

## Richard Hahn Wins ACS Nuclear Chemistry Award

The American Chemical Society (ACS) has named Richard Hahn, a senior scientist in the Chemistry Department, the winner of the 2000 ACS Nuclear Chemistry Award.

Established in 1955, the award is given annually by the ACS to recognize outstanding scientific achievement in the field. At a ceremony held during the March 28 ACS meeting in San Francisco, Hahn was presented with a citation and an award of \$3,000.

Hahn is the fifth of a distinguished group of scientists at BNL who have won the ACS Nuclear Chemistry Award. The others were: Raymond Davis, in 1979; Alfred Wolf, 1971; Gerhart Friedlander, 1967; and Jacob Bigeleisen, 1958.

"I am very pleased that the members of the ACS award selection committee, my peers in the nuclear chemistry community, thought my research accomplishments were worthy of this honor, especially my studies at Brookhaven during the past 13 years," said Hahn. "Basic research in solar neutrinos is on the cutting edge of science, bringing together people from a variety of fields, physicists and chemists, experimenters and theorists, to determine if our present theories have to be recast to explain all the observed properties of neutrinos."

In 1987, a year after joining BNL, Hahn led the U.S. team in the interna-



Roger Stoutenburgh

*Hahn was cited for his "leadership role in experiments for the detection and measurement of solar neutrinos, for wide-ranging investigations of chemical and nuclear properties of the heaviest elements, and for numerous nuclear reaction and spectroscopy studies."*

tional collaboration that built and operated the GALLEX solar-neutrino experiment in the underground Gran Sasso National Laboratory in Italy. This experiment, which uses 30 tons

of gallium as the neutrino detector, was born out of research done at BNL in the 1970s.

Neutrinos are routinely produced in the sun as by-products of the nuclear fusion reactions that produce the sun's energy. GALLEX measures the number of these low-energy solar neutrinos, with important implications for nuclear physics, astrophysics and particle physics. Each month, neutrino collisions produce 5 to 15 atoms of germanium among the experiment's 260,000 trillion trillion gallium atoms. Hahn and his group were responsible for separating, purifying and collecting these germanium atoms with absolute accuracy. Hahn also played a central role in analyzing and publishing the GALLEX results.

Data from GALLEX and from four other solar neutrino detectors around the world appear to support the hypothesis that solar neutrinos are trans-

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## Coming Up

### All-Hands Meeting Wednesday, 4/19

An all-hands meeting will be held in Berkner Hall Auditorium and Room B at 2 p.m., Wednesday April 19, as part of a mandatory nationwide diversity stand-down training program recommended by the DOE Task Force Against Racial Profiling. On the agenda will be a videotaped message from the Secretary of Energy, Bill Richardson, and a talk on racial profiling.

As all employees cannot attend the meeting and some employees may leave early to celebrate Passover, the event will be videotaped. The videos will be used by managers for departmental diversity stand-down training to be completed by May 5 for all employees who did not attend the April 19 meeting.

### BNL Lecture, 4/26

On Wednesday, April 26, at 4 p.m. in Berkner Hall, Benjamin Burr, Biology Department, will give the next Brookhaven Lecture, "A Genetic Approach to Cotton Fiber Quality." All are welcome.

## First Images of X-ray Damage to Proteins

While attempting to "photograph" the chemical reactions of an important nervous-system enzyme, an international team of scientists, including BNL visiting biologist Joel Sussman, found that the "flash" they were using — a high-intensity beam of x-rays — was systematically destroying their target. The resulting "movie" of molecular images is the first-ever direct observation of how proteins break apart when exposed to high-energy x-rays.

"The observation was stunning," says Sussman, who began this work while on staff in BNL's Biology Department. Stunning because, previously, scientists believed radiation damage was nonspecific, or random. But the new study, performed initially at the National Synchrotron Light Source (NSLS) at BNL, and studies with other enzymes elsewhere confirm that the x-rays selectively break particular chemical bonds.

### Weak Links

"It looks as if we are seeing 'weak points' in protein structures that are particularly sensitive to ionizing radiation," says Sussman, who is now principally affiliated with the Weizmann Institute of Science in Israel. Certain disulfide bonds, which often bridge protein chains, and carboxyl acids, such as those found at an enzyme's "active site" where reactions take place, seem particularly vulnerable.

Understanding these weak links may lead to improved methods of preventing high-dose radiation damage.

Organisms are constantly exposed to radiation, mainly from natural sources, such as sunlight and cosmic rays, as well as man-made sources such as diagnostic X-rays. Knowing specifically how radiation damages

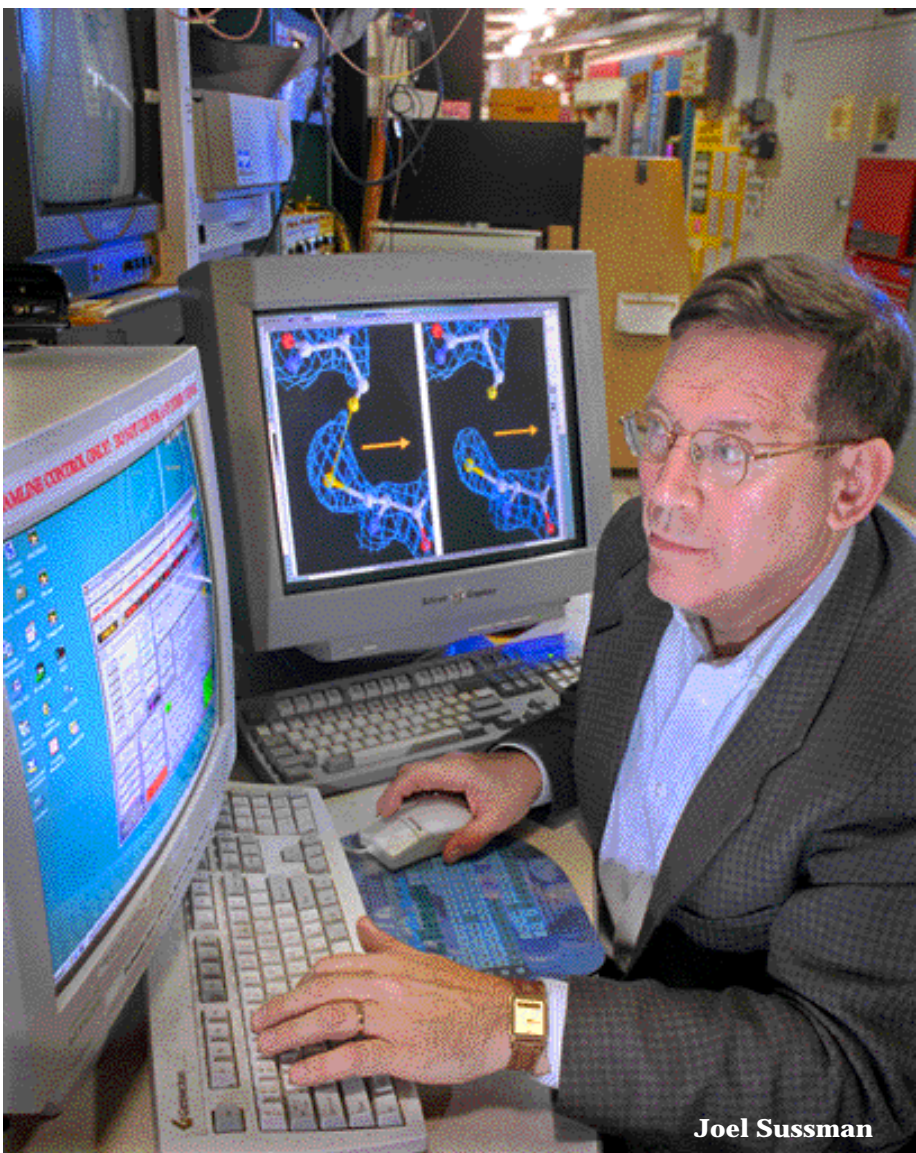
molecules may help scientists develop drugs that protect against radiation damage, says Israel Silman, also a guest scientist in BNL's Biology Department. The scientists plan to continue their collaboration to examine the anti-radiation potential of various substances that might be used to offer

general protection or in an emergency.

### Crystallography Studies

The findings of x-ray-induced damage, published in the January 18, 2000, issue of the Proceedings of the National Academy of Science (PNAS), also have implications for the use of x-ray techniques to decipher molecular

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Roger Stoutenburgh

Joel Sussman

## RHIC Blue Ring Circulates, Yellow On Deck

At the last update of BNL's Relativistic Heavy Ion Collider (RHIC) (see Brookhaven Bulletin of March 17, 2000), the cool-down of magnets and testing of power supplies was well underway. Once this was completed, on April 2, the RHIC team began injecting gold ions into the Blue Ring. So far, the beam has circulated at injection energy for up to 20 minutes. That's the equivalent of nearly 100 million laps around the ring for each bunch of gold ions. At press time, the operators were preparing to inject beam into the Yellow Ring as well.

"It was much simpler than last year to circulate beam," says Thomas Roser, head of the Accelerator Division. During last year's commissioning run, operators had trouble getting the beam to circulate for even a few laps. Obstructions in the beam pipe caused the ions to lose energy with each turn (see Brookhaven Bulletin of July 23, 1999). Eventually, the group managed to steer the beam around the obstructions to complete the commissioning.

The obstructions turned out to be due to deformed beam pipe bellows at certain locations around the ring (see Brookhaven Bulletin of January 14, 2000). About 200 of the bellows were replaced and their connections were braced and modified to ensure safe and reliable operations.

"Without the obstructions, the beam circulates with only very few correction magnets powered," Roser says. "This also shows that the RHIC magnets are very precisely positioned," he added.

The team is now working on setup of the radio-frequency (rf) system and extending the lifetime of the beam, to get it ready to accelerate to the energy needed for collisions. The target date for the first collisions is in early May.

— Karen McNulty

WalkAmerica 4/30

Join the BERA team on Sunday, April 30, at the March of Dimes WalkAmerica for Healthier Babies, to help raise support for programs of research, education, and local community services. To join the team, pick up a WalkAmerica sponsor sheet at the BERA Sales Office in Berkner Hall, weekdays, 9 a.m.-1:30 p.m. To participate without walking, mail a check made payable to the March of Dimes to the Recreation Office, Human Resources, Bldg. 185, or drop it off at the BERA Sales Office. For more information, call Andrea Dehler, Ext. 3347; or M. Kay Dellimore, Ext. 2873.

Integrated Safety Management Awareness

Here is the fourth of eight sets of general questions that all BNL managers, supervisors and staff should be prepared to answer during DOE's Integrated Safety Management verification scheduled for May 1 to 14. The italicized text gives examples of processes to reference.

**Managers:** What convinces you that the necessary hazard controls (including training) are in place before you allow your staff to do their work?

**Staff:** How do you know when it is "OK" to start a particular task/experiment/job?

*The Experimental Safety Review (ESH Standard 1.3.5) and the Operations Work Planning and Control processes (ESH Standard 1.3.6) are processes for ensuring hazards controls are in place and that the work fits within the facility capabilities/requirements documented in the Facility Use Agreement. Standard Operating Procedures are reviewed and kept current.*

For more information, contact Doug Ports at Ext. 2262 or ports1@bnl.gov.

X-ray Damage (cont'd)

structures. In x-ray crystallography studies, such as those at the NSLS, scientists bombard crystalline samples of proteins with high-intensity x-rays. By analyzing how the rays diffract, or bend, they work backward to decipher the protein's molecular structure.

Scientists typically perform these experiments at very cold (cryogenic) temperatures to minimize the damage caused by x-rays. But the current research, conducted at cryogenic temperatures, shows that these techniques do not completely prevent the introduction of inadvertent changes into experimental samples.

These findings may lead to changes in procedure to minimize this effect — for example, the counter-intuitive notion that less intensive radiation may provide more accurate results.

The experiments reported in this PNAS paper were conducted at the European Synchrotron Radiation Facility (ESRF) in Grenoble, France, using acetylcholinesterase taken from the torpedo fish. The earlier work at BNL used the same enzyme from humans and fruit flies. Additional experiments on a different enzyme, lysozyme, from hen egg white, were performed at the ESRF. Additional collaborators include other scientists from the Weizmann Institute, Holland's Bijvoet Center for Biomolecular Research, and the European Molecular Biology Laboratory Outstation in Grenoble, France.

The "movie" showing radiation damage to proteins is at: [http://www.weizmann.ac.il/home/ckryger/Radiation\\_Damage/](http://www.weizmann.ac.il/home/ckryger/Radiation_Damage/). — Karen McNulty

Peconic River Cleanup DOE Invites Public Comment

**William Medeiros, the Environmental Restoration Division's Project Manager for the Peconic River cleanup, presents information to the public at a meeting held at BNL on March 10.**

DOE is inviting public comment on cleaning up part of the BNL site, including a section of the Peconic River.

Peconic River sediments were investigated both on Lab property and beyond the Lab site as far as the Route 105 bridge, where the river meets Flanders Bay approximately 17 miles downstream from BNL's eastern border. Those investigations took place in separate studies from 1994 to 1999 and included a comprehensive analysis in 1999 for plutonium and related radionuclides.

Heavy metals such as mercury, copper and silver; organic chemicals such as polychlorinated biphenyls (PCBs); low levels of pesticides such as DDD — a product of DDT degradation; and radionuclides were detected in the river sediment. Most of the contaminants were found in the top six inches. As expected, contaminants are more prevalent in areas where more sediments are deposited by the river and decrease with distance down the river.

Human health risk from chemical contaminants for the current on-site industrial worker and the hypothetical future resident living near the sewage treatment plant, using reasonable exposure conditions, is within the U.S. Environmental Protection Agency's (EPA) guidance for acceptable risk range. Similarly, the radiological risk is within the current EPA guidance for acceptable risk range.

The proposed plan for cleanup recommends that Peconic River sediments containing copper, mercury and silver at concentrations above cleanup goals for ecological risk be removed, dried and disposed of at an off-site licensed disposal facility. This action will provide the greatest protection of human health and the environment.

The areas requiring remediation in the Peconic River will be defined by the levels of metals in the sediments. While the areas with elevated metal levels are cleared, PCBs, DDD and low-level radionuclides in the same locations would also be removed. Wetlands that would be affected by the cleanup will be reconstructed. Sewage plant soils that are contaminated above cleanup goals would be excavated and shipped to a licensed off-site disposal facility. Areas from which soil is removed would be backfilled and regraded.

The remedies currently proposed are still subject to public review and comment as well as regulatory agency acceptance. Additional information is available in the 12/99 Cleanup update or may be viewed at BNL's Web site at: [www.oer.dir.bnl.gov/ou5doc.html](http://www.oer.dir.bnl.gov/ou5doc.html). Public comments will be accepted until May 15. Comments may be mailed to George Malosh, Brookhaven Group Manager, USDOE Brookhaven Group, Bldg. 464, P.O. Box 5000, Upton, NY 11973-5000.



Roger Stoutenburg

Noon Recital April 19 BNL's Swinging Moose

In Berkner Hall at noon on Wednesday, April 19, BNL's own "Swinging Moose" traditional music group will perform Celtic music as part of the BSA Cultural Program Recital Series.

Swinging Moose members are Elaine DiMasi, Jeff Landgraf, Konstantin Olchanski, Sean McCorkle, Artie Scholtz and Peter Siddons, all BNL employees, who play traditional acoustic instruments including mandolins, guitars, hammered dulcimer, tin whistles, electric bass, xylophone, English horn and assorted percussion.

Audience members may bring lunch into the auditorium for this free event, and enter or leave at any time.

### HFBR Inventory Available

Due to the permanent shut down of the High Flux Beam Reactor, many spare parts and miscellaneous inventory components are available for possible use by BNL's departments and divisions. Items range from 400 HP motors to O-rings. Call the Reactor Division's Material Coordinator, Ray LoPresti, Ext. 5755, to arrange a time to review these materials, which will be transferred in accordance with BNL policies.

Arrivals & Departures

Arrivals		
Tina J. Keane	.....	Occ. Med.
Departures		
Kevin Dowd	.....	Plant Eng.
Alan Morgillo	.....	C-A
Randi Vogt	.....	Reactor

Hahn: ACS Award (cont'd)

formed into the other known neutrino types, or "flavors," as they travel to Earth. Such "neutrino flavor oscillations" would require the neutrinos to have mass.

Currently, Hahn and his group are responsible for several key chemical aspects of the newest neutrino detector, the Sudbury Neutrino Observatory, or SNO, located 6,800 feet below ground in a nickel mine in Ontario, Canada. SNO, which began collecting data in October 1999, is unique in that it is the only neutrino experiment that can detect the three known neutrino flavors. Observation of the products of these neutrino oscillations would constitute a "smoking gun" for the existence of neutrino mass.

Prior to studying neutrinos, Hahn did basic research on the properties and nuclear reaction mechanisms of the heaviest chemical elements, the elements that lie above uranium in the periodic table. He also co-discovered 23 radioactive isotopes.

Hahn first came to BNL as a research associate while completing his 1960 Ph.D. in nuclear chemistry from Columbia University. He then spent 25 years at Oak Ridge National Laboratory, including 10 as director of the transuranium research laboratory there. He returned to the Lab in 1986, was tenured in 1987, and named senior chemist in 1994.

Hahn's honors include the 1977 Radiation Industry Award of the American Nuclear Society, for charged particle activation analysis research, and the BNL Distinguished Research & Development Award in 1997. See [www.bnl.gov](http://www.bnl.gov), "News Releases." — Peter Genzer

If There's Conflict in the Workplace Report to the Committee on Conflict Resolution

Most BNL employees may feel they are unlikely to be faced with violence or threats on the job, but such behavior can and does happen. Lab policy requires that the offending behavior be reported so that it can be stopped, and the Committee on Conflict Resolution exists to help employees in such a situation.

The Laboratory is committed to providing employees, facility users, contractors, guests, and visitors with a safe workplace. Acts or threats of violence, obscene or harassing telephone calls, verbal abuse, and any behavior meant to intimidate others are examples of actions that are prohibited on site at any time. Violators of this policy will be subject to disciplinary action up to and including discharge, debarment from site, or criminal arrest and prosecution.

Employees, facility users, contractors, guests, and visitors are responsible for notifying BNL management if they are the subject of, the witness to, or have knowledge of violent acts or threats to themselves, others, or to Lab property. Notification may be made through a supervisor or any member of the Committee on Conflict Resolution.

A resource for people who believe that another person's actions may be a threat to their physical well-being, the Committee reports to the Assistant Laboratory Director for Facilities & Operations, Mike Bebon. Committee members are responsible for assessing and investigating on-site threats and incidents, resolving issues, and recommending disciplinary or legal actions, if necessary. The members recognize the sensitivity of information being supplied to them and will treat such information in a manner that protects the privacy of the reporting individuals. Regarding personal relationships outside BNL, where a valid Order of Protection or Restraint exists, the individual possessing the order should supply a copy to his or her supervisor and the Laboratory Police. BNL can then ensure a safe workplace by taking steps such as denying site access to the offending individual.

Committee on Conflict Resolution members are:

Bryce Breitenstein, Occupational Medicine Clinic, Ext. 3668; Joseph Gisondo, Employee Assistance Program, Ext. 4567; Michael Goldman, Director's Office (Legal) Ext. 3324; William Hempfling (Chair), Human Resources, Ext. 2878; Marge Lynch, Community Involvement, Government & Public Affairs, Ext. 4747; Russel Reaver, Safeguards & Security, Ext. 7759; Mary White, Information Services, Ext. 3489; Otto White, Safety & Health Services, Ext. 4248.

BNL Web Update

Next week, the Community Involvement, Government & Public Affairs Directorate will launch a new look for the main BNL Web site. The top-level pages will incorporate the Lab's new graphic identity, as well as update and add content.

'Take Our Daughters To Work' on April 27

On Thursday, April 27, the Lab will again participate in Take Our Daughters To Work Day.

On that day, about 200 daughters between the ages of 9 and 15 will spend the morning learning about their parent's job, and the afternoon visiting other locations throughout the Lab and the science museum. If visiting a parent's workplace could involve exposure to radiation, chemicals, or other potentially hazardous situations, a "host" parent should be found to chaperone the child during the morning. The Lab will help make such arrangements if the parent is unable to do so. Parents are also needed as bus chaperones on the afternoon tours.

If your daughter would like to come, complete the registration form sent to all employees and return it to Susan Foster, Human Resources Division, Bldg. 185, before April 19. For more information, call Foster, Ext. 2888.

Dress for Success Women's Business-Clothing Drive 4/17-19

BNL's Women's Program Advisory Committee (WPAC) is coordinating a program between the Town of Brookhaven and Lab employees to give work-related clothing to women of low income who need suitable business outfits to wear for job interviews.

Collection dates will be Monday-Wednesday, April 17-19. Please provide clothing suitable for an interview. Clothes should be in excellent condition, dry cleaned or freshly laundered and on hangers. Sizes 16 and up are especially needed. Bring donations to a contact person listed below.

**Acceptable items include:** Women's business suits, blouses, new packaged panty hose, and handbags.

**Unacceptable items include:** Dresses, undergarments, shoes, used pantyhose, men's clothing.

Contact Person	Bldg.	Ext.
Pat Durcan	460	5406
Eva Emmerich	911B	4758
Donna Grabowski	535	2720
Stephanie LaMontagne	1005	7141
Vicky McLane	197D	5205
Marilyn Pandorf	185	5251
Michiko Tanaka	477	7761
Elaine Taylor	902	4075
Dorry Tooker	179A	2078
Arling (Wu) Zhang	911A	5369

BROOKHAVEN BULLETIN

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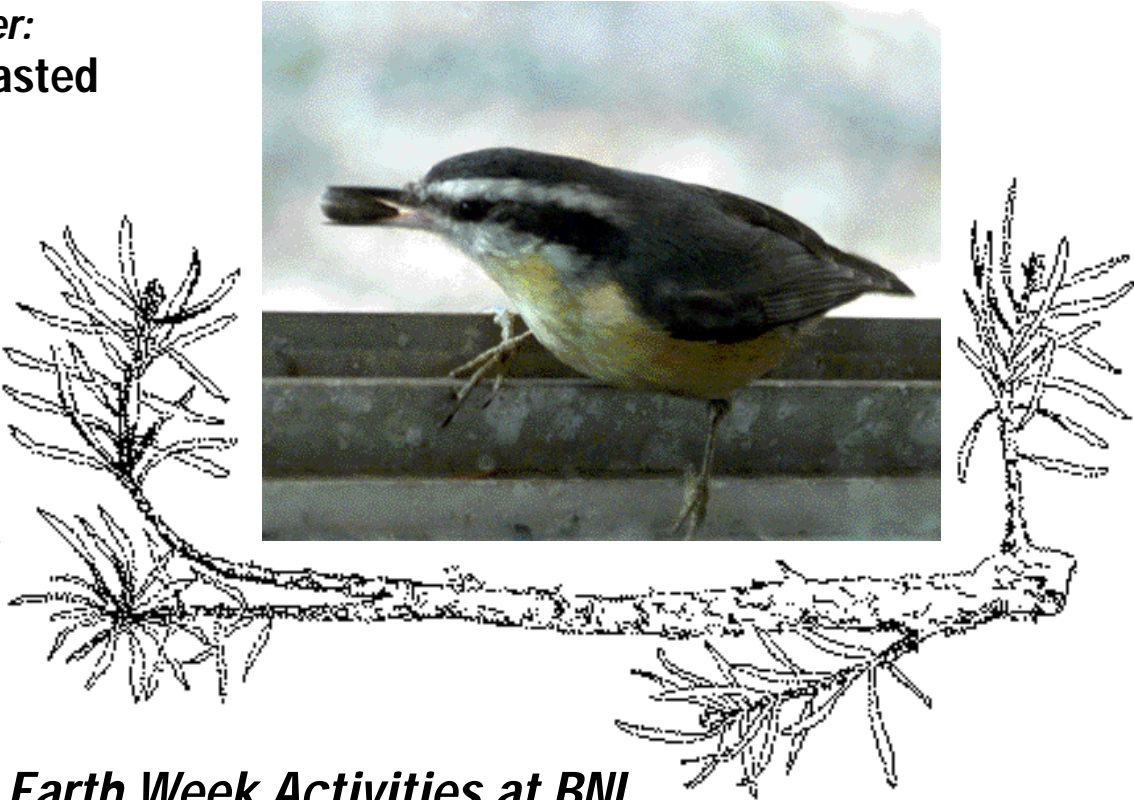
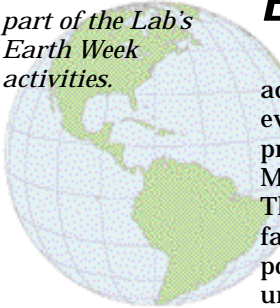
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On the World Wide Web, the Brookhaven Bulletin is located at [www.pubaf.bnl.gov/bulletin.html](http://www.pubaf.bnl.gov/bulletin.html). A Weekly Calendar listing scientific and technical seminars and lectures is found at [www.pubaf.bnl.gov/calendar.html](http://www.pubaf.bnl.gov/calendar.html).

A BNL Site-User: The Red-Breasted Nuthatch

This little red-breasted nuthatch, photographed at BNL by Roger Stoutenburgh, has the white stripe above and black stripe through the eye that distinguish it from other members of the nuthatch family. Commonly found among conifers in many parts of the U.S. and Canada, this small bird may be among those that will be glimpsed on the escorted birding field trips to be held tomorrow on site as part of the Lab's Earth Week activities.



Earth Week Activities at BNL

To celebrate Earth Day on Saturday, April 22, staff from across the Lab have organized activities from April 15 through 22. All employees are encouraged to participate. Scheduled events include: birding tomorrow; displays all week at Berkner Hall, including a display presented by the U.S. Fish and Wildlife Services on Wednesday, April 19; a nature walk on Monday; a talk on the Pine Barrens on Wednesday evening or on environmental monitoring on Thursday at noon; an office supply swap; a dirty sock contest; a running race, face painting, family fun, and a mountaineering slide show on Saturday. More information is available on posters around the Lab, in the Bulletins of March 31 and April 7, 2000, and at [www.bnl.gov](http://www.bnl.gov) under "Earth Day Events."

T-Shirt Design Contest

BNLers, your originality and design skills are needed: Use them to enter the Science Education Center's T-Shirt 2000 Design Contest. Each entry must include:

- Brookhaven National Laboratory
- Science Education Center
- Summer 2000
- an original design.

Prizes will be awarded for the winning entry: a winning design T-shirt, movie tickets, and maybe more!

Submit all entries by Friday, April 21, to Y. Renée Flack, Bldg. 438. For more information, call Ext. 3316.

Site Service Station

The on-site service station, Upton Industries, Inc., will host an open house 5-7 p.m. on Wednesday, April 19, to answer questions about auto services and the new IM 240 emissions testing. Also, until April 21, the service station offers these specials: oil changes at \$19.95, and at \$18.95 when also having a New York State (NYS) inspection; coolant flush at \$29.95.

In addition, windshields can now be replaced on site, for which all insurances are accepted. For more information, call Ext. 4034.

BERA Bus Trips

BERA bus trips include round-trip transportation on a fully-equipped coach bus, and admission to the advertised event. All trips leave strictly on time from the Brookhaven Center; if requested, an extra pickup will be made at the "park and ride" at L.I.E. Exit 63.

Tickets are sold first come, first served. To purchase tickets, go to the BERA Sales Office, Berkner Hall, weekdays, 9 a.m.-1:30 p.m. For more information, call Andrea Dehler, Ext. 3347, or M. Kay Dellimore, Ext. 2873.

Atlantic City, 4/29 — Last Call

On Saturday, April 29, join BERA's spring bus trip to Atlantic City to Resorts Hotel/Casino on the Boardwalk. The cost is \$25/person, with a \$14 coin return. The bus will leave at 8 a.m., so be there by 7:45 a.m. After a seven-hour stay in Atlantic City, the bus will return by about 11 p.m. Movies, games and free rolls or donuts will be provided; bring your own coffee and juice.

To the N.Y. Yankees, May 5

On Friday, May 5, go with BERA to Yankee Stadium to see the New York Yankees play the Baltimore Orioles, starting at 7 p.m.

The cost is \$49/person for transportation and excellent box seats. The bus will leave at 4:30 p.m.; be there by 4:15 p.m. After the game, the bus will leave the stadium at approximately 10:30 p.m. to return to the Lab.

Defensive Driving

The training group of the Safety & Health Services Division will offer a six-hour defensive driving course on Saturday, April 29, 9 a.m.-3:30 p.m., in Berkner Hall, Room B. The course is open to BNL, BSA and DOE employees, BNL facility-users, and their families, at \$23 per person.

To register, send a check made out to Empire Safety Council, in care of Scott Zambelli, P.O. Box 670, Mount Sinai, NY 11766. All checks must be received by April 21. Include your phone number on the check in case you need to be contacted.

For more information, call Zambelli at 582-6544 Ext. 5877 (not the on-site Ext. 5877).

Environmental Safety & Health

BNLers Are Urged to Resolve Concerns

All BNL employees, facility users, contract workers and guests have an obligation to comply with the Lab's regulations on environment, safety and health (ES&H). All are also required to report any unsafe conditions within the workplace that may threaten their physical well-being or violate ES&H or other relevant standards.

These responsibilities are described in the Employee Guide, given upon arrival to all employees who receive benefits. The information is also contained in a four-page fact sheet: *BNL Summary, A Brief Overview of BNL Policies*, which is distributed to all other workers and guests when they arrive.

Avenues for reporting ES&H concerns are summarized as follows:

- Alert your line management.
- Report to the department or division's ES&H coordinator or facilities support representative.
- Those covered by a labor agreement may address ES&H concerns through the labor-grievance process.
- If you still believe a condition or practice violates BNL's standards, contact the Employee Concerns Manager, Susan Foster, Ext. 2888. If requested, Foster will make every effort to handle an investigation confidentially. To identify the problem, the individual reporting it fills out the Employee Concerns Reporting Form. Foster then notifies BNL's Deputy Director for Operations, who initiates an investigation. Once the complaint has been resolved, Foster responds to the individual who filed it. Foster's office also helps employees wishing to report cases of waste, fraud or abuse.
- If all other avenues have proved unsatisfactory, the concerned individual may call DOE's Brookhaven Area Office, Bldg. 464, Ext. 4363.

## Classified Advertisements

**OPEN RECRUITMENT** - Opportunities for Laboratory Employees and Outside Candidates.

MK2227. ASSISTANT SCIENTIST (reposting) - The Neutron Scattering Group is looking for a talented crystal grower to participate in an active research program on cooperative phenomena (superconductivity, magnetism, etc.) in transition-metal-oxide compounds. While the major goal is to prepare crystals suitable for neutron-scattering studies, complementary investigations using x-ray scattering, IR reflectivity, and photoemission techniques will be pursued in collaboration with other groups at the Laboratory. Requires a Ph.D. in physics, chemistry or materials science, demonstrated skill in the growth of transition-metal-oxide crystals, and experience with floating-zone technique. Under the direction of J. Tranquada Physics Department.

MK7981. POSTDOCTORAL RESEARCH ASSOCIATE - Requires a Ph.D. in chemistry, physics, materials science or surface science, strong background in surface science, and experience in UHV STM/AFM. Research will include preparation and characterization of well-defined surfaces and studies of surface reactions on in situ prepared surfaces. Under the direction of J. Hrbek. Chemistry Department.

MK7952. MANAGER, ENTERPRISE COMPUTING SERVICES - Position reports to the Chief Information Officer/Manager, Information Technology Division. Requires an MS in computer science or related field or equivalent experience and industry training, substantial experience in technology operations management, good problem solving and communication skills and strong customer service focus. Must have strong leadership skills and be a creative problem solver. Will be responsible for directing and managing the Enterprise Computing Section of the Division which consists of Network Services, WEB Services, Mail Services, Domain Services, LAN and Desktop Services, Telecom Services and the Customer Support Center. Will provide leadership and direction to the staff to support the mission of the Division, create an environment of operational excellence, participate in the IT Leadership council, and oversee the operation of the Brookhaven Computing Facility (including physical security, planning for capacity, and disaster recovery). Information Technology Division.

NS8534. PROGRAMMER/ANALYST POSITION - Requires a BS in computer science or a related field with at least three years' of system administration experience. Experience with network administration and administration of UNIX workstations is also required, as are strong organizational skills and demonstrated skills in problem solving. As part of a small team, will be responsible for the system administration of a large network of computers. Collider-Accelerator Department.

NS8529. COMPUTER ANALYST POSITION (reposting, term appointment) - Requires an advanced degree in computer science, physics, or related field and substantial experience in developing large-scale object-oriented scientific applications. In-depth working knowledge of OOD methodology (such as UML, design patterns, etc.), C++ (STL, idioms, etc.) and computational physics is essential. Good communication skills are also required. Familiarity with other programming languages such as FORTRAN, Perl, Java, JavaScript is highly desirable. Responsibilities include the design and implementation of the beam physics software for new accelerator control applications. SNS Project/Collider-Accelerator Department.

DD8616. TECHNICAL/COMPUTER SUPPORT POSITION - Requires an AAS degree in a related field, a minimum of five years experience maintaining and supporting computers running Windows operating systems, including 95/98NT, and familiarity with standard Microsoft Office applications. MCSE certification is preferred; network configuration and maintenance experience is desirable. Responsibilities will include: maintenance of the NSLS NT server, networking support, hardware and software support for the Computer Controls Group and support of desktop computers. National Synchrotron Light Source Department.

DD8607. PAINTER (term appointment) - Under minimum supervision performs wide variety of interior and exterior skilled painting operations on buildings, furniture and laboratory equipment. Prepares surface, removes paint, mixes paints and matches colors. Will use all methods of application as required. Must know use and application of paints, synthetics, bleaching materials, stains and similar products and proper use and care of painting equipment. Required to rig staging and scaffolding. Plant Engineering Division.

DD8606. HEATING MAINTENANCE ENGINEER A (term appointment) - Under minimum supervision, installs, operates and maintains oil burners and other heating and related equipment except in the steam plant in Bldg. 610. As necessitated by operational requirements, may work with steamfitters or stationary engineers in the steam plant in Bldg. 610 or as a steamfitter or stationary engineer on any other equipment for which the heating section is responsible. Plant Engineering Division.

### Motor Vehicles & Supplies

99 GEO TRACKER - convertible, 2wd, 5-spd., running lights, 190 dealer mi., list \$14,670, v. neg. Dave, 796-3043.

96 ROCKWOOD POP-UP - sleeps 6, 3-way built-in reffrig., heater, awning, screen rm., indoor/outdoor stove, extras. Donna, 736-0438.

95 EAGLE TALON TSI - red, 5-spd., turbo, 75k mi., runs well, \$10,000 obo. Michael, 878-4130 eves.

94 JEEP GRAND LAREDO - 80k mi., excel. cond., \$9,500. Ext. 4895.

93 DODGE INTREPID - green, new a/t & tires, 110k mi., \$4,500. Jim, Ext. 5537.

93 VOLKSWAGON FOX - blue, good engine, 120k mi., \$1,200 neg. Mike, Ext. 8085 or 689-3564.

92 FORD EXPLORER XLT - 4 x 4, a/c, c/c, sunroof, am/fm/cass., excel. cond., \$5,400. Peter, 742-0610 days.

91 EAGLE TALON - red w/gray int., a/t, 142k mi., \$2,700. Amy, Ext. 3135 or 399-6544.

90 GEO - white w/blue int., a/c, a/t, all records, runs well, good cond., \$1,500. Sheng, Ext. 8401.

89 VOLKSWAGON JETTA GL - 2-dr., 5-spd., new tires, needs work, \$500. Donna, 878-3992.

88 FORD CONQUEST 460 - 28' motorhome, p/s, p/b, c/c, sleeps 6, new awning, extras, 23k orig. mi., mint cond., \$16,500 neg. Carol, 472-2049.



## The Winners Are...

Tom Dilgen (left), Accelerator Magnet Division (AMD), and Laurie Pearl (right), Information Technology Division (ITD), have been elected to the Brookhaven Employees Recreation Association (BERA) Executive Board.

The BERA Board and Recreation Supervisor M. Kay Dellimore, Human Resources (HR) Division, warmly

thank Nancy Concadoro, HR, and Patrick Moylan Jr., Reactor Division, who also participated as candidates in the election, and outgoing Executive Board President Charles Gardner, Collider-Accelerator Department, for his sustained contributions to BERA plans and events.

On May 1, Dilgen and Pearl will join the other six Executive Board members: Tracy Blydenburgh, Reactor; Deborah Keating, Procurement & Property Management Division (PPM); John McCaffrey Jr., AMD; Luis Nieves, ITD/Lucent; Rosalie Piccione, PPM; and Ed Sperry IV, AMD.



Photos by Stoutenburgh

## Antique & Classic Motoring Club



The Brookhaven Antique & Classic Motoring Club is looking for members to "jump start" the new millennium. Annual membership dues are \$10. Weekly lunchtime meetings will begin on Wednesday, May 3, next to the Science Education Center, Bldg 438, DeRosa Lane. Contact Larry Fareria, Ext. 3203, fareria@bnl.gov, and Rich Machnowski, Ext. 2216, rmach@bnl.gov.

## Golf Tournament

The BERA Golf Association (BGA) will hold its first tournament of the year on Friday, May 12, at the Mill Pond Golf Course in Medford. All golfers are invited to play. The cost for this four-person scramble event is \$67 for 1999 BGA members and \$82 for non-members. The cost includes greens fees, carts, prizes, a full breakfast, and lunch. There will be a shotgun start at 9:00 a.m. To sign up, contact Jeff Williams, Ext. 5587, or jwilliams@bnl.gov. You do not need a foursome to enter.

The BERA Golf Association is also looking for substitutes for its regular league. If you are interested, contact Williams.

88 FORD CROWN VICTORIA - loaded, new batt. & trans., runs well, good cond., \$2,500. Jim, 476-2708.

87 BUICK CENTURY - Grand National engine, 6-cyl., 4-dr., needs timing chain, \$700 obo; 81 Buick Regal, V-8, good body, needs work, \$800 obo. Nancy, 591-4261.

87 DODGE RAM 50 - excel. body, needs motor work, \$600. Dan, Ext. 4987.

87 FORD COUNTRY SQUIRE - wagon, p/l, new batt. & tires, \$2,700. Nadine, 444-3487 or 698-6089.

86 CADILLAC FLEETWOOD - fully loaded, p/w, sunroof, runs well, ask. \$1,800. Maria, 399-1756.

86 MAXIMA - p/s, p/b, moon roof, alarm, new tires, Kenwood stereo, 134k mi., good cond., ask. \$2,400. Ext. 4867.

86 VOLKSWAGON CIROCCO - p/w, a/c, no rust, well maint., \$1,300. John, Ext. 3414 or 821-2602.

84 HONDA CIVIC - 3-dr., m/t, 147k mi., good station car, must sell, \$600. 286-2267.

82 SUZUKI 650G - 17k mi., excel. cond., \$1,200. Andy, Ext. 3837.

TIRES & RIMS - 3 sets of 4, 15" BF Goodrich w/chrome Crager rims, ask. \$150, 16", fits Nissan 300SX, ask. \$225. Dan, Ext. 4605.

UTILITY TRAILER FRAME - install 4' x 8' flatbed or rollers for boat, working lights, spare wheel, some rust, \$40. Tom, Ext. 7196 or 286-2505.

### Furnishings & Appliances

BEDROOM SET - twin-size, headboard, desk w/hutch, chest of drawers, oak, good cond., \$300. Jim, Ext. 3354 or 924-7374.

COUCH - beige, leather, 3-pc., sectional, built-in recliners, fair cond., huge, \$100. Jim, Ext. 3170.

CRIB - white, metal, damaged mattress, good cond., \$55; high chairs. Robin, 744-3902.

DINING ROOM CHAIRS - hi-back cane, 2 arm, 4 side, new cond., \$300 obo. Sue, Ext. 7235 or 399-7997.

DINING ROOM SET - table, 5 chairs, server, china cabinet w/light, excel. cond., \$250. 878-8263.

RANGE - Whirlpool, glass-top, self-cleaning, light, timer, clean, excel. cond., \$250. RoseAnn, 395-8382.

SOFA - convertible, matching chair and recliner, \$250. Ext. 4010.

TABLE - oak, pedestal, 36" round, \$300 obo. Mike, Ext. 2052.

### Tools, House & Garden

BOW WINDOWS - 2, Andersen, #C-34 w/screens, R.O., 4' 1.75" x 6' 1.5", \$750. 965-9797.

GARDEN CULTIVATOR - Sears, 3.5 h.p., \$39; snow shovel, Toro, elec., \$29; leaf blower/vacuum, 1 h.p., elec., \$19; ladder, 24', extension, \$19. Ralph, Ext. 2180.

GENERATOR - 2,600W, 120V, single phase, WWII collector's item, manuals, new parts for engine overhaul, \$300. Gordon, 477-2269.

LAWN TRACTOR - Sears Craftsman, 38" deck, elec. start, 5-spd. transaxle, 42" snow blade, excel. cond., \$875. 286-8849.

ROTOTILLER - Troy Built Horse, needs TLC, \$300. Andy, Ext. 3837.

TRACTOR - Sears, 15.5 h.p., hydrostatic drive, plow, chains, weights, mulching deck, garaged, orig. \$2,100, ask. \$1,100. Emil, 446-3198.

### Sports, Hobbies & Pets

BICYCLE - Ross Professional Grand Tour, lady's, 26", 10-spd., \$50. Gerry, 878-2872.

BIKE - Boss BMX, 24", TNT-Neck, Profile 3-pc. crank, Arraya rims, never used, ask. \$600. Anthony, Ext. 4867.

EXERCISE BIKE, electronic, ask. \$150; treadmill, Kathy Smith Flip Track, ask. \$100, all new. Ext. 4553.

GASOLINE LANTERN - \$9; sleeping bag, single, \$5. Ext. 2180.

LAB MIX - black, male, 21 mos. old, gentle giant, needs large yard, good bird dog. Fran, Ext. 3309.

MIN-PINS - AKC, avail. 6/30, mother & father on premises, both stag reds. Bobbi, Ext. 6047 or 654-1993.

UNICYCLE - excel. cond., \$45; roller blades, men's, size 10, \$30. Ext. 2457.

### Audio, Video & Computers

STEREO - Yamaha RXV-690 receiver, 300W, Dolby prologic, manual, remote, in box, new cond., orig. \$750, ask. \$350. Emil, Ext. 3172.

### Miscellaneous

JEWELRY - encapsulated flowers mounted on sterling silver for Mother's Day. Maria, 281-1441.

MINK COAT - circa 1970, size 10, good cond., needs cleaning, \$350. Robin, 744-3902.

PAINTING - watercolor, *Delos Runs*, Greece Alma Gallano Steuenson, 10/88, 19" x 25", framed, \$350. 878-8459.

SEWING MACHINE - Penncrest, in cabinet, uses knee peddle, some attachments, hardly used, portable, works well, ask. \$100. Nancy, 591-4261.

### Yard & Garage Sales

BROOKHAVEN - 4/15, 9 a.m. - 3 p.m., 183 Old Stump Road.

CORAM - 4/15, 9 a.m., 3903 Townhouse Drive, 2-family, clothing, furniture, jewelry, toys, games. Ronnie, Ext. 2587 or 451-7256.

### Free

COMPUTER - 386 PC, monitor, 3.5" & 5.25" drives, dot matrix printer. Ext. 7505.

SATELLITE DISH - 8', box, remote control, good cond. Kevin, Ext. 2431.

### Wanted

BARBECUE - propane, used, working cond., will pay \$50 - \$65; lawn mower, gas powered, used, good running cond., will pay \$75 - \$100. Donna, 874-3992.

JUNK CARS & TRUCKS - free removal. Rich, Ext. 4201 or 589-9103.

LAWN MOWERS & TRACTORS - complete only. Dan, 698-7322.

RENTALS - homes, apts., for BNL summer visitors & guests. Linda, Ext. 4489.

SPONSORS - to support Team Liberty, NY/NJ at the 2000 Transplant Games. Rich, Ext. 7013.

TICKETS - 2, NHIS, 9/17, NASCAR Winston Cup. Sherry, Ext. 7541 or 727-6714.

### 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 available in the Bulletin lobby, Bldg. 134.*

ARCHITECTURAL DRAFTING - new homes, alterations, 25 yrs. exp., many BNL customers. RJ, 929-8514.

ATTORNEY - real estate, wills, estates, matrimonial, injury, other, free consult., Lab disc. Anna, 874-7337.

BABYSITTING - Experienced, reliable 16 yr. old girl, avail. after school & eves., Port Jefferson area, refs. avail. Jennifer, 331-5642.

BAKED GOODS - Gloria's Gourmet Cookies, pies, cakes. Mark, 369-7476 or www.angelfire.com/ga2/gopisso.

BOAT MECHANIC - shrinkwrap, winterizing, repairs, I/O service, we travel to your boat, hauling avail. up to 25'. Rich, 281-1089.

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

BUSINESS CARDS - raised lettering, many colors, BNL cards available, letterhead, envelopes, fliers, carbonless forms. Steve, 821-8936.

CHILDCARE - all ages, experienced mother of one will care for your children, refs. avail. Tina, 395-4521.

CHILDCARE - by licensed, loving mother, references provided by BNL employees. Robin, 345-0298.

CHILDCARE - by loving mom in Ridge home, Associates degree in education, TLC, healthy snacks, reasonable, refs. avail. Tracy, 345-2128.

CHIROPRACTOR - Sayville area, neck, lower back pain, headaches, more, ins. accepted, no co-payments. Joan Santagelo, 563-1444.

CLOCK REPAIR - antique, modern, grandfather clocks a specialty, other, many years' experience, work guaranteed. 475-8971.

COMPUTER CONSULTANT - cust. built PCs, upgrades, servicing, troubleshooting, tech. support, pers. tutoring, complete computer care. Jason, 776-1352.

COUNSELING - experienced social worker, reimbursable for several ins. plans. Linda, 929-5860.

COUNSELOR - alcohol, drugs, codependency, education, interventions, 10 yrs. exp. helping family members of alcoholics/addicts. Millie, 821-5299.

DJ/KARAOKE - professional, ins., lights, give-aways, party packages, quality & excitement for all occasions. Carol, 281-5060.

DENTIST - full family and cosmetic dentistry, children welcome, free consultation, most ins., eves., Sats., emergency appointments, K-dental. 758-6565.

ELECTRICIAN - outlets, lighting, service upgrades, violations removed, cable & tel., security lighting, lic. & ins. Tim, 331-4683.

EMBROIDERY - custom designs, monograms, baby, bridal gifts, team shirts, children's clothes. Nancy, 878-5449.

GIFTS, JEWELRY - all occasions, \$10 - \$45. Maria, 281-1441.

GUTTER PROTECTION - patented design, keep your gutters clear & free-flowing, guaranteed, Lab disc., lic./ins., free estimates. Henry, 727-3440.

HEARING AIDS - small, canal-style, testing, fitting, top brand, 50-100% off list price, take ins. assign. Bob Stone, 878-6645.

HOME IMPROVEMENT - repairs & improvements, roofing, siding, reliable, reasonable rates. Brian, 399-0445.

HOME IMPROVEMENT - roofs, ext., dormers, decks, kit., baths, siding, lic., ins., refs. Chris, 286-1348.

HOME INSPECTION - pre-list/pre-purchase, comprehensive, prof. reports, clients welcome on inspec., Lab disc. Chris, 395-8810.

HOME REPAIRS - roofing, siding, complete care & service. George, 878-1178.

HOUSE CLEANING - Polish lady will clean your home weekly or biweekly. Teresa, 698-0851.

HOUSEKEEPER - will clean your home to your standards, w/schedule convenient to yours, even once a month, excel. refs. Jane, 874-4049.

IRRIGATION - ground sprinkler systems, installed, repaired, lic. & ins., certified backflow tester, all work guaranteed. Bob, 246-6020.

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

LAND CLEARING - trees, stumps, brush removed, topsoil graded, raked w/450 loader, \$100/hr. Tom, 878-1060.

LAWN MOWER/TRACTOR SERVICE - repaired, serviced, fast, reliable, have trailer will travel. Dan, 698-7322.

PAINTING - interior/exterior, sheetrock, taping, spackling, wallpaper, power wash, lic. & ins., Jim, 399-4912.

PAINTING - staining, int./ext., power washing, decks, spackle, free estimates. John, Ext. 5318 or 563-6596.

PAINTING - 25 yrs. exp., int./ext., professional, refs., BNL discounts. Bruce, 821-4643.

PARTY TENTS - we set up & take down, combinations & sizes avail. Fred Kuehl, 588-2268.

PARTY TENTS - let us cover your party, 20' x 20', \$120, 20' x 30', \$140, local delivery, includes setup & take down. Bill, 277-8442.

PHOTOGRAPHY - weddings, all occasions, free-lance, color and b&w. Rick, 874-4017.

PHOTOGRAPHY & VIDEO - w/photojournalistic style & experience, capture those precious moments of your life, especially b&w. John, 476-6848.

RESTRINGING - pearls & beads, restrung while you wait, call for an appointment. Lydia, 653-8011.

ROTOTILLING - up to 1 acre, free estimates, lawns or garden. Paul, 924-8143.

SEAMSTRESS - clothes made & altered, many refs. Donna, 727-7425.

SEAMSTRESS - children's spec. occasion attire, competition skating dresses, family alterations. Beth, 929-5890.

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

TAXES - prepared by tax consultant, your home or mine, servicing Lab people for almost 25 yrs., reasonable. John, 732-2472.

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

WATCH & JEWELRY REPAIR - Accutron & Rolex cert., batteries replaced, engraving. Ron, 653-8011.

WET SAW - for rent, 10" diamond blade for tile/brick work, \$35/day. Dennis, 878-0071.

WINDOW CLEANING - reliable courteous service, refs. avail. 289-4759.

WORD PROCESSING - meeting, business & personal typing needs, professional & accurate results, school, legal, Microsoft Word/WordPerfect. Sue, 929-2867.

YARD DECORATIONS - for all occasions, birthdays, anniversaries, new baby, graduation, etc. Sue, 209-0911.

### Farewell Gatherings

RETIREMENT PARTY - for Al Berretta, after 37 yrs., 4/28, 6 p.m. - 10 p.m., Bellport Country Club, all are welcome. Mindy, Ext. 2280.

RETIREMENT PARTY - for Larry Musso, 5/19, 6 p.m., Rockhill Country Club, hot buffet, cash bar, music, \$25/ea. Victor, Ext. 2238.

### In Appreciation

Many thanks to everyone who attended my retirement party and for the wonderful gifts. I will cherish the many friends I have made over the past 35 years — Fred Altrui.

Ad deadline is Thursday 4 p.m. for next week's Bulletin.