

## HEPAP Panel Recommends Muon Collider R&D, DOE Provides Million-Dollar Support

Following this February's recommendation by the Gilman Subpanel of the U.S. Department of Energy's (DOE) High Energy Physics Advisory Panel (HEPAP) "... that an expanded program of R&D [Research & Development] be carried out on a muon collider, involving both simulation and experiments," DOE, on March 6, granted \$1 million to a team of physicists who, in July 1997, had formed the Muon Collider Collaboration to work on the design and physics of such a machine.

The collaboration's spokesperson, Robert Palmer, heads BNL's Center for Accelerator Physics, and, with David Neuffer, now at Fermi National Accelerator Laboratory (Fermilab), has also initiated much of the present interest in such colliders since well before March 1995, when the two researchers presented their new design for a high-luminosity muon collider to

DOE's Office of High Energy & Nuclear Physics in Washington, D.C. (see Brookhaven Bulletin of March 31, 1995).

In its draft report on "Planning for the Future of U.S. High Energy Physics," the Gilman Subpanel had identified as a priority the need to "position the U.S. program for a long-term leading role at the energy frontier through vigorous research and development on possible future facilities."

A muon collider would fulfill such a requirement, and the recommendation for muon-collider R&D was among the seven issued in the subpanel's report.

In a muon collider, two beams of muons, which are heavy, weakly interacting particles of the lepton family — one positively and one negatively charged — would intersect in a relatively small collider ring. In the present design, the energies of these muons in

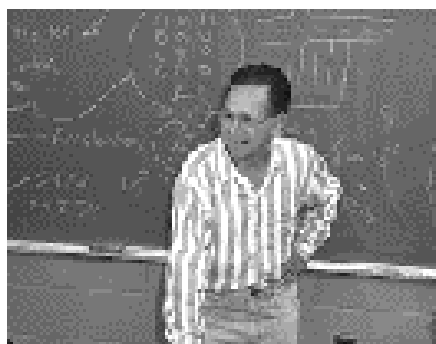
each beam would be up to 2 trillion electron volts (TeV), thus providing the foundation for exploring the multi-TeV range of particle physics.

In addition, it has become apparent that at the far lower energies of about 50 billion electron volts, a muon collider could provide a unique possibility for precision measurements of the properties of a Standard Model Higgs boson, a long-sought particle whose relationship with other particles is expected to explain their mass.

Since the early work done by Palmer and Neuffer in 1994-95, an informal collaboration of scientists began to look at the beam dynamics problems that could be expected in the new machine. The team included researchers from BNL, the Budker Institute of Nuclear Physics, Novosibirsk, Russia; Fermilab; Lawrence Berkeley National Laboratory; Princeton University; the University of Mississippi; and the University of California, Los Angeles.

Said Palmer, "An inch-thick feasibility study was presented at the Snowmass Workshop in July 1996. Then, the collaboration took formal shape in July 1997, at a meeting on Orcas Island in Washington State. The second collaboration meeting has just taken place at Ocean Shores in Alabama, and we hold many mini-workshops on technical subjects."

Possible sites for a first muon col-



**Robert Palmer, who heads BNL's Center for Accelerator Physics, is spokesperson for the Muon Collider Collaboration.**

lider include BNL and Fermilab, both of which, Palmer said, have the basis for the needed high-intensity proton beams to make the muons. But, he said, "It is too early to be talking about sites."

At present, the collaboration is working on proposals for a target experiment at BNL and a cooling experiment at Fermilab.

"We must advance our theoretical studies and complete these crucial experiments before we can talk about where the machine will be built," Palmer insisted, "but now, with this new funding, we can start 'cutting metal.'" — Liz Seubert

*Editor's note: As reported in the Brookhaven Bulletin of March 13, 1998, the Gilman subpanel also recommended that the research program at BNL's Alternating Gradient Synchrotron (AGS) continue on a limited basis even after the AGS becomes an injector for the Relativistic Heavy Ion Collider.*

## BNL Cleanup Project Addresses Chemical Contamination Off Site

Last Thursday, March 26, BNL announced plans to use an innovative cleanup technology to treat chemical contamination in groundwater south of the Lab.

Construction of BNL's first off-site cleanup system will begin this summer on vacant land in an industrial park just south of the Long Island Expressway.

The system will treat carbon tetrachloride and other volatile organic compounds previously detected in groundwater monitoring wells at depths of 180-300 feet below land surface.

The primary contaminant, carbon tetrachloride, is a solvent that BNL once used to clean metal parts and machinery. In the past, it was also widely used by industry as a dry-cleaning fluid and by homeowners as a spot remover.

Although contamination has been found in ongoing sampling of deep monitoring wells, a 1995 sampling of residential wells just south of the industrial park showed no contamination from BNL above state and federal drinking water standards. Residential wells are generally shallow, ranging from 80 to 120 feet below land surface.

As a precautionary measure, however, the U.S. Department of Energy offered homes and businesses in the area free public-water hookups beginning in January 1996.

The Suffolk County Water Authority has stated that there is no contamination from BNL in the public drinking-water supply.

The highest concentrations of carbon tetrachloride are found beneath the industrial park. Monitoring wells in that area, first installed in 1995, have measured carbon tetrachloride in concentrations of up to 5,140 parts per billion. The drinking water standard for carbon tetrachloride is 5 parts per billion.

The cleanup system will use six recirculating wells that will mix air with groundwater, causing the volatile solvents in the water to be removed from the water and collected in the air. Clean water will be returned to the ground, and the air will be sent through a carbon filter to remove the solvents. The clean air will then be recirculated back to the wells. Each of the six wells will treat up to 100 gallons per minute.

### Three Information Sessions

BNL will hold three information sessions on the off-site treatment system: one today, April 3, for BNL employees, from 11 a.m. to 1 p.m. in Berkner Hall lobby, and two more for all community members at the Longwood Middle School, on Saturday, April 4, 10 a.m.-1 p.m., and on Monday, April 6, 5:30-8:30 p.m.

Environmental remediation at BNL is carried out under requirements of the federal Comprehensive Environmental Response, Compensation and Liability Act of 1980, commonly known as the Superfund law. The Lab is on the Superfund list primarily due to past operations that have resulted in soil and groundwater contamination.

Remediation work is conducted under the framework of an inter-agency agreement among the U.S. Environmental Protection Agency, the New York State Department of Environmental Conservation and DOE, which has jurisdiction over the BNL property and pays for the cleanup.

To address contamination on the BNL site, the Lab has installed four remediation systems since 1996 to remove solvents and fuel oil from groundwater and soil, and to prevent further migration of these contaminants off the property.

— Kara Villamil

## Lab and Brookhaven Town Sign Five-Year Recycling Agreement

All of the nearly 2,000 tons of recyclable material that BNL generates each year will now be sent to Brookhaven Town's Materials Recycling Facility (MRF) under a new, five-year recycling contract that BNL has signed with the Town.

Because more of the Laboratory's waste will be recycled, BNL expects to see annual savings of about \$20,000 that previously went to the Town in "tipping" fees of \$80 for each ton of refuse sent to the Town landfill.

Likewise, the Town should profit by having more recyclables to sell to companies that reclaim the materials for use in new products.

Under the agreement, BNLers will continue to collect and sort recyclables, including paper, cardboard, plastic, cans, glass and construction debris, as they have since the on-site recycling program was initiated in 1990 — with one exception: all paper, white and mixed, will be collected together, in new blue containers.

After Lab custodians collect recycled materials from individual containers around site, recyclables will be taken to the MRF in Brookhaven Hamlet, for further sorting and packing.

As it has done since 1990, the Town will also continue to receive BNL's nonhazardous and nonrecyclable waste, while all of the Lab's hazardous, radioactive and mixed waste will continue to be collected, packaged and

sent for off-site disposal by licensed contractors.

### Here's Where You Come In

Currently, BNL recycles some 126 tons of paper, 20 tons of bottles and cans, 89 tons of cardboard, 844 tons of construction debris and 17 tons of tires each year.

Every work area around the Lab has several recycling bins and is assigned a recycling coordinator, and BNL's custodians are trained to ensure that potentially recyclable materials are not thrown out.

*And that's where you come in.*

Everytime a BNLER puts a recyclable into the "regular" garbage can, one of two things will happen.

The recyclable will end up going to the landfill with the "regular" garbage, increasing the tipping fees to the Lab, adding to mountain of refuse already there and missing an opportunity to be recycled into another useful item.

Or, it will be rescued from the garbage can by an observant and conscientious custodian.

"The custodians are required to follow up on this," explained BNL's Recycling Coordinator Slim Blevins. "So if you don't do your job of recycling in the first place, you're just going to burden your custodian."

Blevins, who is General Supervisor, Custodial Services, in the Plant (continued on page 2)



Recycling at BNL (cont'd.)

Engineering Division, is credited with starting the ball rolling toward the Lab's agreement with the Town.

Previously, recyclables were given to an independent contractor who sold them for profit. But, said Blevins, "We had difficulty with the contractor, and we couldn't change because we only had one bidder each time we went out for bids — until we were talking to

Brookhaven Town about other matters, and then we started talking about recycling."

Now, Blevins said, "We're really happy about the affiliation with the Town. It's going to be more work for Plant Engineering, but it's also going to be a better partnership with the Town — and, we hope, will save BNL lots of money."

*Again, that's where you come in.*  
By now, every office and work area



Roger Stoutenburgh

**BNL Recycling Coordinator Slim Blevins (left) discusses the changes to BNL's recycling program that go into effect on Monday with Patricia Jencius, the recycling contact for Supply & Material in the Administrative Support Division, and Herbie Harris, Plant Engineering Division, who drives the truck that now does double duty picking up both recyclables and other refuse from bins around site.**

What Goes In That New, Blue Bin?

Starting Monday, all your paper recyclables — both white and mixed — should go into the blue bin. If you or your area do not have such a container by the end of the day today, contact your recycling coordinator.

Mixed low-grade papers include:

- junk mail
- catalogs
- color inserts
- magazines
- envelopes
- copy paper
- school paper
- books (but no covers)
- index cards
- yellow legal pads
- wrapping paper (non-metallic)
- greeting cards
- NCR paper (carbonless carbon paper)
- telephone books
- office paper
- fax paper
- computer paper
- white ledger paper
- manilla folders
- sweepstakes forms
- construction paper
- post-its
- newspapers

Do NOT put in the new, blue bin:

- cardboard from the back of paper pads
- cellophane or plastic wrappings
- blueprints
- carbon paper
- metal binders
- hard covers

should have a new, blue container clearly marked and ready to receive paper for recycling. If you don't have one by the end of the day today, call your recycling coordinator, because you'll need it on Monday, April 6, when BNL's new rules for paper recycling go into effect.

No longer will you put white paper into the cardboard box with its three cute little raccoons. No longer will you put mixed paper into the too-small white container. No longer will you have to sort paper or wonder if you're doing it right.

Starting Monday, you'll put all your recyclable paper (see box above) into those new, good-sized, blue bins.

Then, every Tuesday morning, you'll have that container outside your office door, so your custodian will know that its contents are ready for recycling and, in case you're not around when your custodian shows up, there will be no question that you intend to dispose of that paper.

As for cans, glass, bottles, jars and plastics (grades 1 and 2) — nothing changes. They still go into the yellow bins, and cardboard will continue to be collected at the same locations.

For more information, contact the recycling coordinator for your department or division; call Blevins, Ext. 4806, if you need your coordinator's name. — Anita Cohen

Gorman-Metz Scholarship Alert

Application forms are now available for the Gorman-Metz scholarship, which is offered to children of BNL employees.

The annual scholarship is a one-time, \$5,000 award for a student who has a disability, as defined by the Americans With Disabilities Act, and who is matriculating at an accredited institution to pursue a graduate or professional degree, with preference given to studies in science, engineering and math. If approved by the Gorman-Metz Scholarship Committee, then other courses of study may be deemed eligible. Undergraduates will be considered if there are no graduate-student applicants.

Qualified applicants are: children of BNL employees who began regular, full-time, or regular, eligible part-time employment no later than November

1, 1997, and whose parents are employed by BNL when the award is announced this July; or children of retired employees or employees who died while in regular service at the Lab. Stepchildren are eligible if employees regularly claim these children as dependents for income-tax purposes, or if the stepchild has resided in the employee's household for the two years immediately before application.

The application deadline is May 15, and the scholarship winner will be selected by July. The names of applicants and their parents will be kept confidential. The name of the scholarship winner will be announced only with the consent of the recipient and his or her parents.

For applications or more information, contact the Diversity Office, Bldg. 185A, Ext. 3318.

Hunger Increases, But You Can Help

As you think about donating to BNL's April Food Drive all next week, also think about recent studies reported in *USA Weekend* magazine of March 27-29.

These studies, according to the article entitled "Hunger, a startling crisis," find a growing emergency of hunger in the U.S., with charities regularly running out of food before some hungry families can be fed.

For example, notes the article, the U.S. Conference of Mayors found that emergency food needs were up 16 percent in 1997, and that although one in five requests for food are not being met at present, 92 percent of cities expect demand to rise this year.

Second Harvest, a national food distribution program, finds that two out of five households using charity have someone working, half of them full time. But these families' low earnings barely cover rent, heat and medical bills. Even more, the article points out, food-bank users are often destitute: perhaps seniors on fixed incomes or people with disabilities or diseases.

But, although the need is so great, agencies are finding donations from better-off families dwindling.

Through the Food Drive, BNLees now donate about 22,000 pounds of food a year to the needy families of Brookhaven Town — but a year or two ago, the average total was higher, say Food Drive Coordinators Rita Kito and Donna Wadman.

Kito and Wadman ask that all BNLees make a special effort, this April and every month, to give a can or more of nutritious food to the BNL Food Drive. If you have no time to shop, send a personal check made out to BNL Food Drive, c/o Rita Kito, Bldg. 460, or Donna Wadman, Bldg. 129.

Many BNL staff spend time and effort picking up contributions from the food bins around the site. Please give them a lot of work to do!

Silicon Graphics Demo

On Tuesday, April 7, at 10:30 a.m. in the Computing & Communication Division's seminar room, Bldg. 515, Silicon Graphics Inc. will present a technical discussion of their products. Included will be Silicon Graphics' new, Wintel-based Visual PC. For more information, call John Spiletic, Ext. 4112.

Update: BNL Stationery And Business Cards

A temporary design has been settled on for BNL's stationery and business cards, but before deciding on the quantity you need to order, please note that this design could change later in the year.

• **Letterhead and Envelopes** — The Information Services Division has started to process orders it has already received for letterhead and envelopes. *Orders already placed do not need to be resubmitted.*

To obtain supplies of stationery or check on an order you have already placed, contact Judy Otto, Information Services Division, Bldg. 197, Ext. 2913 or jotto@bnl.gov.

• **Business Cards** — Under government regulations, BNL's Information Services Division cannot print business cards. So the Division of Contracts & Procurement (DCP) is soliciting outside firms to establish an agreement for employees to purchase business cards directly, without DCP's serving as the middleman. When this process is complete — in about two weeks — employees will be notified via e-mail.

Individuals are also free to use a printing company of their choosing.

For more information or to see sample business cards, check the DCP website at <http://www.dcp.bnl.gov>, where the "for BNL only" section will be updated as soon as the agreement is completed.

In Memoriam

**Judith Spara**, an administrative services assistant in the Reactor Division, died on March 1, after a long illness. She was 51 years old.

When Spara first came to BNL, on February 29, 1988, she was a senior office services assistant in the Housing Office of the Staff Services Division. In the fall of 1989, she transferred to the Reactor Division, where she was secretary of the Reactor Safety Evaluation Group. In 1996, Spara's duties expanded to include the Regulatory Compliance Group, as well.

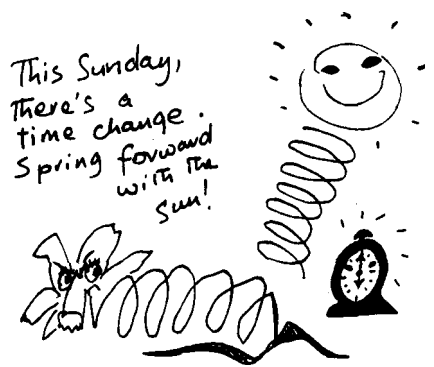
Ray Karol, who was Spara's supervisor, said that her illness had kept her out of work for some time and that she is missed by all her co-workers.

Judith Spara is survived by her son Craig, of Sound Beach, and by a sister.



Come Celebrate Records Management

How important is it to be able to retrieve your data — in record time? To celebrate National Records and Information Management Week, on Tuesday, April 7, from 11:30 a.m. to 1:30 p.m., you are invited to visit the BNL Records Management team in Berkner Hall to learn more about records and information management.





Gospel Tomorrow Night!



As this poster created by BNL's Ripp Bowman indicates, if you come to the Gospel Extravaganza tomorrow night, Saturday, April 4, at 7 p.m., in Berkner Hall, you'll enjoy wonderful entertainment. Tickets are on sale now at \$10 for adults, \$6 for children under 12, at the BERA Sales Office, Ext. 3347, in Berkner Hall, 9 a.m.-1:30 p.m. Tickets will also be sold at the door, if any remain.

Pick a Student

From now until Friday, April 10, completed applications for the Energy Research Undergraduate Laboratory Fellowship (ERULF) Program, offered by the U.S. Department of Energy and formerly the BNL Summer Student Program, will be available for review on an electronic database. Obtain address and passwords from the Office of Educational Programs (OEP), Ext. 4503, or get more information from your departmental education coordinator.

In the ERULF program at BNL, freshmen to senior undergraduates will receive ten-week summer research appointments, from June 8 through August 14. OEP will pay for the student's round-trip travel and stipend of \$300 per week. The sponsoring department will pay weekly housing costs of \$108.50.

Coming Up

At the next BERA concert, which will be held on Thursday, April 16, at 8 p.m., in Berkner Hall, the Graduate Trio — violinist Anne-Marie Hoffman, cellist Jeremy Hake and pianist Vivian Wai Cheng — three graduate students from the State University of New York at Stony Brook, will present Franz Schubert's Piano Trio in E-Flat Major, Op. 100, and Maurice Ravel's Piano Trio in A Minor. The concert is free and open to all, however, donations to help fund future events will be gratefully accepted.

Art, Flowers Bus Trip

To see state-of-the-art art and cutting-edge flowers, you don't have to go far. Join the Art Society's Saturday, May 2, bus trip to enjoy masterworks of Gustave Courbet and Marc Chagall at the Nassau Museum of Art, the cherry-blossom festival at Brooklyn Botanical Gardens, and the watercolors of Winslow Homer and John Singer Sargent at the Brooklyn Museum.

Leaving BNL at 8:30 a.m. the bus will make a coffee stop, then go to Nassau's art museum, a Roslyn Harbor mansion on grounds set with sculpture. After seeing the dual exhibit of Courbet, a realistic painter whose innovative vision helped hasten the impressionistic movement, and Chagall, whose delicate, powerful fantasies and vibrant colors linger in the imagination, the group will go on to Brooklyn, arriving at about 1:30 p.m.

In the gardens, cherry blossoms are expected, but if they've come and gone, many other blooms, herbs and flowering trees will be at their peak. Both in the gardens and in the museum next door, meals and snacks are available, or you can bring your own.

At the celebrated Brooklyn Museum of Art, you can appreciate the brilliant watercolor technique of Homer and Sargent, the renowned Asian and African collections and works by European and American artists.

The bus will leave Brooklyn at 7 p.m., returning to BNL by about 8:30 p.m. Seats on the bus-with-bathroom cost \$19, the Nassau Art Museum is \$5 (\$4 for seniors), the Brooklyn Museum is \$4, and the gardens, which are free, accept donations at the gate.

For reservations, contact Liz Seubert, Ext. 2346 or 286-8563, or e-mail lseubert@bnl.gov.

BERA Returns to Disney World



Join our employee group trip to



It's time to sign up for the eighth annual group trip to Walt Disney World in Florida, which now features a new, special attraction — Animal Kingdom. Sponsored by the Brookhaven Employees Recreation Association (BERA), the seven-day, six-night trip is scheduled from Thursday, October 22, through Wednesday, October 28. The trip is open to BNL and BSA employees, guests, on-site contractors, and their families.

The discounted group-package rates per person are as follows:

4 adults/rm.	\$1,073	junior age 10-17*	\$606
3 adults/rm.	\$1,172	child age 3-9*	\$522
2 adults/rm.	\$1,372	child under 3**	\$207
1 adult/rm.	\$2,138		

\*Rates for ages 3-17 are applicable only when children occupy room with adult(s); maximum five per room, six with child under 3.

\*\*No hotel charge, but full airfare is required.

Included in the rates are:

- Round-trip, nonstop flight between Islip and Orlando;
- Round-trip transportation between Orlando airport and the hotel;
- Baggage handling;
- Six nights at Disney's Polynesian Resort;
- Seven days unlimited transportation within the Walt Disney World Resort;
- Unlimited admission and use of attractions at the Magic Kingdom, Epcot, Disney-MGM Studios Theme Park, Typhoon Lagoon, Blizzard Beach, Animal Kingdom, Pleasure Island, River Country and Discovery Island;
- One breakfast or lunch at a Walt Disney World dining location, including a Character breakfast;
- One dinner at a Walt Disney World dining location, including dinner shows;
- One copy per room of Steve Birnbaum's Official Guide to Walt Disney World.

Stop in to see BERA's Disney family collage from previous years and to reserve your space, first-come, first-served, with Recreation Supervisor M. Kay Dellimore, Ext. 2873, Human Resources Division, Bldg. 185. A deposit of \$150 per person is required.

For more information, call Dellimore, Ext. 2873, or Andrea Dehler, Ext. 3347.

Reminder: Register Your Vehicle Now

All employees and Laboratory guests who have not already obtained a current, red registration sticker for 1998 or 1999 for the private motor vehicles that they use on site must register or renew their registration with BNL's Police Group.

The sticker must be affixed to the windshield side of the interior rear-view mirror so that it is visible from the front of your vehicle.

To obtain a sticker, come to the Personnel & Information Security Office in the Brookhaven Center, Bldg. 30, weekdays during usual business hours. For more information, call Hank Raimondo, Ext. 7258.

Railroad St. Detour

Next week, from Wednesday through Friday, April 8-10, Railroad Street between Rutherford Drive and East Fifth Avenue will be closed to traffic due to construction of upgrades to the sewer system. The detour route will be along Rutherford Drive, Thompson Road and East Fifth Avenue. This closing also concerns walkers and joggers, who are asked to avoid the area for their own safety.

CIGNA ID Pickup

All employees who are enrolled in the CIGNA medical plan and who have not yet picked up a CIGNA identification card may do so at the Benefits Office in the Human Resources Division, Bldg. 185, any Monday through Thursday, 8:30 a.m. to 1 p.m.

Leisure Time For Leisure Travel

The Omega Leisure Travel Office in Berkner Hall will be closed for vacation Thursday through Wednesday, April 9-15. Until the office reopens on Thursday, April 16, new reservations will be handled through the New York office, (212)753-4900. For more information, call Carol Mancuso, Ext. 5918.

Retirement Counseling

A TIAA-CREF representative will visit the Lab on two Tuesdays, May 5 and 12, to answer BNL employees' questions regarding the TIAA-CREF retirement plan in one-on-one counseling sessions. Questions employees might have include:

- What are the differences between TIAA and CREF?
- How should I allocate my money between TIAA and CREF?
- What are my retirement options?

A limited number of 45-minute appointments are available; to arrange one, call Valerie James, (800) 842-2011.

Corrections

Regarding the Brookhaven Bulletin of March 27, 1998, please note:

- The listing of "BNLers to Speak at ACS Meeting," which appeared on page 3, inadvertently omitted Richard Ferrieri who addressed the American Chemical Society on "Stereoorganic Hot-Atom Chemistry, From Past Models to Present Perceptions."
- The article on the party for Peter Bond and Michael Bebon, which was called "An Event to Remember" and ran on page 4, incorrectly identified the "BNL bagpiper-in-residence." He is John Keane, who works in the National Synchrotron Light Source Department.

BROOKHAVEN BULLETIN

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

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World Wide Web:  
http://www.pubaf.bnl.gov/bulletin.html

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



BNLers Help Public TV

On March 12, a group of BNLers volunteered their entire evening to take pledge calls at Long Island's public television station, WLIW-TV. Besides having a great time and learning how to spell lots of Polish names (a Polish-American show aired that night), the group helped show that BNL employees are committed to good causes.

The volunteers were:

Mike Bebon	Elaine Lowenstein	Susan Sears
Sue Cataldo	Andy Marr	Trevor Sears
Gail Donoghue	Noreen Michelson	Arnie Stillman
Ruth Fernow	Eileen Morello	Bente Videbaek
Chris Fockenberg	Pat Moylan	Kara Villamil
Peter Genzer	Carol Otto	Peggy Von Achen
Cathy Green	Sue Perino	Peggy Woody

Computer Training

Some seats are still available in the following classes to be offered by the Computing & Communication Division in April and May:

Date	Class
4/14	Microsoft Outlook
4/16 & 17	ACCESS, beginner
4/23	HTML programming, intro.
5/6	Word, intermediate
5/8	Windows 95, beginner
5/18 & 20	ACCESS, intermediate
5/19	EXCEL, intermediate
5/21	Word, beginner

To register for these classes, or to view the catalog for other available courses, contact your department or division training coordinator. To register your interest in future classes, you must submit a completed training request form, and you will be placed on a waiting list. All classes are scheduled based on the number of requests received. For more information, call Pam Mansfield, Ext. 7286.

Bowling

Week of March 23

Red & Green League

R. Mulderig Sr. 214/212, E. Meier 208/205, R. Raynis 225, J. Griffin 224, G. Mack 220, J. LaBounty 215, K. Koebel 212, J. Giuffre 210, K. Asselta 207, L. Mulderig 203, W. Powell 202, O. Mirjah 201, R. Mulderig Jr. 200.

Purple & White League

R. Eggert 280/254/204/738 scratch series, G. Mehl 202/198/193, L. Simes 231/191, R. Mulderig 221/202, R. Koebel 223/189/172, T. Dilgen 189/182, J. Pinelli 190, K. Koebel 214, L. Mulderig 189, D. Keating 178, M. DiMaiuta 176, M. Picinich 175, K. Eggert 171, M. Addressi 170.

Volleyball

Standings as of March 27

League I	League III
Bikers & Spikers	60-12 Silver Bullets 45-9
Set to Kill	44-28 Group Sets 41-13
Scared Hitless	38-34 Just 4 Fun 29-25
RudeDogs	37-35 Upton Ups 28-26
ReTurners	1-71 Six Samurai 23-31
League II	Just In Time 16-38
Safe Sets	49-11 NWO 7-47
Spiked Jello	45-15
Monday Nite Live	41-19
Jao-About-That	34-26 Spikers 51-21
Undecided	31-29 Shank,Carry&Throw 42-30
Nuts & Bolts	23-37 Death Volley 32-40
Fossils	15-45 Pass, Set & Crush 28-44
Setups	2-58 Far Side 27-45

APS Editorial Positions

The American Physical Society (APS) has the following **two editorial positions** available for people with a broad interest in physics who are ready to start nontraditional careers in physics. Essential to both positions are a basic understanding of the working scientist's expectations of the editorial process, as well as excellent written and verbal communication skills.

APS is an equal opportunity employer offering a competitive salary, career stability and an outstanding benefits package. For more information visit the APS website at [www.aps.org](http://www.aps.org).

*To be considered*, send a cover letter and resume, including references, current salary and requirements to Joseph Ignacio, Personnel Manager, APS, One Research Road, Box 9000, Ridge NY 11961; fax (516) 591-4155, or e-mail [personnel@aps.org](mailto:personnel@aps.org).  
• **Physical Review Letters** has an opening for a Ph.D. scientist. Responsibilities will involve assisting in all phases of the peer-review process. Postdoctoral research experience is desirable. This is an entry-level position that will be available September 1, but other starting dates will be considered.

• For two journals — **Physical Review A** and **Physical Review E** — APS seeks a scientist, preferably a Ph.D. Responsibilities will include participating in all phases of manuscript selection, playing a leadership role within the editorial staff in the development of a more electronic review process and assisting in the management of editorial operations. Will work both independently and in coordination with remote editors on manuscripts and, if appropriate, might serve as primary editor for some subject area(s). Should have decision-making ability, self-motivation, flexibility and good organizational skills. Helpful attributes are: administrative or managerial background, and knowledge of electronic publishing or experience with Internet and World Wide Web applications.

Physics Grad Students: Pizza Social April 8

On Wednesday, April 8, at 5:30 p.m., physics graduate students and postdocs are all invited to a Just Pizza Social in the Physics Department's large seminar room lounge, Bldg. 510. Pies will be r<sup>2</sup> and more!

Arrivals & Departures

Arrivals
Ivan Rostov.....Chemistry
Departures
This list includes all employees who have terminated from the Lab, including retirees:
Robert E. Meier.....AGS
Mircea Popeanos.....AGS
Matthew Randesi.....Biology

Classified Advertisements

Placement Notices

The Laboratory's placement policy is to select the best-qualified candidate for an available position. Candidates are considered 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, disability or veteran status.

Each week, the Human Resources Division lists new placement notices, first, so employees may request consideration for themselves, and, second, for 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; call the JOBLINE, Ext. 7744 (344-7744), for a complete list of all job openings; use a TDD system to access job information by calling (516) 344-6018; or access current job openings on the World Wide Web at <http://www.bnl.gov/JOBS/jobs.html>.

*The following vacancies are exempt from the Director's hiring freeze.*

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

DD7345. TECHNICAL POSITION - (term appointment) Requires AAS in electromechanical technology or equivalent experience, and experience in mechanical and electronic construction techniques. Knowledge of relevant engineering practices is also required, as is the ability to work from prints, sketches and verbal instructions. Will assist in the construction of water-cooled electronic racks for the PHENIX Detector. Relativistic Heavy Ion Collider Project.

DD7562. BIOLOGY ASSOCIATE POSITION - (term appointment) Requires a BS degree in biology or biochemistry and demonstrated technical competence and practical experience in all aspects of recombinant techniques involving nucleic acids, molecular cloning, DNA sequencing and site-specific mutagenesis. Familiarity with protein expression and protein purification techniques desirable. Computer skill also desired. Biology Department.

DD4515. TECHNICAL POSITION - Requires BSET or equivalent and a thorough knowledge of digital-logic concepts. Familiarity with high-speed analog circuitry and rf techniques is desirable. Requires the ability to use various types of test equipment and to work from schematics, rough sketches and verbal instructions. Work involves the construction of prototypes through final testing and installation, as well as diagnostics and controls instrumentation. (reposting) National Synchrotron Light Source Department.

DD7465. TECHNICAL POSITION - Requires BSET or equivalent, knowledge of small-signal analog and mixed-signal electronics and the ability to work under minimal supervision. Familiarity with a variety of test equipment and experience with electronic assembly are necessary. Responsibilities will include working directly with engineering and scientific staff in the design, fabrication and maintenance of synchrotron beamline instrumentation. (reposting) National Synchrotron Light Source Department.

NS7564. COMPUTER ANALYST POSITION - (term appointment) Requires an MS degree or equivalent experience in computing or related field and at least five years' experience with software engineering and/or information management technology in a production environment. Practical knowledge of UNIX and Windows NT operating systems, TCP/IP networking, WWW, C or C++ is essential. Experience with distributed computing, especially CORBA-2, modern database technology, work-flow management and/or business process re-engineering methodology is desirable. Responsibilities include the supervision of four or five programmers with the main task of further development and maintenance of a stable, well-defined UNIX- and NT-based intranet computing environment for advanced information-management application and the support of internet information services, as well as enforcing a "good software engineering practice" in an open-minded and enthusiastic interdisciplinary environment. The computing group also provides support for the operations of the Protein Data Bank database and the work of about three to five archivists and administrative staff, as well as database access services to a worldwide community. Biology Department.

NS7568. COMPUTER ANALYST POSITION - (part-time, term position) Requires bachelor's degree in an appropriate discipline and at least five years' experience managing a DEC-ALPHA computing facility. Familiarity with Windows-NT operating system, knowledge of WEB access to nuclear databases, knowledge of low-energy nuclear physics databases, and record of exploring and implementing new software technologies are necessary. Department of Advanced Technology.