10
Entree: Chicken Parmesan	3.35
Entree: Potato bar	2.00
Fitness: Chef's choice	3.20
Carvery: Hot baked ham sandwich	2.95
Grill: Corned beef melt on pumpernickel	2.95
Thursday, June 18	
Soup: Cream of potato	.80/1.10
Entree: Southern-fried chicken w/veg.	3.20
Entree: Baked manicotti w/veg.	3.20
Fitness: Chef's choice	3.20
Carvery: Hot corned beef sandwich	2.95
Grill: Philly cheese steak	2.95
Friday, June 19	
Soup: Manhattan clam chowder	.80/1.10
Entree: Shrimp Creole w/rice	3.45
Entree: Chef's choice	3.20
Fitness: Catch of the day	3.45
Carvery: Hot roast turkey sandwich	2.95
Grill: Fillet on croissant	2.95



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 - Candidates may apply directly to the department representative named.

POSTDOCTORAL RESEARCH ASSOCIATE - with a background in physics and chemistry, and experience in scanning tunneling microscopy (STM) and surface science, to conduct research

Cyclists on Site

As summer arrives, the number of people on site always increases — and so does the number of bicycles and automobiles. For everyone to have a safe summer:

- Drivers should remember that bicycles should be treated like other vehicles: Watch out for them and yield the right-of-way as necessary.
- Cyclists should remember to follow the rules of the road: Ride with the traffic and signal your intentions.

Note to Employees:

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

Arrivals & Departures

Arrivals	
Wim T. Klooster	Chemistry
Richard W. Savage	Reactor
Departures	
None	

on the fundamental aspects of electrochemical interfacers using *in situ* STM and surface x-ray scattering techniques. Contact: Benjamin Ocko, Physics Department.

POSTDOCTORAL RESEARCH ASSOCIATE - trained in biophysics or related field, to conduct research to determine the structure of photosynthetic membrane proteins from cyanobacteria by reconstituting them in a lipid matrix. Knowledge of protein purification techniques and familiarity with x-ray or neutron scattering is desirable. Contact: Anand Saxena, Biology Department.

LABORATORY RECRUITMENT - Opportunities for Laboratory employees.

DD 8395. SECRETARIAL POSITION - Requires AAS in secretarial science and a knowledge of Laboratory policies and procedures, as well as excellent communication skills. Will provide varied secretarial support to the Nuclear Safety Group of the Technical Support Organization, including preparing technical reports and correspondence, arranging travel and maintaining office files. WordPerfect experience highly desirable. Must be able to obtain and maintain a security clearance. (reposting) Department of Nuclear Energy.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside candidates.

DD 6133. TECHNICAL POSITION - Requires AAS in electronic technology or equivalent and experience with electronic test instruments, high voltage and/or high current power supplies and computer operations. Will work from electronic schematics, verbal instructions and rough sketches. Knowledge of electronic test instruments and hand tools desirable. Shift work may be required. Alternating Gradient Synchrotron Department.

DD 0653. TECHNICAL POSITION - Requires AAS in mechanical technology or equivalent. Will perform a variety of functions such as maintaining installing, testing and troubleshooting technical equipment at the HFBR and BMRR facilities. Previous experience in a nuclear facility is highly desirable. Must be able to obtain and maintain a security clearance. Reactor Division.

NS 1033. ENGINEERING POSITION - Requires BSME and minimum of ten years' experience. Must be knowledgeable in theoretical and general vacuum technologies, vacuum pumping, sealography and leak checking; plus properties, joining and fabrication of materials. Background managing technical programs and accelerator experience a plus. Work will involve construction, installation and test of RHIC vacuum systems. RHIC Project, Accelerator Development Department.

LF 5093. TECHNICAL POSITION - Requires BS in electrical technology, computer science or equivalent, or an associate's degree or equivalent in these fields plus at least one year of relevant experience. Primary responsibility will be NSLS experimental safety operations. Duties include safety-system checkouts and monitoring user safety and conduct of experiments at the beam lines. Shift work is required, and some cross training will be done with storage-ring operators. National Synchrotron Light Source Department.

LF 0153. BIOLOGY ASSOCIATE POSITION - Requires BS in biology or physics, as well as familiarity with protein-purification techniques, high-vacuum systems, automation of systems using a PC, and FORTRAN programming. Responsibilities include working on low-resolution structural studies at HFBR. Biology Department.

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BROOKHAVEN BULLETIN

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ANITA COHEN, Editor
MARSHA BELFORD, Assistant Editor
LIZ SEUBERT, Reporter

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Classified Ads (cont'd)

Motor Vehicles & Supplies

87 TOYOTA MR2 - 65k, black, perfect cond., sunroof, mag wheels, spoilers, ac, cass. stereo, brand-new tires, \$5,750. Roy, Ext. 7357.

87 NISSAN MAXIMA - ac, sunroof, cruise, am/fm cass., p/s, p/l, p/w, a/t, mint, must see, asking \$7,200. Jim, 758-0393 after 6 p.m.

86 MERCURY TOPAZ - 4-dr., p/s, p/b, ac, am/fm cass., 68k mi. Mardor, Ext. 4830 or 341-1059.

86 SUBARU GL-10 - 4wd turbo wagon, loaded, mint, \$3,600; 86 Jeep Cherokee Pioneer, great vehicle, \$3,950. Henry, ext. 5214 or 727-7227.

85 CAMARO Z28 - excel. cond., all power, T-tops, 92k mi., red, black int., 5-spd., orig. owner, \$4,300. 878-2239.

85 HONDA INTERCEPTOR MOTORCYCLE - excel. cond., ask. \$1,900. John Turner, 732-9138.

85 OLDS CRUISER WAGON - cass., roof rack, 84k mi., good cond., \$2,500 neg. Pat, 727-0547.

85 FORD ESCORT - white, a/t, p/s, p/b, 4-dr., hb, 80k mi., new parts, \$1,100 or best offer. Vishwas, Ext. 3087.

85 PONTIAC GRAND AM - 2-dr., gray, high mi., all highway, a/t, ac, p/s, orig. owner, good cond., \$2,100. Gary, Ext. 3473.

91 MAZDA PROTEGE LX - black, a/t, all avail. options, 8k mi., fully warranted, showroom cond., \$9,850. Art Piper, Ext. 5215.

91 PROBE - a/t, a/c, am/fm tape, extended warranty, like new, 9k mi., \$12,000 firm. Alan, Ext. 2928 or 929-0461.

89 BUICK REGAL - V6, loaded, showroom cond., NADA ret. value \$8,500. Ext. 3711 or 244-7284.

88 MAZDA RX7 - convertible, red, every option, mint. 286-3363.

88 TOYOTA PICKUP - 4x4, brown, cap, a/c, stereo, alarm, mint, \$7,900. Charles, 728-1931.

87 TRAILER - 21', Hi Point, fully enclosed, f/g, rear ramp, side door, tandem wheels, asking \$3,500. Bob, Ext. 4672 or 929-4753.

87 NISSAN PICKUP - a/t, 4-cyl., 44k mi., tool box, bed mat, asking \$5,000. 654-2928.

87 RENAULT ALLIANCE - baby blue, tinted windows, a/c, a/t, new stereo, \$1,600 neg. Crystal, Ext. 2883.

87 SUZUKI SAMURAI - 5-spd., 50k mi., excel. cond., \$2,800. Bob, 447-2110 after 5 p.m., leave message.

86 CHEVY CAMARO - blue, V6, a/t, a/c, p/s, new tires, excel. in/out, asking \$3,750 neg. Melanie, Ext. 5141 or 874-2001.

83 PONTIAC 6000 - 62k mi., orig. owner, excel. cond., no frills, must see, \$2,000. Paul, Ext. 3790.

82 FORD LTD WAGON - brown & wood grain, 302 eng., good tires & brakes, clean body, 77k mi., \$700. Richie, Ext. 4030.

81 FORD ESCORT - 120k mi., runs well, am/fm cass., \$600 neg. Dave, 475-7891.

Boats & Marine Supplies

25' MORGAN SAILBOAT - in water, free use of mooring, recent OB & sails, \$4,500. Steve, Ext. 4008 or 821-0686.

19' FOUR WINNS - 1987 cuddy, 190-h.p. FWC Mercuriser I/O, full canvas, \$7,000. Michael, Ext. 2081 or 878-9384.

19' BAYLINER - 1987, open, 125 h.p., full canvas, power lift, radio, low hours, must sell. Ext. 2642.

18' HOBIE CAT SAILBOAT - 1990, w/trailer, hardly used, excel. cond., \$4,000. 473-1456.

18' CATAMARAN SOL-CAT - w/trailer, beach wheels, \$1,375. 821-0686.

18' GLASTRON BOWRIDER - seats 6, 75-h.p. Evinrude, full canvas, E-Z loader trailer, in water, \$2,100. 369-0432.

16' BOWRIDER - f/g, 65-h.p., galv. trailer, runs well, \$1,100. Jim, Ext. 3372 or 821-0250.

14' ALUMINUM BOAT - 9.9-h.p. Johnson, galv. trailer, \$800. Al, Ext. 5128.

WELLCRAFT ST. TROPEZ - 1987, full electronics, every option, must see. 286-3363.

CANOE - Old Town, sailing rig, used once, \$200. Bob, Ext. 4044.

WINDSURFER - for beginner or intermediate, complete, ready to sail, \$300. Camille, 325-1756.

Furnishings & Appliances

AIR CONDITIONER - Sanyo, 5,000 Btu, \$75. Al, Ext. 5128.

AIR CONDITIONERS - 2, Emerson, high efficiency, 7,000 Btu, used 2 yrs., \$150/ea. or \$250/both. Irving, Ext. 2827.

BEDROOM SET - king-size headboard, triple dresser w/mirror, single dresser, \$250; 2 dry sinks, \$50/ea. Ext. 4519.

CHANDELIER - 10-light, brass, like new, \$50; elec. stove, two ovens, good cond., \$50. Roger, Ext. 7518 or 878-8847.

COUCH & CHAIR - gold stripe/green, \$100; swivel rocker recliner, brown, \$50; swivel rocker, gold/green print, \$25; all excel. cond. Paul, 727-4859.

LIVING ROOM - couch, loveseat & chair set, excel. cond., \$350. John, 563-6596 or 563-9223.

SOFA CHAIR - wingback, white/beige slipcovers, blue/white slipcovers, good cond., \$400. Ext. 4697 or 744-9423.

KITCHEN TABLE - round, light wood, folds on 2 sides, 2 folding chairs, \$75. 474-3799 afternoons.

DINING ROOM - table, 3 leaves, 2 arm & 4 side chairs, china cabinet, buffet, all solid wood. Tony, 281-0350.

FURNITURE - dining room, French cherry; bedroom set, living room set, moving. Inan, Ext. 3372 or (718) 358-1321.

ELEC. RANGE - 30"; dishwasher; 22 cu ft. refrigerator, all copper tone, reas. Tony, 281-0350.

ELEC. RANGE - GE, self-clean, 3 yrs. old, orig. \$520, now \$200. Gene, Ext. 7113 or 751-2621 after 7 p.m.

STOVE - GE, double ovens, tan, v.g. cond., \$75. 281-7935 eves.

FREEZER - GE, upright, \$125; Sears refrig., frost-free, \$75; Kenmore carpet cleaner, \$100; antique sewing machine, in cabinet, \$75. Birdie, 924-6582.

SHOWER BASE - 38" corner, white, new, never installed, orig. \$200, now \$100. Sue, Ext. 3492 or 289-6844.

Tools, House & Garden

CHRISTMAS CACTUS - large, mature plant, pink flowers, \$15. Joe, Ext. 2898 or pager 0925.

LANDSCAPE TRAILER - 8'x10', w/gate & lights, 1 yr. old, \$650. John, Ext. 7623 or 7706.

LAWN MOWER - Honda, used 4 times, asking \$550. Annamarie, Ext. 2352 or 821-5247.

LAWN MOWER - \$7; used elec. motors, \$5/ea.; triple dresser, chest of drawers, 2 night stands, headboard, \$95. 878-6637.

GARAGE DOOR - w/opener & remote, like new, single car, \$350/both. Sue, Ext. 7235.

GAS GRILL - \$35; desk, \$20; hutch, \$20; patio umbrella, \$15; walnut lamp, \$20; anchor, \$5; weed wacker, \$20. Kathy, 744-2203.

GENERATOR - Sears, 2,500 watts, used 3 times, \$300. Ken, Ext. 2563.

RAILING - wrought iron, for house stairs, good cond., \$30. Mike, Ext. 4293.

SCREENS - for doors, 38 1/2"x31 1/2", two 28 1/2"x28 1/2", \$5/ea.; dorm-size refrigerator, used 1 semester, \$95. Pat, Ext. 3807.

SHUTTERS - Sears, white plastic, 4 sets 12"x50", 1 set 12"x71". 286-6858.

SKYLIGHT - 30"x30", vented, w/screen, new, \$100. Dave, Ext. 2109.

Sports, Hobbies & Pets

BICYCLE - Trek 400, 21" sport model, like new, \$290. Ext. 2604 or 473-2473.

BICYCLE - Univega Gran Turismo, touring bike, 19" frame, 15-spd., all alloy components, like new, \$200 or best offer. Alan, Ext. 2928 or 929-0461.

BIKE - BMX, 20", excel., \$35. Dave, Ext. 2109.

BIKE - Cilo Sport-SE, SIS gear, used twice, 30 miles, \$250; Cilo helmet, \$50. Larry, Ext. 4295.

CARRIER - for cat or rabbit, new, beige & chrome, 5 yr. warranty, \$17. 744-3069.

COCKATIEL - gray pearl, \$35; large bird cage, can also be used as perch, \$50. 584-5972.

ROTTWEILER PUPPIES - AKC, champion line, born 3/14, serious buyers, Chris, 654-1146.

LABRADOR RETRIEVER PUPPIES - black, AKC registered, sire and dam on premises, great w/children. 929-4993.

EXERCISE BIKE - Aergometer, pulse/mileage monitor, arms/legs; excel. cond., Ken, 744-1869 or E-mail, KYEE@BNLCL1.

GOLF CLUBS - beginner's, \$65. 689-9234.

PIANO - upright, tuned, good for beginners, \$375 or best offer. Pam, 475-2551.

PIANO - Hardman, upright, honey oak finish, 20 yrs. old, \$800 or best offer. Ken, Ext. 2563.

SURVIVAL GAME - equipment & access., many items, new, prices neg. Joe, 698-7347.

TREADMILL - small, portable, folds for storage, new, \$75. Sue, 289-7218.

Audio, Video & Computers

ALBUMS - jazz, rock, progressive, popular, disco, make reasonable offers. 474-3799 afternoons.

CAMCORDER - Panasonic Pro-Line AG-160, VHS, high-speed shutter, \$600. Harry, Ext. 3450.

COMPUTER TABLE - black wood, long, shelves. Gina, 744-4617.

EDITOR - 2 Pro-lite AG-1950 VHS hi-fi audio & AG-A95 editing controller, Panasonic, \$1,800. Harry, Ext. 3450.

GUITAR - electric, Aria Pro II Cardinal Series, case & amp, \$160. John, Ext. 4028.

GUITAR AMPLIFIER - Crate 640 XL, 12" speaker, 1 1/2 voice coil, 2 chan., reverb, 2 inputs, used once, 5 yr. warr., \$175. Jim, Ext. 7971 or 286-1358.

SOFTWARE - Manage Your Money & Paradox 3.0, both new, unused; 19" color TV, remote; 12" b&w TV. Rogers, Ext. 4222.

SPEAKERS - Polk Audio 2.3 TL, \$1,200. Marie, Ext. 2950 or 399-3401.

COLOR TV - RCA XL100, 19", stereo, remote, cable-ready, 99 channels, excel. cond., moving, \$180. Ken, 744-1869 or E-mail, KYEE@BNLCL1.

WORD PROCESSOR - Micom 2000, auto sheet feeder, orig. \$1,600, best offer. Rose Anne, 447-2110, leave message.

Miscellaneous

JUICER - fruit & vegetable, Moulinex, in box, orig. \$89, asking \$35. 474-3799 afternoons.

CAR SEAT - Suburban, long, new, \$15; Surdiac coal stove, MCK 516, self-feeding, high Btu, \$200; outside door, heavy, \$10. 878-6637.

COAT - burgundy, wool, 4/6, \$50; gray tweed suit, 6, \$40. Gene, Ext. 7113 or 751-2621 after 7 p.m.

ENCYCLOPEDIA - Collins, 20-volume set, w/six yearbooks, \$60 neg. Walt, Ext. 7154.

LETTERING TEMPLATES - K&E, full sets, Greek, Eng., extras, \$150/set. Ext. 3492 or 289-6844.

MOVING SALE - small appliances, auto coffee-maker, small Sony stereo, dishes, silverware. Ken, 744-1869, or E-mail, KYEE@BNLCL1.

SUIT - man's, light wool, Euro., midnight blue, 40 jacket, 34 waist, new cond., \$95. 474-3799 p.m.

Free

KITTENS - special, gray, 5 weeks old, need a good home. Ext. 7861.

Yard & Garage Sales

CALVERTON - moving sale, 6/13-14, 9 a.m.-4 p.m., various items, clothing, small appliances, drapes, etc., 4 Calverton Court.

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



ROCKY POINT - moving sale, 6/13-14, 10 a.m.-4 p.m., 62 Patchogue Drive, behind Tall Tree Golf Course.

Lost & Found

FOUND - tire iron on Brookhaven Ave., 6/3. Jerry, Ext. 7427.

Real Estate

Real Estate advertised for sale or rent is available without regard for the race, color, creed, sex or national origin of the applicant.

For Rent

BROOKHAVEN HAMLET - 1-bdrm. apt., l/r, kit., fully tiled bath, furn. or unfurn., cable TV, priv. ent., immaculate, no pets, mature single only, \$575/all. Fred, Ext. 4798 or 289-4798.

CORAM - 1-bdrm. apt., priv. ent., kit. bath, fenced yard, immed. occup., \$650/mo. single, \$700/mo. couple. 473-0278.

EAST MORICHES - 2-bdrm. apt., entire ground floor of Victorian house, yard, 3 blocks to bay, shops, school, avail. starting July for \$630/mo. plus util. Mona, Ext. 5056 or 878-9384 eves.

MIDDLE ISLAND - 2-bdrm. condo, 1 1/2 baths, part. furn., all appl., tennis, pool, clubhouse, 5 min. to Lab, \$875/mo. + util. 751-8351.

N. SHIRLEY - room in clean, quiet, 3-bdrm. ranch, w/d, kit., priv., 5 min. from Lab, no pets, \$80/wk. + 1 week security. Bob, 281-7432.

PORT JEFFERSON - large furn. room, nonsmoker, clean/quiet, \$100/wk. 473-6432.

PORT JEFFERSON STATION - 1-bdrm. apt., ground floor, \$500/mo. incl. util. 757-1973.

PORT JEFF. STA./MT. SINAI - 3-bdrm. home, 1 bath, quiet, w/d, full bsmt., cable, fenced yard, trees, garden, partly furn., low util., 9/92-8/93, \$875/mo. plus. Todd, 473-5281.

PORT JEFFERSON STATION - 1-bdrm. walk-in apt., ac, own heat & hot water, priv. home, \$600/mo. incl. all. Bob, Ext. 2309 or 473-9180.

RIDGE - 2-bdrm. townhouse, 1 1/2 baths, l/r, d/r, neutral colors, 5 min. to Lab, \$750/mo. + util. Suzzette, 399-2159 eves.

RIDGE - 2-bdrm. condo, 1 1/2 baths, l/r, d/r, kit., fully carpeted, w/d, 5 min. from Lab, \$750/mo. Kathy, Ext. 2267 or 395-6520 after 6 p.m.

SHIRLEY - 2 1/2-rm. apt., single employed person, nonsmoker, \$450/mo. Helen, 281-6263.

SHIRLEY - new, furn. apt., bdrm., l/r, eik, bath, w/w, cable, all util., mature, single, priv. ent., patio, fenced, no pets, \$575/mo. + sec. 399-0775.

SHOREHAM VILLAGE - 3-bdrm. ranch, l/r, d/r, full bsmt., 3 full baths, 2-car gar., wooded, 1 acre, owner on sabbatical for 1 yr., avail. 6/92-12/92, \$1,300/mo. + util. S.U. Chung, Ext. 3885/3857.

SHOREHAM - 3-bdrm. house, 3 weeks, June 15-July 6, \$350/wk. neg. 821-6856.

SOUND BEACH - 1-bdrm. apt., full bath, kit.-l/r combo, cable, priv. ent., \$600/mo. incl. all. Jutta, Ext. 2671 or 744-3284 after 6 p.m.

HILTON HEAD, SC - 2-bdrm. condo, sleeps 6, fully furn., 2 baths, beach, golf nearby, April-Sept., \$450/wk. Guy, Ext. 3147 or 689-5378.

NEW PORT RICHEY, FL - 2-bdrm. waterfront condo, sleeps 6, boat slip, pool, sauna, jacuzzi, priv., golf & beach, \$600/mo., \$250/wk. summer, lux. bldg., near Tampa Bay. Roy, Ext. 7357.

SINGER ISLAND, FL - 2-bdrm. apt. on ocean,, 2 baths, furn., ac, pool, just north of Palm Beach, 1 mo. min. rental. Joyce, 289-5770.

ST. MAARTEN, NETHERLANDS, ANTILLES - week of Oct. 10-17, condo, sleeps 6, kit., l/r, bdrm. 2 baths, balcony overlooks town & harbor, pool, beach, restaurants, casino. John, 924-4262.

For Sale

BROOKHAVEN HAMLET - 3-bdrm. cedar shake Cape, 1 1/2 baths, lg. l/r, d/r, eik, spa rm., lg. unfin. bsmt. w/shop, 2-car gar., att. utility bldg., docking rights, low taxes, \$175,000. Hurst, Ext. 3844.

BROOKHAVEN HAMLET - 4-bdrm. Col., 2 1/2 baths, l/r, d/r, fam. rm. w/tp, eik, laundry rm., 2-car gar., full bsmt., lg. screened porch, priv. setting on cul-de-sac, \$265,000. 286-3372.

CENTER MORICHES - spacious 4-bdrm. Col., oversize l/r, d/r, eik, TV & laundry, deck, att. gar., 10 min. to Lab, walk r/s, schools, bay, pub. dock, 100'x100', \$185,000 neg. Marilyn, Ext. 2259.

CENTER MORICHES - 3-bdrm. house, 1 1/2 baths, l/r, d/r, eik, w/d, full bsmt., att. gar., city water, central vac, 0.25 acre, \$130,000. Susan, Ext. 7235.

E. SETAUKET - historic dist., 3VSD, 4-bdrm. Worthington Col., 2 1/2 baths, 2-car gar., bsmt., new siding & roof, park-like yard, \$239,000. 689-8548.

E. SETAUKET - 3VSD, 4-bdrm. hi-ranch, 1 1/2 baths, gar., fenced yard, patio, deck, w/w, new roof, dw, refrig., 100x150, \$129,900. 286-8314.

FARMINGVILLE - 2-bdrm. ranch, vinyl sided, new windows, new driveway, 150'x 50' lot, low taxes, Sachem SD #5, full bsmt., move-in cond., \$110,000. 736-7603.

HOLTSVILLE - 2-bdrm. ranch, l/r w/tp, fd/r, app, taxes, \$1,600, fenced yard, Sachem schools, assum. mortg., \$99,000. 289-1732.

LAKE GROVE - 3-bdrm. hi-ranch, l/r, d/r, new eik, den, 1 1/2 baths, 2-car gar., new carpets, remodeled bath, Andersen windows, vinyl siding, covered patio, igs, \$159,500. 588-6417.

MANORVILLE - 1 acre, 5-bdrm. ranch, eik, l/r, pantry, foyer, laundry, igr, vinyl siding, bsmt., 1 1/2 baths, low taxes, screened patio, wood or coal stove, conv. location, \$125,000. 472-2414.

MIDDLE ISLAND - Fairview at Artist Lake, 2-bdrm. condo, 1 1/2 baths, cac, GE appl., French doors, clubhouse, pool, mint cond., 5 min. to Lab, must see, \$86,000 neg. Mark, 924-1561.

MIDDLE ISLAND - lakefront 2-bdrm. co-op, upper unit, clean, bright, newly painted, l/r, d/r, kit., all appl., cac, gas heat, w/w, pool, tennis, clubhouse, 10 min. to Lab. 924-5282, leave message.

MT. SINAI - 2-bdrm. ranch, 3/4+ acre, 1 full bath, l/r, kit., dinette, bsmt., oversized gar., \$120,000. 473-6432.

MT. SINAI - 4-bdrm. house, split-floor plan, 1 1/2 baths, den, fp, bsmt., greenhouse, d/r, l/r, 2,000 sq. ft., new windows & furnace, park-like, excel. schools, N of 25A, ask. \$179,500. 473-8717.

N. SHIRLEY - 5-bdrm. hi-ranch, 2,400+ sq. ft., det. gar., loft, 2 baths, eik, l/r, d/r, den, 1/2 acre, decks up/down, city water, easy conv. to M/D, 5 min. to Lab, \$149,000. Debbie, 924-4914.

N. SHOREHAM - 3-bdrm. L-shaped ranch, d/r, sunken l/r, eik, oak floors, fin. bsmt., work rm., 2-car gar., parklike 1/2 acre, igs, deeded beach rights, \$179,900. Mike, Ext. 5972 or 744-4579.

PORT JEFFERSON - 3-bdrm. split, 2 baths, l/r, d/r, eik, den, part. fin. bsmt., lg. screened patio, gar., attractive 0.4 acre, walk to harbor, great loc., 3VSD, low taxes, \$169,000. 331-7143.

RIDGE - 3-bdrm. ranch, country kit., 2 1/2 baths, laundry/mud rm., fenced yard on 1/3 acre, ideal M/D, 3 mi. from Lab, \$127,000. Carol, Ext. 2673 or 744-8632.

RIDGE - 4-yr.-old 3-brm. ranch, 2 baths, cac, 5 min. to Lab, 3/4 wooded acre, \$139,000. 821-1455.

SAYVILLE - 5-bdrm. family home, 3 baths, excel. cond., near shopping, walk to LIRR, 25 min. to Lab, owner motivated, Jim, 589-1875.

SHOREHAM - 3 bdrm., 2 full baths, lg. driveway, walk-in closets, priv. res., beautiful view, kit., l/r, d/r, deck, fenced yard gar., or rent to working couple, no pets. Gina, Ext. 2396 or 744-4617.

SHOREHAM - 3-bdrm. ranch, full fin. bsmt., l/r w/tp, fam. rm., 2 1/3 acre, lg. deck, 1 1/2 car gar., SWR schools, ask. \$155,000. Ken, 744-0722.

S. SETAUKET - 4-bdrm., 2 1/2 baths, handyman's special, 2-car gar., lg. lot, 3VSD. 331-4768.

SPEONK/WESTHAMPTON - 2-bdrm. Liberty mobile home, 60'x14', eik, w/d, d/w, bay window in l/r, 10'x10' shed, family park, \$35,000. Dave, Ext. 5460.

SPEONK/WESTHAMPTON - 2 bdrm., 1 1/2 baths, cac, balcony, w/w, carpeting, skylights, 5 appl., 20 min. to Lab, must sell, \$119,500. Rich, Ext. 4834 or 325-8336.

WADING RIVER - priv. beach comm., 3-bdrm. ranch, cac, 1 1/2 baths, fd/r, eik, all appl., fin. bsmt., shed, deck, treed, cac, County water, 1/2 acre, \$128,000. 929-4701.

WADING RIVER - on beachfront, 10 rm. year-round house, 5 bdrm., 2 baths, d/r, l/r w/tp, upper/lower decks, full bsmt w/ apt. w/sep. ent., incl. adj. lot, SWRS, \$275,000. Kathy, 929-8443.

YAPHANK - Colonial Woods condo, 5 min. to Lab, 2 bdrm., 1 1/2 baths, fin. bsmt., wet bar, rec. facil., red. to \$99,000. Monica, 924-3846.

PALM BAY, FL - near Melbourne, 2-bdrm. condo, 2 full baths, l/r, d/r, kit., w/d, pvt. screened patio, completely furn., heated pool, \$55,000 or rent long-term or monthly. 732-2588 after 5 p.m.

OCALA, FL - corner property, zoned for townhouse, water & elec., close to Orlando, \$18,000 neg. 929-3298.

ITHACA, NY - 2-bdrm. mobile home, 2 baths, 14'x70', 5 min. from Cornell Univ., lots of extras, quiet location, perfect for young fam., couple or students, ask. \$18,000. Dave, 821-7179.

WASHINGTON, NC - 1.13 acres, wooded on priv. property, boat slip on Pamlico River, \$38,000. Ken, 281-5565.

SHAWNEE, PA - timeshare week #40, kit., d/r, sleeps 6, fp, golf, indoor pool, horseback riding, rafting, canoeing, \$8,000 neg. Tom, Ext. 5350.

HUBBARDTON, VT - 38 deeded acres, situated on town-maintained road w/power & phone, largely wooded w/view of Lake Bomoseen, ask. \$34,000, neg., terms avail., Tom, Ext. 2833.

Wanted

APPLEWORKS MANUAL - or equivalent. Gene, 286-6858.

APARTMENT - 2-bdrm., ground floor, no bsmt., for a couple w/infant, month-to-month, and reas. rent, for 8/10. Roy, Ext. 7357.

APARTMENT - 2-bdrm, Exit 49. Ext. 2396.

APARTMENT - for eve. student, 10 mi. max to Lab, \$450/mo. incl. Mike, Ext. 7518.

APARTMENT - Swedish family of 5 for July or part of July. Strand, Ext. 7660.

BLOND WIG - preferably long. Ruth, Ext. 4173.

BOOKS - for a beginner, age 7, hard-covered pref. Marja, 821-4721.

CANOE - 15'-17', alum. or fiberglass. John, Ext. 7671 or 765-1299.

GARDEN & ART LOVERS - for trip to famed Longwood Gardens & Wyeth museum; Sat. June 27, bus \$20. Liz, Ext. 2346.

HOUSEMATE - female professional to share 2-bdrm. condo, 1 1/2 baths, in Middle Island, clubhouse, pool, \$450/mo. + 1/2 util. 751-8351.

HOUSE - to rent, 3/4 bdrm., SWRS, for visiting scientist, Sept. 92 for 1 yr. Brian, Ext. 2369 or 929-5407.

HOUSE TO SIT - free, experienced, reliable, caring, avail. any period 6/19-7/31 and after 9/1. J. Allentuck, Ext. 2412.

LAWN TRACTOR MANUAL - Sears LT/10, Model 502.25800, early 70s, would like to copy. John, Ext. 2172.

LAWN MOWERS & LAWN TRACTORS - old, complete. Dan, Ext. 4987 or 698-7322.

OUTBOARD MOTOR - long shaft, 7-15 h.p. Bill, Ext. 2171.

ROOMMATE - female, share 4-bdrm. house, 1 1/2 baths, furn., 10 min. Lab, quiet neighborhood, Center Moriches, \$350/mo. Marilyn, Ext. 2259.

TOM WANG - Please call Miki about your deposit. 473-7460.

TRAILER WHEELS - 11", 5 lug. Sharon, Ext. 5919 or 722-3010.

TUTORS - German lessons, piano lessons fo children. Ext. 7849 or 341-1005.

In Appreciation

Thank you to everyone who came to my retirement farewell, for the flowers, cards, surprise luncheon and good wishes. A special thank you to all my devoted custodians who were always 110% behind me for those last-minute inspections and demands. With your cooperation, we always got the jobs done on time. — Anna Grog

Ads left out of this issue due to lack of space need not be resubmitted to appear in the next issue.