

## Something Inhibiting About New CRADA

Corrosion costs the nation the equivalent of about five percent of the gross national product, or almost \$3 billion annually. All metals except gold are unstable in air and can corrode, or react with the environment and are converted to more chemically stable forms.

While corrosion inhibitors have been successfully developed to slow this process, a new concern has recently arisen: Many inhibitors now in use contain phosphates or heavy metals that the U.S. Environmental Protection Agency has deemed environmentally unacceptable, and new legislation soon will exclude their use.

To try to overcome this dilemma, BNL has signed a Cooperative Research and Development Agreement (CRADA) with the large chemical firm W.R. Grace & Company and their water-treatment division Grace-Dearborn to develop and test new, nontoxic corrosion inhibitors.

BNL researchers will test the new inhibitors developed by Grace-

Dearborn using state-of-the-art techniques, including an *in situ* technique developed at Brookhaven called current-density mapping. BNL will thereby provide crucial data for the company to optimize the efficiency of these new inhibitors.

"About a decade ago, we adapted an improved current-density measuring technique, which was first used by biologists, to monitor the corrosion process continuously as it occurs," said metallurgist Hugh Isaacs, Department of Applied Science (DAS), BNL's principal investigator in the CRADA.

In this technique, researchers place the sample in water that contains a corrosion inhibitor and scan its surface with a vibrating electrode to map the currents flowing over it. From these data, they can pinpoint where the inhibitors act, as well as determine their effectiveness.

"Corrosion is an electrochemical process similar to that which takes place inside a battery," Isaacs explained. "The corroding areas act as one terminal of a

**Shun-Ming Huang (left) and Hugh Isaacs, both from the Department of Applied Science, set up an experiment to map current densities with a vibrating electrode to study the corrosion of steel.**

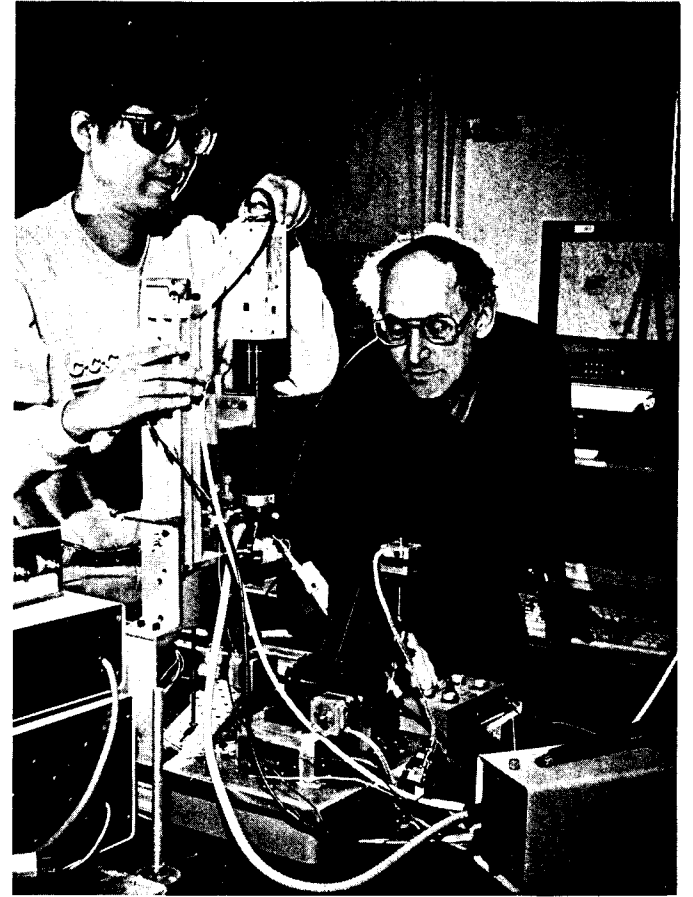


Photo by Roger Stoutenburgh

## Hofstra Honors Nicholas Samios



**Laboratory Director Nicholas Samios (center) receives an honorary Doctor of Humane Letters degree at the midyear commencement of Hofstra University.**

At the midyear commencement of Hofstra University on December 18, Laboratory Director Nicholas Samios received the Doctor of Humane Letters degree, *honoris causa*. He was cited for his outstanding "contributions to science and technology, . . . both as a physicist and as Director of the nationally renowned Brookhaven National Laboratory," and for the fact that his "continuous commitment to the betterment of Long Island, and indeed the world, through technology and science is a selfless and arduous task."

After being commended for devoting his career to high-energy particle physics, Samios was lauded for the discovery of the Omega-minus particle and the first charmed baryon. "These major discoveries have played an important role in untangling symmetries underlying the particle spectrum and ultimately leading to the formation of the Standard Model," said Hofstra President James Shuart.

For his work, Samios has also been honored with the 1980 E.O. Lawrence Memorial Award and, the same year, the New York Academy of Sciences Award in Physical and Mathematical Sciences. In 1982, he was elected to the National Academy of Sciences; in 1992, was appointed an AUI Distinguished Scientist by the Board of Trustees of Associated Universities, Inc. (AUI); and, in 1993, was a co-recipient of the W.K.H. Panofsky Prize of the American Physical Society.

Samios earned both his bachelor's degree and his Ph.D. in physics from Columbia University in 1953 and 1957, respectively. Following a stint on the

Columbia faculty, 1956-59, he joined BNL's Physics Department, where, as an undergraduate, he had been assigned as a participant in the first Summer Student program in 1952.

After serving as Leader of Physics' Omega Group, 1965-75, he was named Physics Department Chairman and served until 1981, when he became Deputy Director for High Energy and Nuclear Physics. In 1982, Samios was named Acting Laboratory Director on January 1 and Director on May 3.

This is the second honorary degree that Samios has received: the first, an honorary Doctor of Science degree, had been bestowed by Dowling College in June 1992. — Marsha Belford

## Help the Science Bowl

On Sunday, February 12, BNL will host a DOE-sponsored National Science Bowl regional competition for teams from 48 Nassau and Suffolk County high schools. The Science Bowl is a fast-paced, oral competition between two teams of four students each, who are asked questions in the areas of science, math and computing in a format similar to "Brainstormers" or "College Bowl."

BNL volunteers are needed to serve as officials — judges, moderators and timekeepers. Volunteers must attend practice sessions on January 31 and February 7 and 10, during which lunch will be served. If interested in volunteering, contact Louise Hanson, Ext. 5849 or 7709, or e-mail hanson2@bnl.gov for further information.

battery, and the remaining uncorroded areas behave as a second terminal. Current-density mapping is different from other techniques because it measures the currents as they occur in the electrolyte — the nonmetallic electric conductor inside the battery — rather than measuring them outside, in wires connecting the positive and negative terminals."

"With the help of a computer hooked up to the photoelectric cell, we can get a 'movie' of the corrosion process and monitor it continuously," said Shun-Ming Huang, DAS, who is also working on the CRADA.

Current-density mapping has several advantages over other methods of characterizing corrosion. It is rapid and does not interfere with or alter the corrosion process, and the effects of the inhibitors can be observed directly rather than from measurements after testing.

Brookhaven's participation in this CRADA is funded by the U.S. Department of Energy's (DOE) Office of Energy Research. The BNL research program that provides the foundation for this project is funded by DOE's Office of Energy Research, Basic Energy Sciences. — Diane Greenberg

## Global Change, Local Cooperation



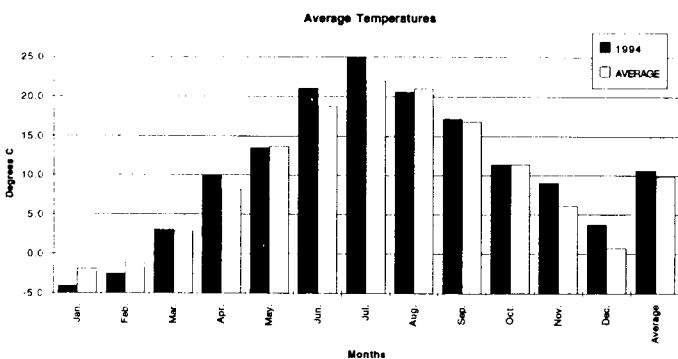
Roger Stoutenburgh

Thanks to this international group representing BNL and four developing nations — Bulgaria, the Czech Republic, Ethiopia and Nigeria — the world's output of greenhouse gases may one day be decreased. The eight visitors among them came to BNL soon after the New Year for a three-week training session in using MARKAL-MACRO, a computer software package developed by Department of Applied Science (DAS) researchers that can assist governments in devising strategies for efficient and environment-minded energy use. Now, they'll return to their home countries to put the model to use on computers donated by the U.S. Department of Energy through the Climate Change Program of the interagency Country Studies Program. Later this year, the international visitors will report on their findings using MARKAL-MACRO and help their countries develop their communications to the United Nations Framework Convention on Climate Change. Meanwhile, the MARKAL developers say they've gained new insights for refining their model from helping their visitors apply it to real-world situations. At the DAS "international classroom" are: (seated, from left) Bekuretsion Kassahun, Ethiopia; Nega Wodajo, Ethiopia; Katja Simeonova, Bulgaria; (standing, left to right) Michael Rowe, DAS; Gary Goldstein, DAS; Milos Tichy, Czech Republic; Vlastimil Spletek, Czech Republic; Fridtjof Unander, a current MARKAL-MACRO user from Norway now at Lawrence Berkeley Laboratory; Michail Denisiev, Bulgaria; John-Felix Akinbami, Nigeria; and Francis Ibitoye, Nigeria. Missing is Sam Morris, DAS.

## Weather '94 — Cold, Wet Winter; Hot, Dry Summer

The winter of 1994 was the worst on record in 20 years, but June, July and November brought the warmest monthly average temperatures ever recorded in the history of meteorological surveys conducted at BNL since 1949. Also, 1994 did not have a typical hurricane season, as no hurricanes threatened Long Island until the end of November.

"Temperatures in January and February were almost 2°C below average, at 21.1°C and 24.9°C," said Victor Cassella, a meteorologist in the Department of Applied Sciences' Oceanographic and Atmospheric Sciences Division. "In contrast, November's average temperature was 3°C above average, at a record-breaking 9.1°C." (See thermometer for conversion to Fahrenheit.)



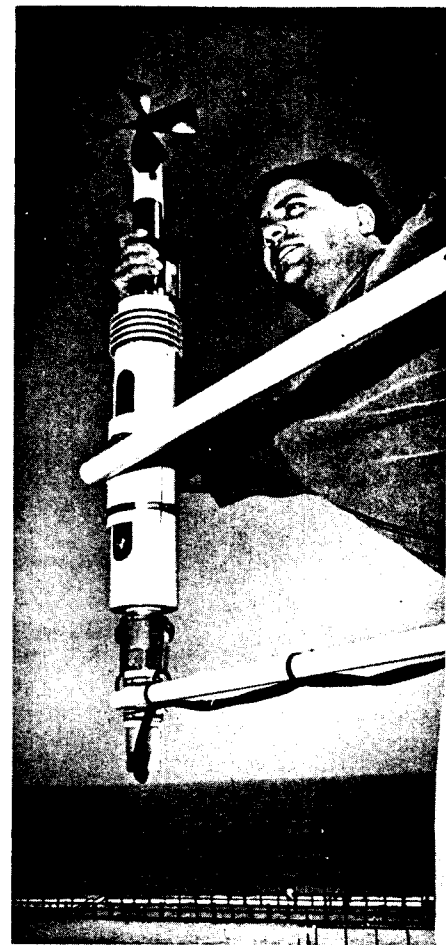
Average temperatures at BNL in 1994 were colder than usual during January and February but remained at or above average for the rest of the year.

meter for conversion to Fahrenheit.)

February had the second greatest monthly snowfall on record with 69.8 centimeters (27.5 inches) of snow, topped only in 1967 with snowfall of 82.5 cm (32.5 inches). The major snowstorms hit on February 8 and 9, bringing Long Island 22.8 cm (9 inches) of snow, and again on February 11, when a 25.4-cm (10-inch) snowfall caused the closing of many businesses, including BNL.

While the yearly average temperature was 0.8°C above normal, four new high and five new low temperatures were recorded in 1994. The thermometer hit a new high of 15.3°C on February 20, 21.7°C on March 23, 34.7°C on June 19, and 35.3°C on July 7. New lows were -17.5°C on January 20, -16.1°C on February 15, -14.4°C on March 1, -3.9°C on April 23 and -0.3°C on May 28.

Average yearly precipitation was 10.1 cm (4 inches) below normal. June and July were the driest months, with only 1.2 cm (0.5 inches) and 2.2 cm (0.9 inches) of rainfall — far short of the average of 9.4 cm (3.7 inches) and 8.1 cm (3.2 inches) for these months. Bringing rain in November was Hurricane Gordon, which, Cassella explained, "hit Cape Hatteras on November 18, but then boomeranged down south again — a very unusual move — so that the hurricane turned into a rain event by the time it hit Long Island, causing only minor beach erosion." — Diane Greenberg



Victor Cassella, at BNL's new weather station at Smith Point County Park.

## Got a Problem? The ERC Can Help!

BNL's Employee Relations Committee (ERC) is dedicated to helping non-bargaining, non-scientific employees solve work-related problems that they have not resolved with their supervisors. The eight members are appointed to three-year terms by the Laboratory Director, to whom the group is responsible.

As part of BNL's Employee Relations Program, the ERC reviews employees' complaints and attempts to hear all sides of an issue prior to making a recommendation. Information discussed with committee members is strictly confidential, and no action is pursued without the complete



Current members of the Employee Relations Committee: (from left) Patricia Fox, Department of Applied Science; Carl Jacobs, Physics Department; Mary Durham, Plant Engineering Division; committee chair William McGahern, Alternating Gradient Synchrotron Department; Grace Webster, Department of Advanced Technology (DAT); Michael Kelly, National Synchrotron Light Source (NSLS) Department; Ann Emrick, Biology Department; and Employee Relations Counselor Susan Foster, Personnel Division, ex officio. Fox, Kelly and Webster are the three new members appointed for this year, replacing outgoing members Mark Davis, Reactor Division; Dennis Klein, NSLS; and Mary McGrath, DAT, who had served as chair for the past two years. Not shown is continuing member Marie Hicks, Technical Information Division.

agreement of the employee involved.

To bring a problem to the ERC's attention call its special number, Ext. 4005, or contact a current member: Mary Durham, Bldg. 134C, Ext. 7143; Ann Emrick, Bldg. 463, Ext. 5756; Susan Foster, Bldg. 185, Ext. 2888; Patricia Fox, Bldg. 179A, Ext. 2939; Marie Hicks, Bldg. 477B, Ext. 3802; Carl Jacobs, Bldg. 510A, Ext. 2244; Michael Kelly, Bldg. 725D, Ext. 3476; William McGahern, Bldg. 911B, Ext. 2171; or Grace Webster, Bldg. 703M, Ext. 3227.

## Weight Management Group Forming

A new weight-management group will meet on site six Mondays, noon to 1 p.m., starting January 30, sponsored by the Health Promotion Program of the Occupational Medicine Clinic. The fee is \$90 per person.

Limited to 12 people, the group will be run by registered dietitian Lydia Genovese, an adjunct professor in the diet technician program at Suffolk Community College. The focus will be on losing weight and body fat without being on a diet by examining lifestyles, targeting goals, improving nutrition, acquiring healthier eating habits and encouraging exercise.

To register, first-come, first-served, contact Mary Wood, Ext. 5923, as soon as possible.

## Other Helpful Avenues

In addition to the Employee Relations Committee (ERC), employees seeking to resolve work-related problems, complaints or questions have several other avenues open to them. These include:

- **Employee Assistance Program** — Clinical psychologist Joseph Gisondo manages this program, which can assist employees with mental health problems affecting job performance, provide information on mental health problems affecting job performance, provide information on mental health issues and offer counseling for such difficulties as alcohol and drug abuse, and family, marital or personal problems. For free confidential consultation on site with either Gisondo or clinical psychologist Dianne Polowczyk, call Ext. 4567.

- **Employee Relations Counselor** — Susan Foster holds this position and is available to talk to non-bargaining unit employees. Contact her in Personnel, Bldg. 185, Ext. 2888.

- **Equal Opportunity Program** — With an issue related to the lab's equal employment opportunity effort, you should contact the Office of Equal Opportunity (OEO), Ext. 3318, or call your department or division's Equal Opportunity Representative, who serves as a liaison to OEO.

- **Rumor Hotline** — Leave a message on the Rumor Hotline, Ext. 2751 — ASK1 — to have rumors about the Lab verified. Though callers must leave their names and extensions so that someone in the Public Affairs Office can get back to them with an answer, Public Affairs will keep the employees' identities completely confidential.

- **Tune In!** — The Tune In! program, run by the Editor of the Brookhaven Bulletin, is designed to give employees a confidential means of directing questions or complaints to members of management, who then respond in writing. The bright orange and white Tune In! forms should be found in special boxes in most buildings. If your building's box is empty or if you can't find a box, call Public Affairs, Ext. 2345, for forms.

- **Women's Program Coordinator** — In this position, Victoria McLane addresses the employment concerns of women, by assisting in implementing programs that respond to their needs. Contact McLane at Ext. 5099, Bldg. 197.

## BNL Installs Weather Station At Smith Point

About 12 meters above sea level on a ranger station rooftop, meteorologist Victor Cassella, Department of Applied Science, installed a new weather station in September at Smith Point County Park, about 16 kilometers south of BNL, in Shirley.

The instrument continuously monitors barometric pressure, relative humidity, temperature, and wind speed and direction as an aid in emergency planning for the Laboratory and Suffolk County.

The information gained from this new instrument will supplement readings taken at Brookhaven's weather station at the northwest corner of the Lab site, near Bldg. 51.

Both DAS meteorologists and personnel from the Suffolk County Emergency Response Center will be able to access data from the new station by computer. Local meteorological conditions are important for determining an emergency plan in response to a chemical or nuclear accident or a weather emergency that might affect Lab personnel or the general public.

"Eventually, we plan to set up these weather stations at county parks and U.S. Coast Guard stations all around Long Island," said Cassella. "Also, we hope to install a telephone line at Brookhaven Lab so that the general public can call to get up-to-the-minute weather information. Furthermore, local television, radio and print media would have free access to weather conditions."

Cassella acknowledged the help of DAS's Peter Minnett and Michael Reynolds, who coordinated the project, and Scott Smith, DAS, who helped to install the weather station.

— Diane Greenberg

## Amateur Radio

The Amateur Radio Club will meet on Thursday, January 26, in Room D, Berkner Hall. All Lab employees, guests and licensed amateur-radio operators are invited to attend. For further information, contact Chris Neuberger, Ext. 4160, or Nick Franco, Ext. 5467.

## Outreach Workshop How to Solve Problems Creatively

A problem involves doubt, uncertainty and difficulty because its solution is not self-evident — or because two or more people cannot agree on its solution.

In the next Outreach workshop sponsored by the Employee Assistance Program (EAP) of the Occupational Medicine Clinic, "Creative Problem Solving: Getting Unstuck" will be discussed by clinical psychologist Robert Carrere. The workshop will be given on Tuesday, January 24, from noon to 1 p.m. in Berkner Hall. All are invited, and an audiotape will be available afterwards in the Research Library.

According to Carrere, there is a process for solving problems creatively, as well as one for being stuck without

a solution. In helping individuals and groups learn to solve problems more creatively, Carrere invites participants to bring significant problems to the workshop to be worked on.

Robert Carrere, Ph.D., has been in private practice since 1987 and is an organizational consultant, offering workshops in human relations, organizational development and group process.

To register for this workshop, return the completed bottom portion of the Outreach flyer recently sent to all employees to EAP Staff Psychologist Dianne Polowczyk, Bldg. 490, by Monday, January 23. For more information about EAP and its Outreach workshop series, call Ext. 4567.



Roger Stoutenburgh

## Goldhaber Prize Presented

Joining Fang Shu (second from right), as she received the Gertrude S. Goldhaber Prize on December 8, are Vinita Ghosh (left) and Louise Hanson (right), members of the Brookhaven Women in Science committee that oversaw Shu's selection, and AUI Distinguished Scientist emeritus Maurice Goldhaber. This is the second time that the \$500 award has been given to a woman graduate student in physics at the State University of New York at Stony Brook in recognition of her substantial promise and accomplishment. After completing her undergraduate work at the University of Science and Technology of China in Hefei in 1986, Shu attended the Institute of Physics in the Chinese Academy of Science in Beijing before coming to Stony Brook in 1988 to pursue her Ph.D. in physics. In 1990, she began working in BNL's Biology Department as a guest junior research associate, doing structural biology research to study the structure of solvent molecules bound to per-deuterated recombinant sperm whale myoglobin. Having received her Ph.D. at the end of 1994, Shu has now begun her postdoctoral experience, joining the Biology staff as a research associate on January 3. Nuclear physicist Gertrude Scharff-Goldhaber, who was the first woman Ph.D. physicist appointed to the BNL staff and who has had a long-time interest in the education of young women physicists, could not attend the ceremony, but her husband Maurice Goldhaber told Shu, "She wishes you good luck and success in your career."

## Medical Plan Enrollment Open

Until February 10, eligible BNL employees working 20 or more hours a week may either join a Health Maintenance Organization (HMO), change to the AUI Medical Insurance Plan administered by Connecticut General Life Insurance Company (CIGNA), switch from one HMO to another, or opt to keep their present coverage. Coverage changes will become effective March 1.

HMO choices are: ChoiceCare, Health Insurance Plan of Greater New York (HIP), or U.S. Healthcare. Since Blue Cross/Blue Shield will discontinue its Healthnet plan effective March 1, employees currently enrolled in Healthnet must now select an alternative plan.

Under an HMO, employees receive medical services from physicians and at health-care facilities within that

HMO's provider network. There are no claim forms to submit, and most services are covered, including physician visits, well-baby care, surgery, x-rays, hospitalization and diagnostic tests. Some HMOs require a small co-payment at the time services are rendered.

Associated Universities, Inc. (AUI), will only subsidize the cost of an HMO plan by paying up to the cost AUI currently pays for the AUI Medical Insurance Plan. At present, enrollment in ChoiceCare, HIP or U.S. Healthcare does not require an additional employee premium.

Under the AUI Medical Plan, employees choose their physicians and health-care facilities. To receive reimbursement for covered medical expenses, employees must submit claim forms to CIGNA.

Whether enrolled in the AUI plan or an HMO, employees hired on or after January 1, 1992, will continue to be required to pay their contribution to their medical insurance premiums.

To help employees decide which medical plan is right for them, representatives from the three HMOs will be in Berkner Hall from 11 a.m. to 2 p.m. on three consecutive Wednesdays, January 25, and February 1 and 8. HMO literature will be available, including lists of participating physicians and facilities. Questions about the AUI Medical Insurance Plan will be answered by Muriel Pfeiffer, Bldg. 185, Ext. 2877.

Other than those who are currently enrolled in Healthnet who now must switch, employees who do not want to change their coverage at this time do not have to do anything for it to continue.

For more information and forms to change medical coverage, contact Muriel Pfeiffer, Ext. 2877. Change forms must be filed with the Personnel Division, Bldg. 185, by Friday, February 10, for coverage effective March 1, 1995, through February 29, 1996.

## Healthline & Outreach Schedule

In addition to next week's talk, 14 lunchtime presentations on health and mental-health topics have been planned this winter and spring, for the Healthline lecture series of the Health Promotion Program and the Outreach workshop series of the Employee Assistance Program.

Under the auspices of the Occupational Medicine Clinic, the Healthline series presents talks on topics related to healthy living, while Outreach offers discussions of psychological issues and social problems.

See future issues of the Bulletin for details on each presentation, or, for general information, call Ext. 5923 about Healthline lectures, or Ext. 4567 about the Outreach workshops.

Date	Series & Topic	Speaker
Feb. 14	<b>Healthline:</b> Money Matters in Catastrophic Illness	George Roach, Esq.
Feb. 28	<b>Healthline:</b> Body-Composition Analysis	Linda Folken, R.D.
Mar. 7	<b>Outreach:</b> Stress Management for Women	Susan Dermit, Ph.D.
Mar. 14	<b>Outreach:</b> Domestic Violence	Jane Schmidt
Mar. 21	<b>Healthline:</b> Health Research Involving Long Island Women	Dorothy Lane, M.D.
Mar. 28	<b>Outreach:</b> Mothers and Daughters	Gail Malloy, Ph.D.
Mar. 29, Apr. 5 & 12	<b>Outreach &amp; Healthline:</b> Menopause	to be announced
Apr. 4	<b>Healthline:</b> Arthritis	Ronald Bennett, M.D.
Apr. 11	<b>Healthline:</b> Arthritis Self-Help	Shirley Haubner
May 17	<b>Healthline:</b> Genetics vs. Environmental Causes of Disease	Victor Penchaszadeh, M.D.
May 23	<b>Outreach:</b> Fathers and Sons	Don-David Lusteran, Ph.D.
Jun. 6	<b>Healthline:</b> Coronary Artery Disease	Steven Horowitz, M.D.
Jun. 13	<b>Outreach:</b> Male vs. Female Reaction to Stress	Barbara Brown, Ph.D.
Jun. 20	<b>Outreach:</b> Retirement Blues or Bliss	Ann Kurz, Ph.D.

## BERA Going to Easter Show at Radio City

BERA is organizing a bus trip to New York City on Saturday, April 8, to see the 1995 Easter Show at Radio City Music Hall.

For the per-person price of \$85, the day's itinerary will include:

- Round-trip bus transportation leaving from the Brookhaven Center at 9:45 a.m. and returning by 8 p.m.;
- Orchestra seats for the noon Easter Show at Radio City Music Hall;
- Full-course lunch at 2 p.m. at La Maganette in the theater district;
- All taxes and tips.
- Approximately two hours along Fifth Avenue for shopping, browsing and sightseeing at such spots as St. Patrick's Cathedral, Trump Tower and FAO Schwarz.

Make reservations at the BERA

Sales Office, Berkner Hall, weekdays from 9 a.m. to 1:30 p.m. A \$40 deposit is required. For more information or a menu, call Andrea Dehler, Ext. 3347, or M. Kay Dellimore, Ext. 2873.

## Parallel Processing at Compute Farm

Computer users: Here's your chance to explore the potential of a quarter-of-a-million-dollar, state-of-the-art IBM computer for scientific and technical applications — the 9076 Scalable POWERparallel System, or SP2.

The SP2 is unique as an entry-level parallel processing machine that can handle serial and parallel applications simultaneously from a single workstation.

It is the latest arrival at BNL's Compute Farm, where the Computing & Communications Division (CCD) runs a group of high-performance machines that it owns or that have been loaned by manufacturers for anyone at BNL to use free of charge.

The SP2 connects to input-output devices and to networks of workstations, interfaces with Ethernet, SCSI, FDDI and ATM, and accepts all RS6000 programs. Its scalable architecture is rated at 260 megaflops and includes a high-performance communication

switch, suited for work ranging from structural analysis and seismic modeling to circuit simulation and molecular modeling.

Documentation on how to use the Compute Farm is on the World Wide Web CCD home page under "batch." All current Compute Farm users will be assigned an SP2 account. Other interested users should ask for an account from Andrew Como, Ext. 7014, e-mail como@bnl.gov, or Edward McFadden, Ext. 4188, e-mail emc@bnl.gov.

## IBEW Meeting

Local 2230, IBEW, will hold its regular monthly meeting on Monday, January 23, at 6 p.m. in the Knights of Columbus Hall, Railroad Avenue, Patchogue. The agenda includes regular business, committee reports and the president's report.

## BROOKHAVEN BULLETIN

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## Let's Dance

Two beginners' series of dance classes will start next Wednesday, January 25, and continue for seven more weeks: From 5:15 to 6:30 p.m., learn quickstep and Viennese waltz; and/or from 6:30 to 7:45 p.m., samba and six-count swing. The cost for each series is \$20 per person. To register, come to the North Ballroom, Brookhaven Center on the first night.

## Country/Western Dance

To keep the cost of an intermediate line and couples country-western dance class at \$50 per person for ten weeks, 40 people must sign up. So, this is the last call for those interested in attending such a class on Wednesdays, from 5:30 to 7 p.m. Instructors Wayne and Patty Coursen are well-known on Long Island and have been instructing for several years. Call Lois Marascia, Ext. 3315, no later than Wednesday, January 25, to sign up.

## LabVIEW Training

CCD has scheduled two 5-day LabVIEW classes, the first from February 27 to March 3, and the second from April 10 to 14. Each class will provide three days of basic and two days of advanced training, while meeting in the PC Training Room, Bldg. 515, Computing & Communications Division. To register for a class send an ILR for \$1,300 to Marcia Swiss, Bldg. 515, by February 3, indicating the desired class and dates. For more information, call Pam Mansfield, Ext. 7286, or e-mail pam1@bnl.gov.

## Softball Meeting

There will be a softball captains' meeting on Wednesday, February 1, at noon, in Room B of Berkner Hall.

## Bowling

### Red & Green League

R. Eggert 236/234/218/688 scratch series, J. Goode 235/233/217/685 scratch, E. Larsen 224/214/202/640 scratch, R. Larsen 223/218/633 scratch, B. Giuliano 234/213/624 scratch, K. Koebel 258/628 scratch, J. LaBounty 216/211, N. Scala 257, E. Sperry IV 246, H. Arnesen 236, R. Raynis 225, R. Mulderig, Sr. 222, M. Palumbo 216, A. Warkentien 214, R. Mulderig Jr. 205, F. Wahlert 204, E. Sperry III 203.

Winner of the first half is *The Force*.

### Purple & White League

E. Sperry IV 234/212/604 scratch series, T. Farmer 222, R. Picinich 201/187, G. Munoz 201, E. Sperry III 200/189, S. Logan 200, M. Meier 196/182, K. Conkling 199, P. Wynkoop 198, J. Butler 196, K. Batchelor 187, M. Haller 186, M. DiMaiuta 186, N. Besemer 184, M. Reynolds 181, S. Smith 176, M.G. Meier 171.

Winner of the first half is *Terminators*.

## Cafeteria Menu

### Monday, January 23

Soup: Beef barley .90/1.20  
A la Carte: Kielbasa w/potato salad 3.85  
Fitness: Vegetarian lasagna 3.50  
Deli: Pastrami 3.20  
Grill: Philly cheesesteak 3.30

### Tuesday, January 24

Soup: Chicken noodle .90/1.20  
A la Carte: Sausage & pepper calzone 3.50  
Fitness: Macaroni & cheese 3.65  
Deli: Virginia ham 3.20  
Grill: Denver omelet 3.30

### Wednesday, January 25

Soup: Sausage & pasta minestrone .90/1.20  
A la Carte: BBQ spare ribs 4.25  
Fitness: Spinach & feta quiche 3.65  
Deli: Roast beef 3.20  
Grill: Meatball hero 3.30

### Thursday, January 26

Soup: Senate bean .90/1.20  
A la Carte: Bonnie's chicken 3.85  
Fitness: Pork chops 3.85  
Deli: Corned beef 3.20  
Grill: Ham & cheese 3.30

### Friday, January 27

Soup: New England clam chowder .90/1.20  
Display Cooking: Grilled Caesar chicken 4.65  
Fitness: Pasta primavera 3.65  
Deli: Roast turkey 3.20  
Grill: Tuna melt 3.30

See the Superbowl at the Brookhaven Center Sunday, January 29, at 4 p.m. For \$12.95 per person; enjoy:

6-foot-heroes, Italian or American; chicken wings; baked ziti; hot dogs w/choice of toppings; snacks; unlimited beverages.

## Send a Love Note to Your Valentine

Is there a special message you'd like to send to your valentine? Are you looking for a valentine? You can have your Valentine's Day message printed in the Brookhaven Bulletin on February 10.

Send your 15-to-20 word "love note" to the Bulletin, Bldg. 134, by Friday, February 3. Use a Sales & Notices Bulletin classified ad form, but mark it "Valentine's Day." You must sign your name and include your life number and extension, but your name will not be printed unless it is clearly part of the message.

## Arrivals & Departures

### Arrivals

Michael G. Hauptmann ..... Dir. Off.  
Slobodan Jovanovic ..... Physics  
Michael M. Lowry ..... Physics

### Departures

This list includes all employees who have terminated from the Lab, including retirees:  
Glenn A. Jennings ..... Dir. Off.  
Irving Montanez ..... AGS  
Edward D. Platner ..... Physics  
Evangelos Thomatos ..... AGS  
Joseph R. Yelk ..... Physics

## Classified Advertisements

### Placement Notices

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

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

Except when operational needs require otherwise, positions will be open for one week after publication. For more information, contact the Employment Manager, Ext. 2882, or call the JOBLINE, Ext. 7744 (282-7744), for a complete listing of all openings.

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

**CHEMICAL ENGINEER** - With several years' experience in process/plant design, cost-efficiency analysis, systems construction and analysis, and projections to operating plants; to participate in the assessment of existing processes associated with newly developed biochemica technologies for the processing of fossil fuels and geothermal materials. Contact: Eugene Premuzic, Department of Applied Science.

**OPEN RECRUITMENT** - Opportunities for Laboratory employees and outside candidates.

DD 0545. **TECHNICAL POSITION** - (term appointment) Requires a BS or the equivalent experience acquired through technical training, and experience in both electronics and rf technology. Requires the ability to work from electronic schematics, verbal instructions and sketches. Extensive experience is required in the layout and assembly of rf circuits and electronic and rf test equipment, including vector network analyzers. The ability to design simple signal-processing circuits is desirable. Responsibilities will include constructing, troubleshooting and maintaining rf amplifiers, analog electronic circuits and low-level rf circuits in the 10-200 MHz range. (reposting) RHIC Project.

### Motor Vehicles & Supplies

93 HYUNDAI - 2-dr. h/b, a/t, sunroof, cass., pinstriping, orig. owner, 32k mi., \$6,250 neg. Michael, Ext. 5927.

92 TOYOTA 4 RUNNER SR5 4x4 - all power options, sunroof, cruise, 6 speaker stereo, 14k mi., showroom cond., \$19,500 firm. 728-0273 eves.

91 MERCURY CAPRI - convertible, red, loaded, 55k mi., m/t, 60/5 yr. warr., \$7,600 Ed, Ext. 5360.

90 NISSAN 240 SX - h/b, a/t, ac, all power, sunroof, new tires, excel. cond., \$8,300. Tony, 329-1277.

89 HONDA ACCORD LXI - sunroof, gar., 80k mi., red, 4-dr., a/t, excel. cond., neg. Carol, Ext. 4398.

89 NISSAN 240XE - coupe, a/t, ac, v.g. cond., \$6,000. Cleve, Ext. 7234.

88 MERCURY TRACER - a/t, ac, cruise, cass., one owner, \$2,295. Ext. 4424 or 878-0863.

88 NISSAN SENTRA - m/t, ac, mint in & out, \$2,300; '84 Volvo wagon, diesel, m/t, ac, v.g. cond., best offer over \$2,000. Terry, 298-1932.

87 ISUZU TROOPER II 4x4 - 135k mi., runs well, good cond., asking \$3,000. John, Ext. 7313 or 395-5922 after 5 p.m.

87 KAWASAKI - 125cc, gar., new tires, helmet, extras, fast, excel. cond., \$1,000 or trade. Ext. 3696.

86 BUICK REGAL LTD - 2-dr. sedan, a/t, p/pkg., am/fm stereo, new tires, brakes, exhaust, gar., high mi., \$2,850. Leo, Ext. 2952 or 289-1855.

86 OLDSMOBILE DELTA 88 ROYALE - loaded, full power, clean, well maint., 91k orig. mi., runs well, \$2,800 neg. Mark, Ext. 2494.

86 TOYOTA COROLLA - new brakes, tune-up, oil change, Excell pull-out radio, good tires, a/t, ac, \$1,600. Dick, Ext. 4640.

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



85 BUICK CENTURY - 76k mi., clean in & out, new am/fm radio, v.g. cond. Ext. 1201.

85 PONTIAC BONNEVILLE - p/s, p/b, tilt, needs rear main seal, new trans., radiator, good cond., reliable. 744-9368.

85 SUBARU - m/t, 2-dr. h/b, runs but needs work, \$500 neg. Shawn or Dave, Ext. 1024.

85 TOYOTA CAMRY - new tires, brakes, shocks, runs well, mint cond. in & out, \$2,875 neg. Dave, 395-3484.

84 BUICK LESABRE - custom, 4-dr., orig. owner, good cond., \$1,150. Ext. 2679 or 472-6922.

83 AUDI 5000S - runs but needs engine work, \$50. Hung, Ext. 5508/1043.

79 GMC 3500 PICKUP - 350V, 4-spd., reading, walk-in utility body, pipe rack, some rust, good cond., \$1,000. Jim, 727-3469.

77 CHRYSLER NEW YORKER - V-8, new parts, good running cond., \$375. 821-4983.

74 MGB - convertible, used on road through 1992, new top w/zippered window, ran well, \$1,500 neg. Marcia, Ext. 7796.

70 DODGE CHALLENGER RT - 383 Magnum, 335-h.p., 4-spd., ac, am/fm, Thumbwheel Magum 500 rims, totally restored, ask. \$13,500. Bob H., Ext. 4446.

69 FLEETWOOD CADILLAC - 64k orig. mi., Grandpa's car. excel. cond., collectors. Charlaide, 924-4258.

PARTING OUT '78 FORD F150 4x4 - front nose, 351M motor, new rear, hood, door, transfer case, steering box. Wayne, Ext. 2964.

TIRES - 1, P215/70R14, Firestone, excel., \$25; 2, P225/75R14, Goodyear, brand-new, orig. \$175, now \$40 ea. 698-9274.

BUMPERS - new, front & rear, '95 Chevy van, \$100 ea. firm; trailer hitches: Class III, Class I, \$20 ea.; radio w/ speakers, \$40. Don, Ext. 7237 or 744-2921 after 5:30 p.m.

MOTORCYCLE HELMET - w/face shield, like new, size medium, \$20. Victor, Ext. 2395.

WHEELS - 2, for Chrysler Aries or similar, w/tires, P175/85R13, good for spares. Bill, Ext. 3698.

### Boats & Marine Supplies

23' SAILBOAT - fg, fixed keel, sleeps 4, mooring dinghy, Jackstands, 6-h.p. motor, sails in excel. cond., new windows, \$1,800. Mike, 698-3967.

21 1/2' PURSUIT - 1991, deep V cuddy, 150-h.p. Yamaha, 140 hrs., o/b, loaded, '93 E-Z trailer, full canvas, mint cond., \$18,000. Lloyd, 587-7876.

10'2" ZODIAC - floorboards, oars, inflatable, keel, excel. cond., \$350. Ext. 2799.

TRAILER - for 12'-14' boat, dinghy, duck boat, etc., \$125. Gary, Ext. 3751.

### Furnishings & Appliances

BOOKCASE - mahogany, \$35; heater, \$30; kerosene heater, \$30; skis, \$25; ski boots, \$25; fish tank, \$10. Kathy, 744-2203.

CHAIRS - Ethan Allen, solid cherry bow-back, 4 side, orig. \$199/ea., now \$125/ea.; 2 arm, orig. \$249/ea., now \$175/ea. Eric, Ext. 5875.

CHINA CLOSET - glass-doors, \$40; rattan etagere, 6x6, w/glass shelves, \$200. 325-1907.

CURIO CABINET - walnut, excel. cond., \$125; changing table, white, \$25. Ann, Ext. 7611.

DINING ROOM SET - glass-top table w/black base, 4 black upholstered chairs, excel. cond., \$350; humidifier, Presto, \$35. Carter, Ext. 7599 or 924-5923.

DINING ROOM SET - 4 chairs, 2 armchairs, table, hutch, fruitwood, seat covers, \$1,400 neg. John, Ext. 2021.

DRAFTING TABLE - large metal, w/tilt top, 2 drawers, \$50. Cindy, Ext. 3461 or 874-3652.

HEADBOARD - full-size, w/matching mirror, 34"x54", fruitwood, \$75/both. Lou Pergola, Ext. 3499.

RANGE - Hot Point, 1 1/2 years old, elec., \$250; twin bed foundation, \$20; track lighting, 12', \$40, 9', \$25. John, 821-4280.

SOFA & SOFA BED - excel. cond., practically new. Ext. 4626 or 4454 or 924-6756.

SOFA BED - recliner chair, 2 leather swivel chairs, coffee table, end table, student's desk & chair; living room sofa, w/2 chairs, excel. cond. Shirley, 689-8665.

BASSINET - white w/yellow gingham cover, mattress, like new, \$25. Anne, 361-6835.

BEDROOM SET - girl's, white, canopy bed, dresser, w/mirror, desk, end table, twin, 7 yrs. old, good cond., \$350. Marie, Ext. 4207.

BEDROOM - chest, 2 nightstands, headboard, mirror, good cond., \$250 or best offer. Zal, Ext. 7598 or 395-4220.

CONVECTION OVEN - Sharp Carousel II, brand-new, all racks & pans, ask. \$150. Charlane, 924-4258.

COUCH - removable cushions, pine frame & arm, seats 3, \$50. Pat, 744-8512.

CRIB - & changing table, all wood. \$150 or best offer. Tom, Ext. 7287 or 744-4535.

FUTON - full frame, mattress, cover, orig. \$600, will sell for \$200. Janet, Ext. 2345 or 929-3910.

HOOSIER - antique, solid oak w/pulldown enamel surface for baking, excel., \$650. 399-6367 eves.

REFRIGERATOR - 21 sq. ft. w/freezer, \$100. Tom, Ext. 7287 or 744-4535.

SOFA BED - Sealy, full size, 6" innerspring mattress, beige, Scotchguarded, \$425 or best offer. Denise, Ext. 5873.

TABLES - end, coffee, oval, dark walnut, like new, \$100; wrought-iron patio set, 4 swivel chairs, table w/ Formica top, indoor, \$200. Marty, Ext. 2214.

WASHER - GE, family size, extra-large capacity, 6-cycle washer, runs well, \$120. Ext. 5076 or 744-4615.

WATER BED - queen, semi-waveless, 4-drawer, pedestal, excel. cond., \$200 neg. Ext. 4028.

### Tools, House & Garden

FIREWOOD - seasoned, hardwood, split, delivered, \$115/cord, \$60/half cord. Glenn, 924-2035.

HOT WATER HEATER - 1/2", 5k Btu, in-wall, Beacon/Morris, w/fan, new, \$110; nylon rope, 1,200', 3/8", new, on spool, \$150. Dennis, Ext. 5306.

COAL-BURNING STOVE - Surdiac, coal included, \$200. Carter, Ext. 7599 or 924-5423.

WAXING MACHINE - 20", General Line, professional, like new, \$550 or best offer. Mark, 924-0960.

### Sports, Hobbies & Pets

AQUARIUM - 55 gal., saltwater, wood stand, UV sterilizer, dual light strip, Otto 2000 power head, wet/dry alter, extras, \$475. 269-6527.

EXERCISE EQUIPMENT - DP Gympac 1500, 110-lb. set w/bench, \$250; Sears ergometer cycle, weighted wheel, \$75. 286-1024.

BENCH PRESS - TDS Titan Olympic, flat 3" square tubing, heavy-duty, \$150. John, 696-5490.

DRUMS - Samson, 5-pc., new Pearl bass drum pedal, 16" Sabian crash, 14" Paiste hi hats/stand, \$295; drum, Pearl snare, \$45. Bill, 878-4356.

EXERCISE BIKE - stationary, w/moving handlebars, odometer, good cond., \$40. 924-4258.

ICE SKATES - figure, men's size 8 1/2. \$10. 929-4326.

SKIS - 2 sets, with bindings, poles, Atomic 195, \$95; Head 180, \$85; 3 pairs poles, \$15/ea. Ralph, Ext. 4446, beeper 0514.

### Audio, Video & Computer

COMPUTER - 486DX50, EISA board, 20MB RAM, 210MB HD, 15" mon., tower case, excel., \$1,400. Ext. 2610 or 924-5272.

COMPUTER - IBM PC convertible, model 5140, LCD display, ac adapter, two 3 1/2" disk drives, 512kB memory, carry case, \$50. Ken, Ext. 7311.

COMPUTER - C-128 Commodore, 1571 drive, col. mon., all software. 744-6962 eves.

COMPUTER HUTCH - by Saunder Woodwork, slide-out keyboard tray, book shelf, 1 yr. old, you pick up, \$50. Charlie, Ext. 5046.

VCR - Sony SL5600 Betamax, \$20. Ext. 4272.

COMPUTERS - Apple Lisa, MacPlus, \$300; Mac 512K, \$250; Imagewriter printer, \$150; 400k ext. disk drive, \$50; 300 baud modem, \$15. Don, 821-3320.

COMPUTER - 386SX, 16 MHz, 1 meg RAM, 3.5" floppy, 80 MB HD, mono mon., card; tape backup, jumbo, 250, w/cables, \$80 neg. Henry, Ext. 7749.

MOTHERBOARD - 386 SX16, w/80387 math coprocessor, 2 meg RAM, 60 meg RLL HD, controller, make offer. Ted, Ext. 4589.

SOFTWARE - Lotus AMI-PRO Version 3.01 word processor for Windows, w/all manuals & registration card, \$50. Bob, Ext. 4551.

SPEAKERS - JBL-XPL200, active crossover, bi-amp, MTX stands, excel. cond., low hrs., orig. \$3,900, asking \$1,950. Ken, Ext. 2935.

VCR - JVC, 4-head, HQ, excel. cond., \$135; stereo, dual cass., turntable, tuner, speakers, \$120. 475-8242.

### Miscellaneous

BOOTS - men's, Western leather, 10 1/2 D, like new, \$50. Pat, 744-8512.

BREAD OVEN - Welbuit, small, like new, w/recipe books, orig. \$129, sell for \$50. Pam, Ext. 4070.

COLLECTIBLE - authentic copy of 1919 contract to sell Babe Ruth to the Yankees, make offer. O. Booker, Ext. 3082 or 727-5912.

RING - diamond engagement, pear shape, 20 side stones, almost 1 ct. total, appraised at \$2,800, asking \$1,500 neg. John, Ext. 7313 or 395-5922 after 5 p.m.

RING - diamond engagement, 0.93 ct. w/2 tapered diamond baguettes, appraised at \$5,000, asking \$2,700. Mike, Ext. 4293.

TICKETS - Met Opera, *La Traviata*, row M orchestra center, Sat. matinee, 2/25. Ext. 3922 or 878-2604.

TYPEWRITER - electronic, AT&T model 6200, 5 yrs. old, \$30 or best offer. 653-8251.

### Free

CAT - affectionate, playful, calico female, spayed, shots, needs loving home, very clean, excel. litter habits. Alice, Ext. 5203.

FIREWOOD - backhoe available to help you load. Frank, Ext. 4284.

### Car Pools

LIE EXIT 36 - fourth needed for car pool. John, Ext. 5181.

ROCKY POINT/SOUND BEACH - interested in forming carpool in this area. Henry, Ext. 7749.

### Wanted

BRIDGE PLAYERS - for after hours, on-site game. Morris Strongson, Ext. 4192.

COMPANION - single female seeks male or female for attending BNL events and socializing. Write: POB 8, Upton, NY 11973.

DRAWING TABLE - all wood, Anco, 38"x48" w/parallel edge, if possible. Frank, Ext. 3120.

ENGRAVER'S BALL VISE - lg. or small. Ted, Ext. 4589.

HOUSEMATE - to share lg. 3-bdrm. house, 2 baths, 5 min. to Lab, full kit., d/r, l/r, beach rights, TJ, 744-3308.

MEDICAL LIFT CHAIR - Joe, Ext. 2898.

MOTORCYCLE - 1985+ Kawasaki KZ 750 cc or Suzuki GXSR 750 cc, reasonable. Dennis, Ext. 3696.

NANNY - mature, loving, for sisters ages 2 & 5, M-F, 28-35 hr./wk, in our Rocky Pt. home, nonsmoker w/clean drivers license. 821-4083 after 5 p.m.