BROOKHAVEN BULLETIN
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BROOKHAVEN NATIONAL LABORATORY

Nobel Laureates Return to Brookhaven

Last week, the 1988 recipients of the Nobel Prize in Physics — Leon Lederman, Melvin Schwartz and Jack Steinberger — returned to Brookhaven, home of the Alternating Gradient Synchrotron (AGS), the 33-billion-electron-volt accelerator with which they conducted their Nobel-winning experiment in 1962. Using the first neutrino beam ever employed for high energy physics, they discovered the muon-neutrino.

The Nobel laureates returned as guests of honor at a two-day event organized jointly by BNL Director Nicholas Samios and Nobel laureate T.D. Lee, Columbia University, where Lederman, Schwartz and Steinberger were professors at the time of their discovery. Today, Lederman is Director of Fermi National Accelerator Laboratory; Schwartz is president of his own computer communications firm, Digital Pathways, Inc.; and Steinberger is a senior physicist at CERN, the European particle physics laboratory in Switzerland.

Tributes on the Occasion

At a banquet held in their honor on Thursday evening, February 16, Samios said, "We, the friends and colleagues of Leon, Mel and Jack, are gathered here to share the joy of their receipt of the 1988 Nobel Prize in Physics. This long overdue award is the third such prize bestowed upon experiments performed at the AGS. It attests to BNL being truly a user laboratory, for each of these noteworthy efforts have been conducted by university groups . . . the J by Ting of MIT, CP violation by Cronin and Fitch, then of Princeton, and now the two neutrinos by Lederman, Schwartz and Steinberger when they were at Columbia. BNL can also claim being the home of the Nobel Prize-winning theoretical work on parity violation by Lee and Yang.

"Three of the Nobel awards also attest to the productivity of the AGS," he continued. "This pioneering, high-intensity machine, which came into existence with the discovery of a new idea, that of strong focusing, is being invigorated by the addition of a booster. We are all looking forward to the natural extension and augmentation of this accelerator complex with the contruction of RHIC, the Relativistic Heavy Ion Collidor, which again will pioneer a new field of physics."

Before a Friday morning lecture in honor of the new Nobel laureates, T.D. Lee, whose own 1957 prize, shared with C.N. Yang, stemmed from ideas that evolved while they were visiting scientists at BNL in the summer of 1956, observed, "The award of the Nobel Prize to this discovery of two neutrinos after 26 years is a clear tribute to its true greatness. . . . It's a great pleasure for me to join with all of you to pay homage to one great laboratory — Brookhaven, to two elusive particles — the electron neutrino and the mu neutrino, and to three superb physicists."

Some Banquet Remarks

At Thursday's banquet, Robert Hughes, President of Associated Universities, Inc., (AUI) shared some "interesting tidbits in the records of the minutes of the Board of Trustees of AUI about that time. . . .[March 1962] 'Dr. [Maurice] Goldhaber [then BNL Director] reported that the neutrino experiment being conducted at the AGS in conjunction with a group

(Continued on page 2)

Roger Stoutenburgh

More than 26 years after the experiment that prompted the gathering shown at right, the team that worked on the Nobel Prize-winning 1962 experiment at the AGS recreated the scene at BNL: (from left) Jack Steinberger, Dino Goulianos, Jean-Marc Gaillard, Nari Mistry, Gordon Danby, Warner Hayes, Leon Lederman and Mel Schwartz. All were from Columbia except Danby, who was with BNL, as he and Hayes are now.

ERICA Launched With CLASS

Northeasters over the North Atlantic are as unpredictable as they are dangerous.

One northeaster in 1982, for example, toppled a giant oil rig off Newfoundland, killing 84 workers. An earlier storm in 1978 damaged the superstructure of the Queen Elizabeth II luxury ocean liner.

To understand the fundamental physical processes occurring in the atmosphere during northeasters over the North Atlantic from Washington, D.C., to Halifax, the U.S. Office of Naval Research has launched ERICA — Experiment on Rapidly Intensifying Cyclones over the Atlantic.

Roger Stoutenburgh

Jon Haas waves goodbye to an ERICA weather balloon as it is launched by (inside trailer, from left) Bob Brown and Larry Kleinman.

The purpose of the experiment is to produce better storm-forecasting techniques than exist at present. ERICA's field operations are being directed from Maryland and Nova Scotia; the Naval Air Station in Brunswick, Maine, is the base for the aircraft used in this experiment.

As one of three ERICA sounding sites on land along the U.S. coast, BNL's Atmospheric Sciences Division (ASD) of the Department of Applied Science has been launching helium-filled weather balloons before such storms since the first of December.

Until March 1, when storm warnings are received via computer or telephone, ASD sends up balloons every three hours over 36 hours. The large, white rubber balloons emerge through a hatch in the roof of a small, white trailer parked aside Bldg. 51.

The 12-foot trailer houses a Cross-chain Loran Atmospheric Sounding System (CLASS) station; it is owned by the National Center for Atmospheric Research and is one of eight CLASS stations being used in ERICA. It is the same CLASS station that was used during the acid-rain field experiment in Illinois last July, in which ASD participated.

As each balloon heads for the sky, dangling from 50 feet of cord attached to its tail is a small container, resembling a milk carton, that holds a lightweight radiosonde. This balloon-borne, battery-operated instrument simultaneously measures and transmits back to the CLASS station meteorological data: pressure, temperature and humidity. As well, the radiosonde picks up Loran C signals, which are low-frequency radio waves normally used for navigation. Using the Loran signals to find the balloon's position and its change with time, the wind field and balloon's altitude can be determined.

As a balloon gains altitude and the atmospheric pressure decreases, the balloon gets bigger and bigger until it pops around 60-70,000 feet, after about an hour-long flight. The CLASS station, however, records the balloon's data on computer until only 54,000 feet. After the data is processed, it is shared with other ERICA experimenters via a computer bulletin board.

Coordinated by Bob Brown, the ASD staffers launching the balloons and collecting the data include Carmen Benkowitz, Larry Kleinman, Marty Leach, John McNeil, Paul Michael and Joyce Tichler. They are assisted by student Jon Haas, a senior physics major from the University of Arizona, working on atmospheric modeling in ASD under the Science & Engineering Research Semester program, run by BNL's Office of Educational Programs and sponsored by the Department of Energy. — Marsha Belford

At NSLS: Last Two Insertion Devices

With the installation of the first superconducting wiggler and the second hybrid wiggler, the four insertion devices designed for the Phase II upgrade of the National Synchrotron Light Source (NSLS) are all in place.

As these two magnetic devices were the last of the Phase II hardware to be installed within the NSLS rings, the equipment upgrade of the rings has been completed. However, completion and commissioning of the beam lines coming off the insertion devices will go on for a few more years.

The superconducting wiggler was installed in a straight section of the NSLS x-ray ring on Tuesday, February 7. A high-field magnet, the superconducting wiggler will provide hard x-rays with energies up to 100,000 electron volts. It will be used for the medical and materials science research on beam line X-17B, and for high-pressure studies on X-17C.

On Wednesday, February 15, the hybrid wiggler was put in another x-ray ring straight section, for use in inelastic x-ray scattering studies on beam line X-21. Identical to the magnetic device installed last year for X-25, the hybrid wiggler will produce x-rays that are 30 times brighter than those available from the NSLS standard bending magnets.

In addition to the X-25 hybrid wiggler, the other Phase II insertion device already within the ring is the soft x-ray undulator of beam line X-1A. As well, the vacuum ultraviolet ring is equipped with two insertion devices: an undulator commissioned in 1986, for spin-polarized photoemission experiments on beam line U-5, and another undulator, commissioned in 1987 for the transverse optical klystron experiment on beam line U-13.

Nobel Laureates (Cont'd)

of scientists from Columbia University appears promising enough to warrant the allocation of 500 more hours of beam time. This . . . has necessitated postponing until June 15 the shutdown of the machine . . . [June 15, 1962] Dr. Goldhaber informed the Trustees that the neutrino experiment . . . has been successfully concluded, and the results will be described at a press conference to be held on June 20, 1962.'. . . In fact, the historic paper on the results appeared about two weeks later, in the July 1, 1962, issue of the Physical Review."

And the Nobel laureates offered their thoughts:

Jack Steinberger: "I already gave some praise to the Nobel Committee for getting us together tonight, but now I would like to criticize them a little bit for being a few years too late because . . . it would have been so nice if there were a few people with us tonight. I think [I.I.] Rabi would have enjoyed it enormously, because Rabi was an enormous booster of Brookhaven, and it would have been a great pleasure. . . . Rod Cool . . . was a great boost to this experiment, and it's just a pity that he can't be with us tonight. The same is true for Ken Green. . . "

Mel Schwartz: "I think the thing that made it fun was the ability, more or less, to decide what one wanted to do, to put together the group to do it, and then to go ahead. I think that Brookhaven has been one of the few labs that has maintained a tradition of allowing this thing to happen. . . I was out on the AGS floor today, and I found quite a few of the experiments where major contributions were being made by people who were relatively young, and I think this Lab has done an outstanding job of trying to cultivate that kind of an attitude."

Leon Lederman (excerpted from a poem he wrote on the plane on the way to BNL):

". . . So counters and chambers and big bubble chambers
Were transported from Nevis across the big Sound.
Electronics from Sippach and gadgets galore,
All aimed at the secrets of nature profound.
. . . We discovered the sigma and the neutral kaon,
We counted the muons and looked for the quarks,
A match made in heaven, a team of great mavens —
Lederman, Steinberger, working with Schwartz.
. . . But all things considered, history is clear —
J and CP and neutrino and others —
Brookhaven's record clearly has no peer.
And with RHIC in its future there is nothing to fear,
Except ships that arrive in northern shore ports
Carrying Lederman, Steinberger, working with Schwartz."

On the podium at Berkner Hall: (from left) Gerald Feinberg, T.D. Lee and Maurice Goldhaber.

At a Thursday evening banquet, (from left) BNL Director Nicholas Samios and AUI President Robert Hughes presented Jack Steinberger with a plaque featuring the Bulletin Board's front-page story of July 3, 1962, detailing the Nobel Prize-winning experiment. Plaques were also given to Leon Lederman and Mel Schwartz.

All photos on this page by Roger Stoutenburgh.

From the Lecture Podium

Since he was BNL Director when the new Nobel laureates were conducting their experiment, Maurice Goldhaber opened the lecture proceedings on February 17, noting, "In the past, the Nobel Prize has often been given either for answering an important question or for opening up a new research field. But in this case it is noteworthy that both reasons were cited. It's been a long journey from the old Brookhaven Cafeteria to the table of the King of Sweden."

In his lecture on "This Was the Particle Physics That Was: Particle Physics from P and C Violation to CP Violation," Gerald Feinberg of Columbia University spoke of the period from 1960-65 as "an extremely fruitful one for particle physics, although, at the time, it didn't always seem to be that way. A series of experimental discoveries and a somewhat unrelated series of theoretical ideas . . . laid the groundwork for much of what has come to be known as the standard model."

Of the Nobel prize-winning research, Feinberg said, " . . . I think, even more important than the specific discovery of the muon neutrino, was the demonstration that high energy neutrino experiments could be done. This demonstration led to the tremendously influential series of neutrino experiments at Brookhaven, CERN and Fermilab. . . . All in all, there has been quite a legacy from a coffee-hour conversation . . . almost 30 years ago." — Anita Cohen

Inside Info

Two scientists from BNL's Physics Department were among the 316 individuals elected Fellows of the American Association for the Advancement of Science (AAAS) at the AAAS's annual meeting last month. The two are Physicist **Anthony J. Baltz** and Physics Department Chairman **Peter D. Bond**.

Formed in 1848, the AAAS currently has more than 132,000 members and nearly 300 affliliated scientific and engineering societies and academies of science. A Fellow of the Association is described as a member whose efforts on behalf of the advancement of science or its applications are scientifically or socially distinguished.

In becoming AAAS fellows, the two BNL honorees were cited as follows:

- **Anthony Baltz** — "For theoretical contributions to the analysis of the interactions of solar neutrinos within the sun and inside the earth, as well as contributions to science administration."
- **Peter Bond** — "For noted contributions to nuclear physicis, and for administration and leadership at Brookhaven National Laboratory."

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The 1986-87 edition of the *Brookhaven Highlights*, edited by **Mona Rowe**, Public Affairs, has received a Distinguished Technical Communication Award, the highest possible, from the New York Chapter of the Society of Technical Communications (STC). The Brookhaven Bulletin has also been honored with an Award of Merit, an STC third-place award.

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Morris Reich, who heads the Structural Analysis Division in the Department of Nuclear Energy, is part of a team of researchers which has been chosen to receive the American Society of Civil Engineers' (ASCE) 1988 Moisseiff Award. The award is presented annually to the author or authors of an important paper published by the society and dealing with the broad field of structural design.

With coauthors Masanobu Shinozuka and Howard H.M. Hwang, of the National Center for Earthquake Engineering Research, and Bruce Ellingwood, a member of the Center's Scientific Advisory Committee, Reich is being honored for the paper entitled "Probability Based Design Criteria for Nuclear Plant Structures."

Appearing in the May 1987 issue of the Journal of Structural Engineering, the paper summarized the results of a research program conducted from 1980-85 to develop improved rational analysis and design procedures for structures in nuclear plants. The research showed that probabilistic methods can be used to develop practical design criteria that reflect uncertainties in loads and strengths in a rational manner.

The research enables the following specific applications: evaluation of reliability levels for exisiting nuclear structures, development of load-combination criteria for design of new structures exhibiting uniform reliability, realistic estimation of safety margins in structures, and development of data necessary for probabalistic risk assessment of structures.

The award will be presented in May, at the ASCE Specialty Conference in San Francisco.

Addled Addresses

- Bloodhaven Nat Lab
- Brookhaven Nation Lab
- President
  U.S. Dpt. Energh Brkhv L Data
- Brooklyn National Labh
- Broken Heaven Nat. Labs

Gardening School

Cornell Cooperative Extension (CCE) of Suffolk County will again sponsor a Spring Gardening School this year, on the three campuses of Suffolk County Community College. Afternoon programs will be offered from 12:30 to 4:40 p.m., Saturday, March 11 and 18, on the campuses in Brentwood and Selden, respectively. A full-day program, to be held at the Riverhead campus on Saturday, April 1, will also feature an extension expo, plant societies and education exhibits.

Registration is required for the program, which includes gardening classes by experts of plant societies, master gardeners and CCE staff. For a complete program brochure and registration form, call Caroline Kiang, CCE Agent, 727-7850.

21 Years Healthy and Still Going Strong

Twenty-one years without a sick day — as of the end of 1988, Edward Sujeski Jr. holds that ongoing perfect attendance record in the Plant Engineering (PE) Division.

"I'm lucky — it's not that I don't get sick, but I just don't seem to get sick during the week," reports Sujeski, a rigger's assistant who has been employed at the Lab for over 22 years.

Sujeski was one of 62 people congratulated at a special coffee break by PE Manager Alfred Mahlmann, for having completed one or more years without being absent by the end of 1988. By letter, Mahlmann has acknowledged PE staffers with perfect attendance records every year since 1983.

Of the 62, seven have not been out sick from work for five or more years, so they were honored at a special luncheon on January 31. The seven healthiest PE employees are: Ben Belligan, five years; Ken Johnson, five; Bud Hulse, six; Frank Gaetan, seven; Ed Leitgeb, 12; Roy Barone, 12; and Sujeski.

As a child, Sujeski had stayed home for six months during his third- and fourth-grade years with "every childhood disease you can name, one right after the other," he remembers. "But, since then, luckily, I haven't come down with anything major."

When a minor bug does catch up with Sujeski, however, "I'll get it on a Friday afternoon," he explains. "I can hang in there until five, make it home, stay in bed all weekend, and, then, by Sunday evening, be well enough to go to work on Monday."

For his good health, Sujeski credits his positive attitude, moderate lifestyle and good luck. "I like going to work at the Lab — I've had several jobs here, and I've enjoyed them all," says Sujeski. "And, now that I've beaten Henry Boomer's 20-year record, I'm determined to beat Phil Miller's —25 years without being sick." — Marsha Belford

For his 21 years of perfect attendance, Ed Sujeski (left) accepts a congratulatory letter from Al Mahlmann.

French Pianist Jean-Yves Thibaudet at Berkner Next Week

Pianist Jean-Yves Thibaudet was only 18 years old when he won the Young Concert Artists International Auditions in 1981. Since then, he has emerged as a major presence on the international concert scene, winning the admiration of critics and audiences alike with his brilliant technique and eloquent phrasing.

On Wednesday, March 1, Thibaudet will give a concert at Berkner Hall, beginning at 8:30 p.m. He will perform the entire first book of Debussy's Preludes, as well as Chopin's 24 Preludes, Opus 28. This is the same program that he will give later in the month at Lincoln Center in New York City.

A native of Lyons, France, Jean-Yves Thibaudet began studying the piano at the age of five and gave his first public performance at seven. He studied principally with Lucette Descaves and Aldo Ciccolini at the Conservatoire de Paris, where he won the Premier Prix du Conservatoire at the age of 15.

In 1980, he was awarded the highest prize at the International Piano Competition in Tokyo and subsequently toured throughout Japan with the NHK Symphony, the Tokyo Philharmonic and the Nagoya Philharmonic. He has been invited back three times for extensive concerto and recital appearances.

Thibaudet has won critical acclaim in five consecutive seasons in the Spoleto Festivals in Italy, the U.S. and Australia. He recently made his debut appearances at the Casals and Schleswig-Holstein festivals, and he also appears regularly as a guest of the Chamber Music Society of Lincoln Center.

Thibaudet has made several recordings for Denon Records of the music of Ravel, Liszt and Chopin. His most recent disc, of the complete Chopin Preludes and three Nocturnes, was released internationally in 1987.

Tickets for the concert can be purchased at the door the night of the concert. Tickets are $9 for general admission, $6 for students and those over age 65, and $5 for those under 18.

Jean-Yves Thibaudet

To Your Health

The "Nutrition for a Healthy Heart" lecture series sponsored by the Health Promotion Program will conclude with the talk "Fiber and Carbohydrate in Your Diet," on Tuesday, February 28, at noon, in Berkner Hall. The speaker will again be the Director of the Dietetic Technician Program at Suffolk County Community College, Maria Museler, a registered dietitian.

team safety

Three Plant Engineering teams have become the Team Safety program's first three-time winners: the Heavy Equipment Shop, Grounds and Roads, and Steam Shop Teams have had no lost-time accidents since the start of the program. Our hats are off to them for a really good show!

Let's not forget the other teams out there continuing with their records. There were no lost-time accidents last week among the other 26 teams, which include over 650 players. The commissioner is counting on more winners next week, and word in the locker room is that the commissioner is on his way to Florida to recruit new teams. We wonder if this is considered a business trip.

Keep up the safe work!

IBEW Meeting

Local 2230, IBEW, will hold its regular monthly meeting on Monday, February 27, at 6 p.m., in the Knights of Columbus Hall, Railroad Avenue, Patchogue. There will also be an afternoon meeting at 2 p.m. for shift workers, in the Union office at 31 Oak Street, Patchogue. On the agenda will be regular business, committee reports and the president's report.

Arrivals & Departures

Bruce P. Abel ..... Reactor
Seshu S. Chalasani ..... S&EP
Louisa L. France ..... Biology
William Jew ..... NSLS
Leszek J. Klimczak ..... Biology
Walter M. Loss ..... DAS
Mark P. Toscano ..... Plant Eng.

Departures

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

Joel G. Pounds ..... DAS

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A History of Inventiveness

Should you or your friends or relations need heart surgery, receive blood from a blood bank, or have blood or medicine delivered to the site of an accident, you'll have cause to thank the Black originators of these life-saving ideas: Daniel Williams, the surgeon who conducted the first successful heart operation on record in 1893; Charles Drew, the physician who in 1940 developed a process of changing blood into plasma, making blood banks possible; and Frederick Jones, holder of over 60 patents, who in 1940 invented a cooling unit first used to carry blood, medicine and food to the wounded in World War II.

During Black History Month, it is particularly appropriate to recall these important contributions to the field of medicine, as well as some other inventions that owe their existence to the ingenuity of Black Americans. These include the mechanical seed planter, for which Henry Blair received, in 1834, the first patent granted to a Black American; machine-made shoes, thought up by Jan Matzeliger in 1883; the portable steam cleaner, F.J. Ferrell (ten patents, 1880-93); and the corn harvester, Harry Jones (1890).

Other such inventions were the toggle harpoon, which revolutionalized the whaling industry when Lewis Temple introduced it in 1848; the clothes drier, G.T. Sampson (1892); the street sweeper, Charles Brooks (1896); the automatic gear transmission, R.B. Spikes (1933); and the more than 35 patented devices from Granville T. Woods, including the steam boiler furnace (1884), an incubator (1900), the automatic air brake (1902), the overhead conducting system for electric trains (1887), and the induction telegraph system (1887), which allowed messages to be sent and received from moving trains.

Daniel Hale Williams **Charles Drew**

BERA Bus Trip To Atlantic City

Seats are still available on the BERA-sponsored bus to Trump Castle in Atlantic City on Saturday, March 25. The trip will leave the Brookhaven Center at 9 a.m., returning about 11 p.m.

The trip will cost $22.50 per person, but Trump Castle will return $17.50 in coins and give you a $5 deferred voucher — so the trip will actually cost nothing. Because these trips continue to be popular, BERA has scheduled a future trip to the same casino, so the deferred voucher can be redeemed there soon.

Paid reservations are being taken on a first-come, first-served basis at the BERA Sales Office in Berkner Hall, from 9 a.m. to 2 p.m., Monday to Friday. No refunds will be made unless someone else wishes to purchase the ticket. A waiting list will be kept. For more information, call Louisa Barone, Ext. 3347, Rosalie Piccione, Ext. 3160, or M. Kay Dellimore, Ext. 2873.

Wanted: Nominations For Restaurant List

The popular "Guide to Restaurants," a document frequently consulted by visitors to BNL, is being updated. The guide includes a listing of eating establishments located within a reasonable distance of the Lab that appeal to every pocketbook and palate. If you would like to recommend a restaurant, please send its name, address and type of cuisine to the Public Affairs Office, Bldg. 134.

Phone Upgrade Will Affect Some Features

Tomorrow, the Computing & Communications Division will be making a software upgrade to the telephone switch, which will cause eight- and 30-member speed-calling memories to be erased. Individuals with the speed-calling feature on their telephone will have to reprogram them on Monday morning. Also, any extensions that had been call forwarded to another number will need to be reprogrammed.

In Stormy Weather

Listen to:

Station	Area	AM	FM
WALK	Patchogue	1370	97.5
WBAB	Babylon	1440	102.3
WBLI	Patchogue		106.1
WCTO/ WGSM	Smithtown	74	94.3
WHLI/ WKJY	Hempstead	1100	98.3
WLIM	Patchogue	1580	
WLIX	Islip	540	
WLNG	Sag Harbor	1600	92.1
WRCN	Riverhead	1570	103.9
WRIV	Riverhead	1390	
WSBH	Southampton		95.3

***Or call:* 282-INFO.**

IRS Tax Tip: VITA

Volunteer Income Tax Assistance (VITA) is an IRS-sponsored program designed to help handicapped, non-English speaking or older taxpayers prepare their tax returns. Call 800-424-1040 for the VITA site nearest you.

Tomorrow: Spotlight on Youth

The curtain will rise tomorrow evening on young singers, dancers, actors and musicians taking the spotlight in the second Annual Youth Talent Show, sponsored by the Afro-American Culture Club. The competitors, whose ages range from six to 18 years, will come from all over Nassau and Suffolk Counties to compete for trophies in several categories. An arts and crafts exhibition will be held during intermission.

This last Black History Month event will begin at 7 p.m. in Berkner Hall. Tickets are $3, and they can be bought at the door or from Mary Durham, Ext. 7143; George Grigg, Ext. 5185; Frances Ligon, Ext. 3709; and Bruce Penn, Ext. 7213.

Public Sale Of Motor Vehicles

Twenty vehicles, located at Warehouse T-87, are being made available for public sale. They can be inspected Wednesday, Thursday and Friday, March 8-10, from 9 a.m. to 4:30 p.m. This will be an informal, competitive bidding, and the bid opening will be Wednesday, March 22. For further details, call Ext. 2302.

Computer Demo

The SUN CADDStation workstation product line of Prime/Computervision will be used to demonstrate mechanical engineering, electronics and PC board design, and AEC applications, on Thursday and Friday, March 2 and 3, from 10 a.m. to 4 p.m., in the lobby of Berkner Hall. For more information about this trade show-type presentation, or any special requests, call Ted Daniels, Ext. 5555.

Mugs for Sale

These "Brookhaven blue" mugs have now been added to the permanent stock of the BERA Sales Office, located in Berkner Hall. They are $3 each and can be purchased weekdays, from 9 a.m. to 2 p.m. —photo by Peter Horton

Update Your ID Card

Employees and guests — check your wallets. Has your BNL identification card expired? If so, please renew your card at Police Headquarters, Bldg. 50, 9:30-11 a.m., Mondays, Wednesdays and Fridays. For more information, call Hank Raimondo, Ext. 7258.

Bowling

White League

Sharon Smith rolled a 225, Pat Manzella 189, Marge Stoeckel 188, Mary Grace Meier 186, Mary Addessi 181.

Purple League

Karen Vogel had a 199, Marsha Kipperman 197/194/181, Gene Hassell converted the 6/7/10, Dennis Klein 3/7/10, Caryl MacDougall 6/7, Gil Spira 6/7/10.

Pink League

Donna Cunningham bowled a 191, Judy Colman converted the 5/8/10.

Red/Green League

H. Marshall had a 225/601 scratch, N. Parrinello 222, J. Morris 210/200, R. Mulderig 207.

Volleyball

Standings — Week of February 13

League I		League II	
Upfagrabs	39-6	Fossils	36-9
Dinkers	30-15	Set-Ups	35-10
Xrayted	28-17	Krush	30-15
Cannonballs	24-21	Nuts & Bolts	26-19
Phoubars	11-34	Ziegfield Vollies	18-27
Netminders	3-42	Slammers	14-31
		Chunga's Revenge	11-34
		Upton-Ups	10-35

League II		Open League	
Frazzled	43-5	Meriem's Team	35-7
High Volley'em	29-19	Phoenix	34-8
MISfits	28-20	Dig Your Lips	34-11
Sourcerers	27-21	Tom's Mutants	29-16
Printouts	26-22	Magnum	21-21
Spikes	18-30	Vollies	16-29
Good Timers	11-37	Rowdy Radicals	12-30
Renegades	10-38	Pi Chu	11-31
		Constables	0-39

Cafeteria Menu

Week of February 27

Luncheons

Monday, February 27

Soup: Cream of cauliflower	(cup)	.75
	(bowl)	.95
Beef & cheese tostados w/fixings		3.10
Salmon pasta w/veg.		3.10
Lite-line: Salad plate		2.25
Hot deli: Pastrami		2.85

Tuesday, February 28

Soup: Chunky tomato	(cup)	.75
	(bowl)	.95
Turkey divan w/sauce & veg.		3.10
Pork stir-fry over rice		3.10
Lite-line: Turkey breast w/veg.		3.10
Hot deli: Corned beef		2.85

Wednesday, March 1

Soup: Chicken noodle	(cup)	.75
	(bowl)	.95
Beef tips & mushrooms over noodles		3.10
Eggplant Parmesan w/garlic bread		3.00
Lite-line: Roast beef au jus w/veg.		3.10
Hot deli: Foot-long chili dog		2.85

Thursday, March 2

Soup: Cream of mushroom	(cup)	.75
	(bowl)	.95
Chicken teriyaki w/veg.		3.10
Pasta primavera w/veg.		3.00
Lite-line: Broiled chicken w/veg.		3.00
Hot deli: BBQ fresh ham on roll		2.85

Friday, March 3

Soup: Vegetable	(cup)	.75
	(bowl)	.95
Crab cakes & spaghetti w/garlic bread		3.10
Ham & potato au gratin w/veg.		3.10
Lite-line: Broiled fish w/veg.		3.10
Hot deli: Chicken patty		2.85

Breakfast specials

Monday:	Egg & sausage on roll	1.50
Tuesday:	French toast w/bacon	1.00
Wednesday:	Western omelet w/toast	1.45
Thursday:	Beef hash & one egg	1.50
Friday:	Two pancakes w/syrup	.70

Classified Advertisements

Placement Notices

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

Each week, the Personnel Office lists new personnel placement requisitions. The purpose of these listings is, first, to provide open placement information on all non-scientific staff positions; second, to give employees an opportunity to request consideration for themselves through Personnel; and, finally, for general recruiting purposes. Because of the priority preference policy stated above, each listing does not necessarily represent an opportunity for all candidates. As a guide to readers, the listings are grouped according to the anticipated area of recruitment.

Except when operational needs require otherwise, positions will remain open for one week following publication date.

For further information regarding a placement listing, contact the Employment Manager, Ext. 2882.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside applicants.

3089. HEALTH PHYSICS POSITION - Requires a bachelor's degree in health physics or equivalent and training in health physics. One of the main responsibilities will be to organize and maintain the summer Health Physics Fellows Program for graduate students. Will be involved in recruiting and coordinating admissions, developing curriculum, conducting training and coordinating Division staff functions for the Program. Will also provide general health physics support for the Division during the remainder of the year. Excellent communication skills are required. Safety and Environmental Protection Division.

Motor Vehicles & Supplies

88 FORD ECONOLINE VAN 251 - capt. chairs, a/c, am/fm, trailer towing pkg., low mi., extras, $12,000. 584-6730 after 5 p.m.

87 PROWLER TRAVEL TRAILER - 18', picture window, awning, full bath, w/shower, mint cond. 475-5849.

86 IROC - blue, 22k, 305 TPI, a/t, warr., T-top, loaded, Alpine stereo, mint cond., $11,500 neg. Fred, Ext. 3155.

86 RENAULT ENCORE - sporty, 17k mi., 4-spd., stripes, sunroof, am/fm cass., 4 speaker, mint cond., $3,750. 689-7259 after 5 p.m.

86 HONDA CIVIC SI - h/b, 5-spd., 50k mi., sunroof, am/fm cass., new tires, muffler, clean in & out, asking $5,500. Chris, Ext. 2022.

86 AUDI 4000S - 4-dr., met. gray, am/fm cass., all power, sunroof, a/c, cruise control, alloy wheels, Eagle GT radials, $6,500 or best offer. Ext. 7625.

85 FORD TEMPO - 4-dr., 17k mi., a/c, p/s, a/t, am/fm cass., immac. cond., non-smokers, $6,500. 589-3608.

84 DODGE CONQUEST - same as Starion, 5-spd., black, silver leather, must sell, make offer. 878-0842.

83 TOYOTA CELICA G.T. - a/t, loaded, new Pirellis, alloys, immac. cond., orig. owner, $4,800. Artie, Ext. 5215.

83 SUBARU STATION WAGON - low mi., excel. cond., $2,250. Ext. 3102 or 5345.

82 COROLLA PARTS - Toyota oil filter, $3; donut spare, never used, $15; '82 Tercel parts, Toyota oil filters, 3/$3; service manual $15. Bob, Ext. 4749.

82 VW RABBIT - 4-dr., 4-spd., am/fm, good cond., $900. Mark, Ext. 4289/2024 or 281-5060.

82 VW RABBIT - 4-dr., good cond., leaving, must sell, $950. Ext. 5345 or 3102.

81 SUBARU STATION WAGON - white, s/t, $1,200. Ext. 4144.

80 TOYOTA COROLLA WAGON - 51k mi., 5-spd., s/t, am/fm, excel. cond., $3,300. Bill, Ext. 4967.

80 CHEVETTE - high mi., new muffler, kept well, always starts, $400. Keimpe, Ext. 5190, 9:00 a.m.-6:00 p.m.

80 OLDS TORONADO - loaded, needs paint, asking $3,000 or best offer; '80 Chevy Chevette, a/t, needs cam shaft, as is, $500 or best offer. Ext. 2239.

79 SUZUKI GS750 MOTORCYCLE - needs work, good for parts, 17k mi., $50. Bob, Ext. 5010 or 289-2986.

78 MAZDA GLC - new tires, struts, rear end, runs, needs work, $300 or best offer; push bar, black, for full-size truck, $45. John, Ext. 3675 or 924-3578.

78 AMC GREMLIN - 4-cyl., 4-spd., am/fm, runs well, $425. Frank, 399-4480.

76 DODGE VAN - needs timing chain, great for hauling people or materials, lots of seats,, $1,000 or best offer. Ext. 2239.

75 SKYLARK - runs every cay but ..., $100. 929-5945 after 6 p.m.

74 F250 PICKUP - 4x4, cap, 390 engine, drive train, rebuilt trans., brakes, bearing, 7" lift, 8' power angle plow, asking $4,000, make offer. 474-5715.

74 GMC PICKUP - ¾-ton, 2500 series, 8-cyl., a/t, runs well, asking $450 or best offer. Tony, 698-9274.

68 LINCOLN CONTINENTAL - runs well. Keith, 474-3863.

WHEELS - Centerline, 4 alum., for Chevy truck, 5 lugs, like new, $150; '66 Ford Mustang parts. Dick, Ext. 3457.

TIRE - radial, M/S, 195/14R, mounted on Ford rim, $15. Mike, Ext. 4988.

SNOW TIRES - 2, P195/75B14, like new, $10 ea. Stephen, 265-3982 after 6 p.m.

TIRE - 185/70SR14 M.S., copper, radial, steel belt, $40. Ken, Ext. 2214.

TIRES - from Dodge pickup, like new, $200 w/rims. John, 477-9633.

CAP - for full-size pickup, aluminum, w/windows. $50. Frank, 399-4480

Boats & Marine Supplies

25' CHRIS CRAFT - 1980, i.b., fwc, full head, shower, hot water, shore power; $15,000. Bill, Ext. 2807 or 281-0557.

24' SEA RAY - 1976, fiberglass, Merc I/O, stand-up head, sink, stove, VHF, depthfinder, compass, sleeps 4, $12,000. 744-0093 after 6 p.m.

21½' BAYLINER -1985, cuddy cabin, 130 h.p. OMC, low hours, depth gauge, ship-to-shore, $7,500. 654-0670 days.

19' CRUISER INC. - 1972 Bowrider camper., w/1976 115 h.p. Johnson, Coast Guard pkg. and trailer. Frank, 567-5131.

19' SPORTSCRAFT - 1981, cuddy cabin, 90 h.p. Johnson, 1981 Shoreline trailer, winter canvas, $4,500 firm. 281-6782 eves.

17' WINNER - 85-h.p. Johnson, excel. cond., new trailer, asking, $2,700. Bill, 924-1039.

12' SEAGULL SAILBOAT - best offer. 744-6059.

15' CANOE - Oldtown, fiberglass construction, red, excel. cond., $200. 363-2070.

OUTBOARD MOTOR - 1985, Mercury 90 h.p., w/controls & cables, 5 mos. left on warranty, excel. cond., $2,100. Ken, 281-8458.

OUTBOARD MOTOR - 1984, Mercury 90 h.p., missing power head, $550; power winch, $40; new Merc prop., $60. Bart, Ext. 3457 or 924-6761.

Furnishings & Appliances

BEDROOM SET - queen chiropractic mattress, woman's dresser w/mirrors, night table, excel. cond. $300 neg. 369-9720.

OAK HUTCH - MLU, excel. cond., 48", $400; maple twin bed, $25. 924-3082.

SECTIONAL SOFA - 2 piece w/throw pillows, 4 yrs. old, beige, $75. 472-0392 or 472-6922 after 5 p.m.

EASY CHAIR - traditional, plaid, very good cond., $50; double bed frame, on wheels, excel. cond., $20. 345-3170 after 6 p.m. and weekends.

BATHROOM VANITY - beige, w/sink, Kohler toilet, $250; white vanity w/brown Kohler sink & crystal faucets, $100. Tom, Ext. 4084 or 878-1060.

BEDROOM SET - 3-pc., maple, dbl. bed, mattress & boxspring; single bed, 4-post cherry; formica dining table, 3 leaves, 40"x58". 584-6729.

WICKER CHAIRS - 3, w/cushions, grab them before the antique dealers get them. Carol, Ext. 4398.

AIR CONDITIONERS - 2, casement window size, 5,000 Btu, working, $20 ea. Victor, Ext. 2395.

BOXSPRING & MATTRESS - full-size, like new, $150. Penny, Ext. 2625 or 467-8297 eves.

LIVING ROOM FURNITURE - couch, 2 yellow chairs, end tables, desk, Lester spinet piano, grandfather clock. R. Clark, 924-5533, Ext. 225.

CONVERTIBLE OTTOMAN - Castro, instant bedroom, good cond., $25. J. Depken, Ext. 4697.

DINING ROOM HUTCH - & server, walnut, excel. cond, best offer. Francis, 878-1529 after 5 p.m.

DINING TABLE - w/4 chairs, $30; convertible bed, $40; sofa, $50. Lin, Ext. 3137 or 4480.

DINING TABLE - maple, rectangle shape, old, 1 leaf, 4 chairs, $100; 2-piece couch, new, large chair, clean, $100. Jack, Ext. 5565.

FREEZER - Philco upright, 9 cu. ft., $75; Cuisinart Comm'l. 5-pc. cookware, $115; blender, 14-spd., $15; Drinkmaster, $10. 585-6518, 8 a.m.-5 p.m.

DRESSER - w/mirror, maple & mahogany, $100. 689-7326.

JUVENILE FURNITURE - 3-drawer dresser & bookshelf, excel. cond., $50. Paul, Ext. 3308.

LIFT CHAIR - upholstered, beige, good cond., orig. $1,200, asking $450. Joan, Ext. 4697.

BOOKSHELF - pine, 4 shelves, 3½'hx4'wx1'd, $20. Dan, Ext. 4987 or 698-7322.

Tools, House & Garden

COAL STOVE - Lange, good for shop or garage, $50. Frank, 399-4480.

TOPSOIL - delivered, fine screened, $19 per yd., also sand and gravel delivered. 924-9427 anytime.

SNOW PLOW - complete Myers unit, 7' power angle, Electrotouch unit, 1-yr.-old. Pete, 399-2813.

COAL STOVE - Surdiac, Southport model, 38k Btu rated, heats 11k cu. ft., incl. accessories, best offer. Joe, Ext. 5139.

LAWNMOWER - 21", Toro, self-propelled, electric start, catcher, side adapter, thatcher, used 1 season, $300. Jack, Ext. 5565.

SNOWBLOWERS - auger-type, Sunbeam, 22", electric you-push, $100; LawnMaster, 20", gas, self-propelled, you-assemble, $100. Ext. 2395.

PUMP - shallow or deep well, Sear's best jet, ¾ h.p., w/new check valve, $75. Charlie, Ext. 3950.

WOOD/COAL COOKING STOVE - porcelain, extras, good cond., $500. Ext. 3083 or 281-6782 eves.

SNAP-ON TUNE-UP CENTER - 3 meters, $250; Snap-on brake bleeder, $125; 20-ton air-power hydraulic jack, $250. 474-5715.

Sports, Hobbies & Pets

POOL TABLE - regulation size, accessories incl., fair cond.; ping-pong table, w/accessories, $85 takes all, price neg. Danny, 286-1278.

RECORDS - 386 LPs & 45s, $50; old music sheets & books, 1940's, $1 & $2 ea. 878-6637.

HEALTH CLUB MEMBERSHIP - Jack LaLanne, lifetime, renewable, Olympic Gold membership, beat the price increase. Jack, Ext. 2907.

SCUBA EQUIPMENT - Dacor B.C. vest, $175; wet suit, $175, tank, $85; Aqualon reg., $125; underwater lamp, $50; knife, $45. John, Ext. 5302.

PIANO - Lester Betsy Ross spinet, light wood, includes bench, $700. Tony, Ext. 3658 or 3637.

FISH TANK - 30-gal., incl. rocks, filters, stand, lighted hood, heater, etc., everything you need to start. Chris, Ext. 4028.

BIKE - 10-spd, 24" wheels, Sears, $25. 751-1884 eves. & wknds.

MOTORCYCLE HELMET - Bell, white, size large, $40. Ken, 281-8458.

GOLD TAGUE LIZARD - w/55-gal. tank, heat rock, water basin, $125. 821-1042.

Audio, Video & Computers

TURNTABLES - ADC 3001 direct drive, AT12XE cartridge, $70; Garrard belt drive, Pickring V5 cartridge, $30. Brian, Ext. 5265 or 234-9487.

PC JR. - expanded dual drive, internal modem printer w/mouse, joystick, misc. programs, 640K, $1,000. Ext. 7189.

VCR - cable-ready, wireless remote, excel. cond., $100. Ext. 7732.

PROJECTION TV - NEC, 40", sharp & bright, $1,100. 345-5681.

TUNER - Sony, ST-JX5, am/fm tuner, 10.3 db sensitivity, 1.0 db capture ratio, $95. Ext. 5400 or 878-6098.

Miscellaneous

WALKING SHOES & BOOTS - leather, 38 woman's European size; sweaters, new, handmade, mohair & wool. Ext. 3102.

ANTIQUES & COLLECTIBLES - make appointment; woolen coats, 2, sizes 9 & 10, rabbit trim, like new, $20 ea. 744-2203.

BAKER'S RACK - designer detailed, for display of plants/bowls, use in kitchen, family rm., porch. Carol, Ext. 4398.

TICKETS - for 50's dance, 3/10/89, for benefit of travel soccer team, live band. George, Ext. 4453.

CRIB - w/mattress, up-down side fence, $40; baby swing, like new, $35. Aoki, Ext. 3748 or 345-3271.

TICKETS - 2, Metropolitan Opera, Massenet's *Werther*, Sat. matinee, March 18, dress circle, Shicoff, Upshaw singing, $47 ea. Carmen, Ext. 4135.

Lost & Found

LOST - Please return Time Line computer software borrowed from Dave at MIS. Ext. 2076.

Car Pools

BELLPORT - 5th member wanted for established car pool. Liz, Ext. 2346, or Ed, 286-7539 after 6 p.m.

Real Estate

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

For Rent

CENTER MORICHES - office space, Main St., will alter to suit needs. 874-2934 or 878-0207.

CENTER MORICHES - spectacular 3-bdrm. Bayfront ranch, l/r, d/r, kitchen, family rm., $900 or for sale. Ext. 5277 or 549-5802.

EAST PATCHOGUE - new, furnished studio, includes TV, cable, a/c, $450/mo. 654-9171 eves.

EAST PATCHOGUE - 1-bdrm. apt., eik, full bath, l/r, priv. ent., furn. or unfurn., $600 all. Andy, Ext. 2907 or 289-1755.

MILLER PLACE - 2-bdrm. apt., full bath, kitchen, l/r, off-road parking, use of yard, no pets, heat, elect., basic cable incl., 1-yr. lease, 1-mo. security, $750 all. Mike, Ext. 3981.

RIDGE - 2-bdrm townhouse, wall-to-wall carpeting, all appliances, furnished, 5 min. from Lab. Ext. 4525 or 981-4696 after 6 p.m..

ROCKY POINT - small 1-bdrm. house, partly furnished, l/r, kitchen, deck, near town, ideal for single, $450 plus util. Joan, Ext. 4697 or 744-9423 after 6 p.m.

SHIRLEY - 3-bdrm. apt, l/r, d/r, eik, full bath, w/w carpet, very clean, immed. occup., 1-mo. sec., $900 incls. all. 281-3332 after 3 p.m.

SHIRLEY - 3-bdrm. house, l/r, eik, near Bay & Smith Point Bridge, quiet neighborhood, $825/mo. plus util. George, 286-3231.

WADING RIVER - 1-bdrm. apt., eik, full bath, large l/r, one block to Sound, 10 min. to Lab, $575 incl. util. 929-3419 after 6 p.m.

HILTON HEAD, SC - 2-bdrm. condo, sleeps 6, tennis, golf, beach, pool, Feb. $300/wk. Guy, Ext. 3147 or 585-9149.

For Sale

CORAM - 9-rm. Colonial, cul-de-sac, 4-bdrm., 2½-bath, fam. rm., f/p, eik, d/r, l/r, mud rm., in-ground pool & sprinkler, 2-car gar., extras, $195,000. Nelson Tyler, Ext. 2303 or 732-3902 after 5 p.m.

EAST SETAUKET - 4-bdrm. Colonial, 2½-bath, eik, l/r, d/r, fam. rm., f/p, wood floors, screened porch, finished bsmt., 2-car gar., 0.52 acre, GHWH, vinyl siding. Shiue, Ext. 4395/3372 or 751-8224.

EAST SETAUKET - 4-bdrm. ranch, 2-bath, eik, l/r, d/r, finished bsmt., on fenced ⅓ acre, excel. cond., 3V schools, $144,900 eves.

MIDDLE ISLAND - Coventry Manor 3-bdrm. townhouse, 2 baths, 5 appliances, c/ac, swimming pool, tennis courts, $118,000. 289-5704 after 5 p.m.

NORTH SHIRLEY - 3-bdrm. cape, 2-bath, full bsmt., large property, just remodeled, new well, vinyl siding. Mark, Ext. 4289/2024 or 281-5060.

RIDGE - 5-bdrm. cape, 2-bath, 2-car gar., l/r, w/stove & stone work, country kitchen, large priv. yard, porch, deck, ideal M/D, 5 min. to Lab, $147,000. 924-4749.

STONY BROOK - 4-bdrm. Colonial, 2½-bath, d/r, family rm., eik, 2-car gar., fenced, ½ acre, new siding, windows, doors, immac. cond., asking $199,000. 689-8605.

HOLIDAY, FL - Sandpiper, 3-bdrm., 2-bath, 1½-car gar., cathedral ceilings, corner lot, utility rm., sprinklers, clubhouse facil., near mall & county park, 3 yrs. old, asking $75,900. Rex, 474-5715.

MADERIA BEACH, FL - timeshare, Commodore Beach Club, week 45, Nov. 5-11, sleeps 4 adults, pool, hot tub, on Gulf, beautiful view, asking $5,000. Rex, 474-5715.

Wanted

PARTNER - wanted to share ownership of 30' sailboat. Ext. 7699 or 821-1435.

BICYCLE - boy's, 16", good cond., reasonable. Haim, Ext. 3293 or 3077.

HOUSE - 1 week, May 15-May 22, Bellport-Southampton area. Ext. 3123 or 728-8692.

WOOD FLOORS POLISHED - & buffed. Carol, Ext. 4398.

PIANO - old grand piano, need not be working perfectly. Jim, Ext. 5400 or 878-6098.

BABYSITTER - on-site, or very close for 3-mo.-old. Ext. 3651.

CAMERA REPAIRPERSON - music stand. 363-7032.

ACOUSTIC GUITAR - looking for quality instrument. Ron, Ext. 4662.

In Appreciation

My heartfelt thanks for all your acts of kindness and support when it was needed. Miss you all!

— Love, Linda (LZ)