

South African Students Stop at BNL While on ATLAS, Open Science Grid Trip

Mustard-yellow blotches decorate world maps hanging in the BNL physics building, indicating the countries taking part in one of the largest collaborations in particle physics history. On the map for ATLAS, an experiment at the world's soon-to-be most powerful particle accelerator, the Large Hadron Collider (LHC), one continent remains especially mark-free — Africa. Leaders of ATLAS (which stands for A Toroidal LHC Apparatus) are trying to change that through a variety of outreach methods, including hosting a recent visit by three South African students to BNL and other LHC-collaborating institutions across the nation.

For the last part of a 10-day trip to the United States, University of Witwatersrand graduate students Claire Lee, Norman Ives, and Martin Cook stopped at Brookhaven to learn about ATLAS and the Open Science Grid (OSG), a distributed computing infrastructure that will help researchers from around the world store, access, and analyze the huge amount of data produced at the LHC.

"Prior to this trip, all we really knew about the Grid is that it's a bunch of computers put together," Cook said.

The graduates' knowledge was greatly expanded after attending an OSG workshop in Nebraska, and taking tours and tutorials at Fermi National Accelerator Laboratory, the University of Chicago, and BNL, which is the host for more than 30 U.S. institutions contributing to the



Front, from left are: University of Witwatersrand graduate students Martin Cook, Norman Ives, and Claire Lee. Standing, from left, are: Howard Gordon, BNL's Associate Chair for High Energy Physics and Head of the U.S. ATLAS Management Office; Jeremy Dodd, Nevis Laboratories, Columbia University; Ketevi Assamagan, BNL Physics Department; and Mike Tuts, Columbia and U.S. ATLAS Research Program Manager.

in this massive collaboration," Assamagan said. "We want them to find some specialty that will make them visible."

More than 160 institutions from 35 countries are involved in building, installing, and commissioning parts of ATLAS. So far, that list includes just one African country — Morocco.

"It's striking to look at the map and see this big gap over Africa," Dodd said. "We're hoping the University of Witwatersrand is a step toward changing that."

Funding for the students' trip was provided by the OSG and the University of Witwatersrand.

— Kendra Snyder

Martin Blume Honored With Emeritus Title

Martin Blume, BNL's former Deputy Director, has been named Senior Physicist Emeritus. The Emeritus title is reserved for retired scientists with at least ten years of service to BNL who have made particularly noteworthy contributions to the Lab and who will continue their involvement in research, Lab affairs, or in the affairs of the scientific community.

Blume had started his career at BNL in 1962 as an associate physicist and retired in 2003 as a distinguished theoretical physicist with numerous awards for his research, and with many years as a successful administrator who helped BNL to remain a world-class center for science. In 1996 he took a leave of absence from the Lab to become Editor-in-Chief of the American Physical Society, with responsibility for all the *Physical Review* journals, and served two five-year terms in that position.

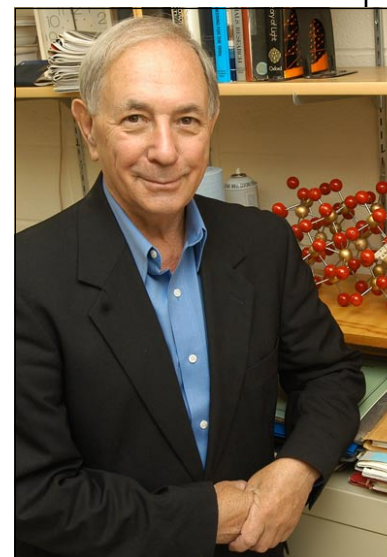
"I am pleased to receive this title," Blume said. "It means that I will be able to continue to carry out research, to serve on various science-policy committees and boards at Brookhaven and elsewhere, and act as a mentor for junior staff."

Blume recalled that he was happiest at BNL in his early days. "When I first came to the Laboratory I had nothing to do but my research," he said. "All of the headaches of an administrator were borne by others, and I was completely unaware of them. When I became an administrator, I learned of those headaches, and 95 percent of my major accomplishments consisted of preventing bad things from happening."

Of his positive administrative accomplishments, Blume said he was most proud of obtaining funds for the design and building of the National Synchrotron Light Source (NSLS). He was Chair of the working group that promoted the project in the mid-1970s, and he developed the diverse user community and scientific program at the facility. In fact, Blume said, he even invented the term "light source," which is now used to identify many synchrotron radiation sources throughout the world.

Blume received DOE's E.O. Lawrence Award in 1981 for his research in physics and for his role at the NSLS. He was cited for his contributions to the theoretical analysis of magnetic

(continued on page 2)



Martin Blume

Joseph Rubino 02180807

BNL Scientists Propose Ways to Make New Materials for 'Spintronic' Devices Patent application filed, available for licensing

An interdisciplinary group of BNL scientists has devised methods to make a new class of electronic devices based on a property of electrons known as "spin," rather than merely their electric charge. This approach, dubbed spintronics, essentially emerged in the last decade. It is now an intensely researched field, because although current electronic devices have been getting ever smaller and thus more efficient, miniaturization is almost at its technical limits. Spintronics could open the way to a dramatic increase in the productivity of electronic devices operating at the nanoscale — on the order of billionths of a meter.

In work funded by the Office of Basic Energy Sciences and the Office of Nuclear Physics, both within DOE's Office of Science, Igor Zaliznyak of the Condensed Matter Physics & Materials Science Department (CMPMS), Dmitri Kharzeev of the Physics Department, and Alexei Tselvik of CMPMS combined spintronics with another emerging research approach: graphene-based electronics.



(From left) Alexei Tselvik, Dmitri Kharzeev, and Igor Zaliznyak

They found that certain properties of electrons in graphene — a single sheet of crystalline carbon — can be utilized to create novel graphene-based multilayer spintronic devices, opening new ways to manipulate the properties of the material. A U.S. provisional patent application for this invention was filed, which is now available for licensing.

"This development can open

the way for the use of spintronics in practical room-temperature devices, an exciting prospect," said DOE Under Secretary for Science Raymond Orbach. "The interplay between outstanding facilities and laboratory researchers is a root cause for this achievement, and a direct consequence of the collaborative transformational research that takes place in our DOE laboratories."

To start their research on spintronics and graphene, Zaliznyak's team explored ways to take advantage of the graphene electron's "quantum spin" in addition to its electric charge. Electrons are tiny, spinning particles with a negative charge that are found around the nucleus of atoms. The spinning electron's rotation is what is called a "quantum" property — that is, a set amount that

cannot change. By aligning the spins of multiple electrons so they all point the same way, scientists can create a current of spins in addition to a current of charges.

The BNL group uses magnetism to manipulate spin in graphene. They have proposed ways to make materials consisting of layers of graphene mated to magnetic and non-magnetic layers.

"Graphene is unique," Zaliznyak says, "in that an ideally balanced sheet is neither a conductor nor an insulator. Related to this is the fact that electrons in graphene behave in such a way that their mass effectively vanishes!" In other words, he explains, the electrons move without inertia, like rays of light or particles accelerated to relativistic speeds — that is, close to the speed of light.

Such relativistic particles are studied at the Lab at the Relativistic Heavy Ion Collider (RHIC), a nuclear physics facility where scientists are trying to understand the fundamental

(continued on page 2)

Roger Stoutenburgh 02330407

CALENDAR

OF LABORATORY EVENTS

- The BERA Store in Berkner Hall is open weekdays from 9 a.m. to 3 p.m. For more information on BERA events, contact Andrea Dehler, Ext. 3347, or Christine Carter, Ext. 2873.
- Additional information for Hospitality Committee events may be found at the Lollipop House and the laundry in the apartment area.
- The Recreation Building #317 (Rec. Hall) is located in the apartment area.
- Contact names are provided for most events for more information.
- Events flagged with an asterisk (*) have an accompanying story in this week's Bulletin.

— EACH WEEK —

Weekdays: Free English for Speakers Of Other Languages Classes

Beginner, Intermediate, Advanced classes. Various times. All are welcome. Learn English, make friends. See www.bnl.gov/esol/schedule.html for schedule. Jen Lynch, Ext. 4894

Mondays: Playgroup

10 a.m.-noon. Rec. Hall. All welcome.

Mondays: BNL Social & Cultural Club

Noon-1 p.m., Brookhaven Center, South Room, free beginners dance lessons. Rudy Alforque, Ext. 4733, alforque@bnl.gov

Mondays: Pilates

Noon-1 p.m. Rec. Hall. Ext. 5090

Mondays & Wednesdays: Pilates

5:15-6:15 p.m. Rec. Hall. Ext. 5090

Mondays: Jiu Jitsu Club

6:30-7:30 p.m. B'haven Center. All levels, ages 6 & up. \$10/class. Tom, Ext. 4556

Mondays & Thursdays: Kickboxing

\$5 per class. Noon-1 p.m. in the gym. Registration is required. Ext. 8481

Mon., Thurs., & Fri.: Tai Chi

Noon-1 p.m., B'haven Center North Rm. Adam Rusek, Ext. 5830, rusek@bnl.gov

Tue., Thurs. & Fri.: Ving Tsun Kung Fu

Noon-1 p.m., B'haven Center, North Room. Taught by Master William Moy. Scott Bradley, Ext. 5745, bradley@bnl.gov

Tues. & Thurs.: Jazzercise

Noon, Rec. Hall. Ext. 5090.

Tuesdays: Hospitality Coffee

10:30 a.m.-noon, Rec. Hall lounge. All welcome. Ext. 5090

Tuesdays: BNL Music Club

Noon, B'haven Center, North Room. Come hear live music. Joe Vignola, Ext. 3846

Tuesday & Thursday: Aerobic Fitness

5:15 p.m., Rec. Hall. 10 classes for \$40 or \$5 per class. Pat Flood, Ext. 7866, flood@bnl.gov

Tuesday & Thursday: Aqua Aerobics

5:15 p.m., Pool. Ext. 5090

Tuesdays: Toastmasters

1st and 3rd Tuesday of each month, 5:30 p.m., Bldg. 463, Room 160. Guests, visitors always welcome. www.bnl.gov/bera/activities/toastmstrs/

Tue., Wed. & Thu: Rec Hall Activities

5:30-9:30 p.m. General activities, TV, ping pong, chess, games, socializing. Christine Carter, Ext. 5090.

Wednesdays: Ballroom Dance Class

B'haven Center, N. Ballroom. Instructor: Giny Rae. Starts September 12 and 19. Ext. 3845. See notice, page 3

Wednesdays: Weight Watchers

Noon-1 p.m. Michael Thorn, Ext. 8612

Wednesdays: Yoga

Noon-1 p.m., B'haven Center. Free. Ila Campbell, Ext. 2206, ila@bnl.gov

Thursdays: Reiki Healing Class

Noon-1 p.m., Bldg. 211 Conference Rm. Nicole Bernholz, Ext. 2027

Fridays: Family Swim Night

5-8 p.m. BNL Pool. \$5 per family

Fridays: BNL Social & Cultural Club

Noon-1 p.m., B'haven Center, South Room, free beginners dance lessons. 7-11:30 p.m. North Ballroom, Dance Social, workshops. Rudy Alforque, Ext. 4733, alforque@bnl.gov

CIGNA: Tuesdays, Bldg. 400

A CIGNA Healthcare representative will be on site in Human Resources, Bldg. 400, on Tuesdays, to assist with any claims issues that you have been unable to resolve yourself. Janice Petgrave will be available for 30-minute meetings, by appointment only, 10 a.m.-1 p.m. Bring all pertinent documentation. To schedule, call the Benefits Office, Ext. 5126.

Then & Now — Don't Play Safe, Be Safe!

The second issue of Isotopics, the Lab's first newspaper (July-August 1947), published the results of a survey on what employees thought of the first issue. The front-runners in the popularity stakes were: gossip columns and departmental news for 57 of the 122 responding BNLees; sports, which most interested 45 voters; and scientific data for laymen, scientists' biographies, and cartoons, which all tied with 20 votes. Other items in the paper were also-rans.

So it is not surprising that in the 1940s through the 1960s, reminders to "Work Safe" often came in the form of a cartoon in Isotopics and in the Bulletin Board that took over as the Lab newspaper. The cartoons were most often supplied by the National Safety Council, with a caption added by Lab staff on how BNL accidents stacked up against the national average.

By the 1970s, the Brookhaven Bulletin was settled as a four-page 11-by-17-inch paper, blooming with lively photos of Lab events. Then as now, the subject of safety was high on the list of messages given to readers. In May 14, 1970, an eye-catching photo of David Christman of the Chemistry Department drew attention to an award he had won for wearing the safety glasses that had saved him from grave injury when a glass tube exploded nearby. In June of the same year, in a full page of photos of an Alternating Gradient Synchrotron upgrade, one photo could have been printed any time and especially in the past few years: two employees engaged in pulling control cables into place "discuss splicing and checking before work proceeds." Planning is a major first step to any work, and BNL's present Standards Based Management System (SBMS) is key to that planning. SBMS on line, with procedures for every contingency, is one of the modern amenities that the Lab has used to the full to spread information on safety.

Another BNL way of bringing safety to the forefront is

Roger Stoutenburgh D1480804

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found in the Bulletin of July 14, 1978. A headline asks, "What's Wrong With These Pictures?" The explanation below the top photo, which had appeared in the paper the week before, shows that BNL readers had recognized and commented that the photographed technician, who was near a machine that used a coiled wire, should have been wearing safety glasses, even though the equipment was not operating.

More recently, in 2005, a series of articles that appeared in the Bulletin took the opposite approach: the photos showed the *correct* way to climb a ladder, coil a cable, or set up

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(Above) In May 1970, David Christman won a Wise Owl Award for wearing safety glasses when a glass tube exploded near his face.

(Left) In May 1970, Russ Pyrus (left) and Ron Dobert are shown discussing splicing and checking control cables that were used in an AGS/Linac upgrade before proceeding with their work.

a workstation so that it is ergonomically beneficial. Another comparatively recent innovation among safety message hot spots is the sign at the main gate, which often carries a reminder of some aspect of safety, sometimes in an apt phrase sent in by an employee.

Early this year, BNL became the first Lab in the DOE complex to earn full registration with the Occupational Health Safety Assessment Series (OHSAS) 18001 standard — a commitment that took extraordinary dedication to safety from both the leaders and the Lab-wide supporters of the achievement. The high standard set by being OHSAS-registered is

(Left) In 2004, Tom Imperial of the Central Fabrication Services Division suspected a strange odor from a gas cylinder he was welding; he stopped work and had it investigated, thus avoiding a potentially serious accident. The cylinder contents later proved to be contaminated.

(Below) This 1978 photo shows technician Bill Lenz near a coiled wire; he would normally have worn safety glasses when the machine was in operation.

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ongoing and revisited by annual reviews; it has become part of BNL culture. Other ways to improve worker safety and work at the Lab are continually explored, for example, the new initiative involving a Human Performance approach that has been introduced in a memo received by all employees last week.

No discussion of the methods by which the Lab now endeavors to "get the safety message across" is complete without a reference to the inventive, humorous, and explicit one-minute safety sections of the Take-5 videos each month, developed by Lab Videographer Alex Reben. Who can forget the view of an office worker dropping a piece of paper and picking it up in the correct manner, accompanied by the sound track of an Olympic weight-lifting commentary; or the series of too many on-site cars not quite stopping at a stop sign; or the awful warning of just how far an unimpeded container of compressed gas might roll if it is improperly handled. These funny and thought-provoking reminders of how to work and play "safe" have the same goal as the cartoon messages of the earliest days — to keep employees well and accident-free at work and home.

— Liz Seubert

Martin Blume (cont'd)

phenomena in neutron scattering and for his work on relaxation — the way a system reaches equilibrium — and critical phenomena, the physical properties of liquids and gases at the critical point in which two phases become one.

In 2003, Blume; Doon Gibbs, currently BNL Deputy Director for Science and Technology; Denis McWhan, currently a BNL retiree; and Kazumichi Namikawa of Gakugei University in Japan received the Advanced Photon Source Users Committee Arthur H. Compton Award. They were cited "for theoretical and experimental work in resonant magnetic x-ray scattering, which has led to important application in condensed matter physics." Blume predicted resonant magnetic x-ray scattering in 1983, and today every major synchrotron in the world, including the NSLS, uses the technique for the study of magnetic structure and magnetic properties of matter.

Currently, Blume is continuing his research on x-ray scattering, an important topic

at BNL since it is related to the functioning of both the NSLS and NSLS-II, and relaxation, an area of basic physics that is still of interest to physicists. He will also continue to serve on numerous DOE, laboratory, and university committees.

— Diane Greenberg
For more details on Martin Blume's biography, see www.bnl.gov/today/story.asp?ITEM_NO=332.

Spintronic Devices (cont'd)

properties and forces of matter. RHIC theoretical physicist Dmitri Kharzeev and condensed matter physicist Alexei Tsvetlik have collaborated with Zaliznyak to gain a better understanding of the physics of magnetized graphene.

"Unifying the pool of knowledge and ideas of two fields is a great advantage for building the theoretical foundation for future devices," Zaliznyak said. The patent application filed by the BNL scientists, which puts graphene-magnet multilayers to work, leverages the large amount of scientific knowledge accumulated in both fields into develop-

ing a novel technology. Plus, the opportunity to study relativistic particles in two dimensions — on flat sheets of graphene — was an unexpected and useful arena for the Lab's nuclear physicists trying to understand the properties of the matter produced at RHIC.

Other advantages of the graphene-magnet multilayers are that they are expected to retain their properties at room temperature. Eventually, they could be used to create a full spectrum of spintronic devices, including (re-)writable microchips, transistors, logic gates, and more. Using magnetism for spin manipulation also opens exciting possibilities for creating active, re-writable and reconfigurable devices whose function changes depending on the magnetization pattern written on the magnetic medium.

The inventors have recently joined with their colleagues from CMPMSD and the Center for Functional Nanomaterials and obtained seed funding for FY08 from the BNL Technology Maturation Program that will support initial research in properties of nanoscale graphene-magnet heterostructures and allow doing some feasibility

studies and possible prototype technology development.

"At that stage," said Zaliznyak, "we could indeed be making the new materials at BNL using our new methods."

The patent application covers the methods for making the graphene-magnet multilayers (GMMs), methods of using the GMMs, methods of magnetizing the GMMs, methods for measuring spintronic "current" in GMMs, and the spintronic devices made from GMMs. For licensing information, contact Kimberley Elcess (631) 344-4151, elcess@bnl.gov.

— Karen McNulty Walsh

Arrivals & Departures

— Arrivals —	
Fernando Camino.....	CFN
Frank Nemeth.....	P&PM
Om Singh.....	NSLS-II
James Smart, Jr. ...	LS Directorate
— Departures —	
Paul Montanez.....	NSLS

Can You Spare a Can?

Please remember to bring in canned food for the BNL Food Drive: special bins are at the door in most buildings.

**BSA Noon Recital, 9/12
Sher To Perform**

Internationally renowned cellist Richard Sher will appear in concert on Wednesday, September 12, at noon in Berkner Hall. He will play works by Bach, Schumann and others for solo and accompanied cello. A founding member of the Cambridge Chamber Players in Massachusetts, Sher has performed in Berlin's Hochschule, London's Wigmore Hall, and Vienna's Beethovensaal, and widely in the U.S. A scheduling conflict has prevented previously billed pianist Marta Felcman from being able to appear.

Sponsored by BSA, the company that manages BNL, the concert is free and open to the public. All visitors to the Lab age 16 and over must bring a photo ID.



Benefits Office Reminder: Proof of Student Status

All medical/dental plan participants are reminded to submit updated proof of student status to the Benefits Office, Bldg. 400B, for the upcoming college semester. The Benefits Office will submit this to the insurance company on your behalf. Proof of student status must be in writing from the college or university and include:

- Dependent name
- Name of college/university
- Semester for which the child is attending
- Indication of full-time status (usually at least 12 credits for undergraduate programs)

For a child over age 19 to be eligible for benefits, he or she must be unmarried, a full-time student attending an accredited college or university and primarily supported by you. Dependent children who meet these criteria may be covered until the end of the year in which age 23 is attained.

Employees covering dependent children over the age of 19 as full time students should be aware that full time students are only covered in between semesters if the student attends classes on a full-time basis for both the Spring and Fall semesters. Otherwise coverage ends on the last day the child attended an accredited college or university on a full-time basis. If there is a possibility that the child may not be in full-time attendance in the Fall, please contact the Benefits Office immediately to discuss continuation of benefits through COBRA.

You must notify the Benefits Office if you have dependents on your coverage that do not meet the above criteria. These dependents may be eligible for COBRA benefits. For more information, call the Benefits Office, Ext. 2877 or 5126.

One-on-One Retirement Counseling

A TIAA-CREF consultant will visit BNL on Thursday, 9/6, Thursday, 9/13, Tuesday, 9/18, and Thursday, 9/27 to answer employees' questions about their financial matters. The consultant will help you: understand the importance of protecting assets against inflation, find the right allocation mix for you, learn about TIAA-CREF retirement income flexibility, compare lifetime income vs. cash withdrawal options. For an appointment, call Suzanne Leone, (866) 842-2053, Ext. 4601.

**Ballroom Dance Lessons Begin, 9/12
Special Beginner Only Class Begins 9/19**

Two new seven-week sessions of weekly ballroom dance lessons, sponsored by the BNL Ballroom Dance Club and given by instructor Giny Rae at \$35 per person for each session, will start on Wednesday, 9/12. Beginner/intermediate rumba lessons will be held 6-7 p.m. and intermediate waltz will be held 7-8 p.m.

In addition, a six-week beginner only class (three weeks each of cha-cha and swing) will begin on Wednesday, 9/19, 5:15- 6 p.m. If you have never danced before, this is the perfect place to start. The cost is \$30.

All classes will be held at the North Ballroom of the Brookhaven Center. Lessons are open to all BERA members: BNL employees, retirees, official BNL visitors and their immediate families (spouse and children). Each BERA member may bring one guest.

For more information contact: Arup Ghosh, Ext. 3974; Vinita Ghosh, Ext. 6226; Donna Grabowski, Ext. 2720; Gail Donoghue, Ext. 2838; or Kathleen Tuohy, Ext. 3845.

BNL Retired Employees Meeting, 9/11

Brookhaven Retired Employees Association (BREA) has business meetings at noon on the second Tuesday of every month, usually in one of the meeting rooms of Berkner Hall. The next meeting is scheduled for Tuesday, September 11, and all are welcome. The meeting is open to all BNL retirees as well as those who are contemplating retirement soon.

In addition to business meetings, BREA has a full calendar of social and informational events of particular interest to seniors and retirees. For example, the June 2007 BREA Get-Together Luncheon at the Bellport Country Club, organized by Co-chairs Flo O'Brien and Harriet Martin, was a great success. If any attendees have pictures they would like to have posted, send them to Paul Michael (pmichael@bnl.gov), preferably in computer compatible format; though prints can also be scanned. For more information on BREA, its activities, and membership, see www.brea.bnl.gov. — Liz Seubert



(Above) The 2007 BREA Get-Together Lunch committee were: (from left) Alyce Daly, Caroline Kramer, Co-Chair Flo O'Brien, Ronnie Evans, Co-Chair Harriet Martin, and Renée Flack.



(Above) BNL's singer-soloist Yvette Malavet-Blum (center) and pianist Robert Boutcher (right) gave a much appreciated performance at the BREA luncheon.



(Right) Some of the many retirees who enjoyed the 2007 BREA luncheon party

Walkers Wanted for Cancer Research Walk

The annual Walk for Beauty, Walk for Life will be held on Sunday, September 30. The 4/6 kilometer walk through scenic, historic areas of Stony Brook Village raises funds for breast and prostate cancer research at Stony Brook University. BNL has been a sponsor and active participant in the Walk for many years.

BNL would once again like to gather a team to support this great event. A brochure with the registration form, walker sponsor sheet, and driving directions is available at www.bnl.gov/diversity/womansPrograms/default.asp#Walk_for_Beauty or by contacting Joyce Fortunato, Ext. 4229 or mortimer@bnl.gov, or Stasia Ann Scocca, Ext. 3979 or scocca@bnl.gov.

All participants are responsible for their registration and fee of \$20 or sponsorship. If you have any questions or would like to help, contact Fortunato or Scocca.

Concert: Commander Cody, Professor 'Louie,' 9/15

On Saturday, September 15, at 8 p.m. in Berkner Hall, Commander Cody and his Band will perform. Cody, whose first great hits included "Hot Rod Lincoln" in 1972, played at that time along with the Eagles, the Doors, and the Grateful Dead. He and his band will be joined on stage by Professor "Louie" and the Crowmatix — country, folk, and rock and roll. Sponsored by the BNL Music Club, the event is open to the public. Buy tickets at \$25 each at the BERA Store or at the door the night of the show. Visitors to the Lab age 16 and over must bring a photo ID.

BERA News, Events

All BERA trips listed below must have prepaid, non-refundable reservations made at the BERA Store, Berkner Hall, open weekdays, 9 a.m.-3 p.m., Ext. 3347. Buses depart from the Brookhaven Center.

- **The School Supply Drive:** Drop new items off at the BERA Store.
- **Applications are being accepted for the Upton Nursery School** for 3-and 4-year olds, see www.bnl.gov/nurseryschool/
- **Hospitality Welcome Meetings** begin on 9/11 and will continue each Tuesday from 10:30 a.m. in the Rec Hall. Drink coffee, make friends.
- **Tony Bennett** at Radio City Music Hall – Sat., 9/8 - 8 p.m. show. \$60 for 3rd Mezzanine. Dep. Lab, 3:30 p.m. – Dep. NYC, 10 p.m.
- **Army Football** at Westpoint - Sat., 9/8. \$55 ea. - Tailgate party included. Full hot buffet, dessert, coffee. BYOB & chairs. Dep. Lab, 7 a.m. – Dep. Westpoint, 5 p.m.
- **Cabela's Hunting Store, Hamburg, PA** – Sat., 9/15. \$20 ea. Dep. Lab 7 a.m. – Dep. Cabela's, 5 p.m.
- **Bear Mountain Oktoberfest** – Sat., 10/6. 2 buses available. \$10 ea. Dep. Lab, 8:30 a.m. – Dep. Bear Mtn., 4:30 p.m.
- **Renoir Landscapes 1865-1883**, at Philadelphia Museum of Art - Sat., 10/13. \$35 ea. Dep. Lab, 7:30 a.m. – Dep. Philadelphia, 4 p.m.

Get Fit!

Advance registration is needed for the following classes. Make checks to BERA, send to: Recreation Office, Bldg. 400. All classes are 8-week sessions. **Aqua Aerobics** - \$20/once a week, \$40/twice a week, Tues. from 9/11 & Thurs. from 9/13, 5:15-6:15 p.m. at the Lab pool. **Jazzercise** - twice a week, \$90, plus you may use the Shirley location. Tues. from 9/11 & Thurs. from 9/13, noon - 1 p.m., Rec Hall. **Pilates** - \$65/once a week, \$80/twice a week, and \$130/3 times. Mons. from 9/10 & Weds. from 9/12, 5:15 – 6:15 p.m., Mons. at noon, from 9/10. All at Rec Hall, Bldg 317. **"Old School" Gym Class** – \$30, Thursdays from 9/20-11/8, 5:15 p.m. Old fashioned games, activities, calisthenics & fun ways to exercise.

CALENDAR

— THIS WEEKEND —

Friday, 8/31

Yankees vs. Tampa Bay
4 p.m. Brookhaven Center. Bus leaves for Yankee Stadium, departs for BNL after the game or 11 p.m. All are welcome. Tickets are \$44 each, Tier Box. Make paid reservations at the BERA Store, weekdays, 9 a.m.-3 p.m. Tickets are non-refundable.

— WEEK OF 9/3 —

Mon. & Tues., 9/3 & 4

Holiday, Lab Closed
On Monday, 9/3, and Tuesday, 9/4, the Lab will close for the Labor Day holiday and a floating day holiday. No Bulletin will appear on Friday, 9/7.

Thursday, 9/6

Demos of Latest GIS, CAD Plotting
11 a.m.-2 p.m. Berkner Hall Lobby. Eberhard Systems, L.I.'s original AutoCAD dealer for 25 years and a premier VIP Platinum Hewlett Packard dealer, will demonstrate the latest in GIS and CAD plotting with the all-new T1100 and the Z6100. Stop by to speak to professionals about your plotting and CAD needs. For more information, contact Jeff Giodano, 862-1192.

— WEEK OF 9/10 —

Wednesday, 9/12

***BSA Noon Recital: Richard Sher**
Noon. Berkner Hall. Internationally renowned cellist Richard Sher will appear in concert. The event is free and open to the public. All visitors to the Lab age 16 and over must bring a photo ID.

Thursday, 9/13

***Blood Drive**
9:30 a.m.-3 p.m. Brookhaven Center. Your gift of life is greatly needed. To make an appointment, go to www.bnl.gov/HR/BloodDrive. For more information, see story, page 4.

Saturday, 9/15

***Cody, 'Louie' in Concert**
8 p.m. Berkner Hall. Commander Cody and his Band, and Professor "Louie" and the Crowmatix. Sponsored by the BNL Music Club, the event is open to the public. Buy tickets at \$25 each at the BERA Store or at the door on the night of the show. Visitors to the Lab age 16 and over must bring a photo ID.

— WEEK OF 9/24 —

Wednesday, 9/26

Talk on Optimal Sleep
Noon. Berkner Hall, Room B. Sponsored by Employee Assistance Manager Nancy Losinno, Brendan Duffy of the Sleep Disorders Center, St. Charles Hospital, who will talk on "Optimal Sleep: Improving CPAP Compliance for Apnea Sufferers." All are welcome.

427th Brookhaven Lecture
4 p.m. Berkner Hall. Gene-Jack Wang, Medical Department, will talk on addiction and obesity. The talk is free and open to the public. Visitors to the Lab of 16 and over must carry a photo ID.

Sunday, 9/30

***BNL Walks for Cancer Research**
8:30 a.m. Meet at Stony Brook Post Office. "Walk for Beauty, Walk for Life." A BNL team will walk together in aid of research on breast and prostate cancer. See notice on this page and http://www.bnl.gov/diversity/womansPrograms/default.asp#Walk_for_Beauty

Note: This calendar is updated continuously and will appear in the Bulletin whenever space permits. Submissions must be received by the preceding Friday at noon to appear in the following week's Bulletin. Enter information for each event in the order listed above (date, event name, description, and cost) and send it to bulletin@bnl.gov. Write "Bulletin Calendar" in the subject line.

Classified Advertisements

Placement Notices

The Lab's placement policy is to select the best-qualified candidate for an available position. Candidates are considered in the following order: (1) present benefits-eligible employees within the department/division and/or appropriate bargaining unit, with preference for those within the immediate work group; (2) present benefits-eligible 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. Access current job openings on the World Wide Web at www.bnl.gov/HR/jobs/.

LAB RECRUITMENT - Opportunities for Laboratory Employees

RIGGER'S ASSISTANT (term appointment through 8/6/08) - Under general direction, will assist in the preparation for moving a variety of material and objects including heavy and delicate items as required. Duties consist of attaching lifting devices and performing all other associated manual tasks such as jacking, placing rollers, and position. As performance of duties herein necessitates, drives trucks and operates forklifts. Plant Engineering Division. Send Transfer Request to Terrence Buck, Bldg. 400B.

OPEN RECRUITMENT - Opportunities for Lab employees and outside candidates.

MANAGER II (I-11) - Requires a bachelor's degree in computer science, engineering, physics or closely related field. Minimum 12+ years' progressively responsible related work experience including demonstrated leadership in information technology for accelerator systems is required. Strong supervisory or management experience is required, preferably in a schedule-driven project environment. Experience with accelerator automation, control system design and diagnostic design and EPICS highly desirable. Ability to work with others and manage highly creative and independent IT engineers is necessary. Within the NSLS-II Project's Accelerator Systems Division, the successful candidate will build and manage the team engaged in all information technology (IT) aspects of the new accelerator and control systems, including the Injection System, Storage Ring System, Accelerator Physics, Electrical Engineering, and Mechanical Engineering. Responsibilities include the design, development, implementation, and maintenance of integrating current and future applications and technology platforms, evaluating leading edge technologies, and successful resolution of cross-technology and cross-platform issues to meet project requirements. Will work closely with collaborators at other laboratories to ensure hardware selection is limited and can be utilized readily by others. Must regularly resolve the most complex IT issues across multiple vendors and technologies. Candidate will manage integral parts of IT including control systems of high level physics applications and the automation and integration of instrumentation. Position reports to the Division, Director, Accelerator Systems and National Synchrotron Light Source II. Send resume to peterespo@bnl.gov, referring to Position No. PE 4758.

SENIOR TECHNOLOGY ENGINEER (I-8) - Requires a bachelor's degree or equivalent, preferably in computer science or related discipline, and a minimum of 8+ years' experience in providing installation, diagnostic and problem resolution services for LAN and WAN network environments. Experience with major networking operating systems and transport protocols (Cisco IOS, Linux, Solaris, TCP/IP, OSPF, EIGRP) and extensive hands-on experience configuring and installing a wide variety of network hardware and software components (Cisco 6000 series routers, Catalyst switches) required. Demonstrated knowledge of Network Management tools (e.g. Cisco Works) and verifiable proficiency in their use a must, as is hands on experience configuring and managing PIX and Cisco Firewall Service Module technology. Must demonstrate ability to manage VPN, DNS, DHCP functions hands-on, with minimal supervision. The ideal candidate will also have experience designing, installing, and configuring wireless networking solutions, in addition to a demonstrated ability to design networking solutions in complex IT environments. Must be available to perform network maintenance 24x7x365, as required, and be willing to serve as weekend on-call duty network engineer approximately one weekend a month. Information Technology Division. Send resume to morales@bnl.gov, referring to Position No. RM 4706.

ADVANCED TECHNOLOGY ENGINEER (I-7) - Requires a BS degree and/or equivalent work experience and 5+ years' experience in the Information Security field. Requires experience in the configuration and administration in the following areas: Windows,

Unix, Linux, routers and switches, firewalls, proxy servers, web servers. Working knowledge of TCP/IP, packet analysis, SSL, SSH, VPN, PKI and wireless networking as well as experience with network and host-based IDS or IPS applications are required, as well as basic programming/scripting ability in both Windows and Unix/Linux environments. IT auditing experience, including familiarity with NIST/FIPS requirements, general controls, information security, data center (mainframe and client/server) and operational audits, along with application reviews of PeopleSoft systems a plus. Excellent oral and written communication skills are critical. Requires the ability to obtain/maintain a DOE "Q" security clearance. CISSP certified/qualified or ability to work actively towards obtaining the certification required. CISA certification a plus. One or more of the following GIAC Gold certifications a plus: GCFW, GCIA, GCIH, GCWN, GCUX, GSNA, GCFA. Information Technology Division. Send resume to morales@bnl.gov, referring to Position No. RM 4707.

PRINCIPAL TECHNICIAN/RF & POWER SYSTEMS (TW-4) - Requires a BSEET degree or equivalent. Candidate must have a thorough understanding of analog and digital circuitry. Must be able to use standard test equipment and work from schematics and verbal instructions. Experience with high power RF systems, pulsed or Accelerator Magnet Power Supply systems is a plus. Job duties will include the fabrication, testing, installation, troubleshooting, repair and maintenance of RF and Power systems, including off-hour emergency call-in repairs. Assignments will be in the area of responsibility above, with specific application to RF and High Power equipment. All work will be performed in a manner that is consistent with BNL and NSLS safety and quality assurance guidelines and regulations. Responsibilities will include technical support for NSLS operations as a member of the RF and Power Systems Group. National Synchrotron Light Source. Send resume to tbuck@bnl.gov, referring to Position No. TB 3271.

Motor Vehicles & Supplies

05 FORD FOCUS ZX4 SE - 4 cyl, 4 dr, a/t, a/c, p/w, airbags, well maint'd, 48K mi. \$8,900/neg. 917-658-1234.

03 HYUNDAI TIBURON - 6 spd, manual, sports pkg., fully equip., excel. cond., 30K mi. \$11,000/neg. Ext. 5149 or 929-0961.

01 DODGE DURANGO - mint cond., 36K mi. \$13,000. 648-7612 x8410.

00 FORD EXPEDITION - 5.4L, AWD/4wd, tow pkg., rear a/c, leather w/3rd row, cd, rem. start. 133K mi. \$7,750/neg. Ext. 7277.

00 MERCURY ROUSH COUGAR - 6 cyl, 2dr, coupe, all pwr., airbags, leather, cd, cust rims & sound, 55K mi. \$7,495/neg. 901-4756.

98 HONDA CIVIC - 1 owner, manual trans, 38 mpg, mech. excel., some dings. 106K mi. \$3,500/neg. Ext. 4261 or 929-6814.

98 JEEP SAHARA - dkr green/tan, 4.0L auto., ht/st, loaded, extras, never driven snow/beach. 40K mi. \$12,500. 332-0240.

97 FORD 4X4 150 - manuel 5 spd, ac, grt stereo, chrome 17" whls, bed liner tool box, mint. 129K mi. \$4,500/neg. Ext. 8400.

97 NISSAN ALTIMA - grt running, 4cyl, auto, 4dr, a/c, p/w, p/s, am/fm cass, new tires, new batt. 97K mi. \$2,200/neg. 929-5911.

97 SATURN SC2 - 4 cyl, a/c, p/w p/l, well maint'd, runs well. 99K mi. \$3,000/neg. George, 721-7807.

95 GEO PRIZM - runs v.well, 31+ mi/gal, a/t, a/c, p/s, face plate cd/fm, testdrive after 6 pm or wkend. 83K mi. \$2,200/neg. Andy, Ext. 4357.

92 HONDA CIVIC - extensively modified, serious buyers only. 139K mi. Jim, Ext. 7912 or 516-316-6346.

91 MERCEDES BENZ 190E 2.3 L 4CYCL. - fully loaded, excel. cond. in & out, leave msg. 103 mi. \$5,000/neg. John Kuhn, 325-1929.

86 TOYOTA CRESSIDA - 6 cyl., a/t, p/s, p/b, a/c, blk./green, gd. cond., almost new tires. 170K mi. \$1,500. 751-7250.

Furnishings & Appliances

BED - 4 poster, full size, all wood, dark cherry/mahogany, v gd. cond., \$200/neg, cash only. Herman, 363-6561.

BEDROOM FURNITURE - girls washed pine 6 drawer dresser and desk, \$50; twin mattress 8 mos. old, \$50, u pick up. Rich, Ext. 5741.

DINING TABLE - oak, w/4upholstered chairs, 2 leaves/protective pads, \$500, have pics. Tom, 909-1498.

DINING TABLE - antique, 54", round, split pedestal w/hidden 3rd leg, 6 leaves, 8 chairs, custom pads, seats 12, \$950. 878-0898.

DRINKING GLASSES - \$1/ea. Ext. 3670.

HEADBOARDS - 2, twin size; 1 wicker, 1 wood. \$10/ea. Ext. 2716 or 878-2425.

LOVE SEAT - \$75; computer desk \$75; recliner/Rocker \$150; tw. mtrs \$50; foldable bed, \$100, gd. cond. 828-6321.

LOVE SEAT SOFA BED, - 58", full size, pink-gray, 8" cushions, \$100/obo. 730-3390.

MATTRESS - wooden base spring, IKEA, ask/\$60, qu. size, gd. cond. 924-4068.

Audio, Video & Computers

19 - Samsung 941BW 19" widescreen analog/digital LCD mon. black, 3 mos. old, \$160. Mwesigwa, Ext. 5621.

COMPUTERS - love to fix laptops/PCs, diagnosis & repair, restore smooth, fast performance, no chge if not satisfied. 816-1590.

DVD/CD ROM DRIVE - Sony, \$15. Ext. 7505.

SUBWOOFERS - Atlantic Technology #pbm70, self pwr'd, 125 watt 10" woofers, sell pr only \$250/obo. Edward, Ext. 7160.

TELESCOPE - Galileo FS-120DX, 1000mm x 120mm Reflector Super Scope w/heavy Tripod base & extra lenses, like new \$250/obo. Frank, Ext. 4748 or 277-0464.

Sports, Hobbies & Pets

TICKETS - 2 for NY Yankees vs TB Rays, Memorial Day wkend, Sat., Sept. 1st, RF Bchrs, \$10.50/ea. Alistair/Dev, Ext. 2948.

Wanted

24" BIKE - to commute to and on the Lab. Melanie, Ext. 5810.

SIT N STROLL CAR SEAT/STROLLER - 4 air travel, can wheel carseat around w/toddler in it. Dorene, Ext. 4153.

TUTOR/CONVERSATIONAL SPANISH - 1hr. wkly, late afternoon/eve., my home in E. Setauket for me and my 11 yr. old, Michael, Ext. 5890 or 246-5070.

YARD SALE FUNDRAISER - Saleable items for Feral Cat Rescue to be held 9/8. Melanie, 5810 or Donna, 398-8024.

For Rent

ANTIGUA - Timeshare wk. 11/24-12/1, grd. flr. studio, patio leads dir. to pool, bchfront view, www.antiguavillage.net, \$900/wk./neg. Michael, Ext. 2550 or 744-7360.

E. PATCHOGUE - 3 bdrm., 2 bath, l/r, f/p, w/d, new carpet, cac, bsmt., 2 car gar., deck, no pets. \$2,200/mo. Ext. 3960 or 475-2068.

LENEX, MA - 2 bdrm. timeshare unit avail. 11/17-24. \$850/wk. Tom, 909-1498.

MANORVILLE - 4 bdrm. house, part. furn., fin., bsmt., near 495, 12 min. to Lab \$1,500/mo. Eddy, 681-9120.

MEDFORD - 3 bdrm. house on horse farm, new kit., new bath, no smkg., pets ok. \$1,800/mo. 379-9459.

MT SINAI - 2 bdrm, eik, l/r, cac, full bath, approx. 900 sq. ft., all util. incl. but phone, no smkg/pets please. \$1,500/mo. 474-1205.

N. SHIRLEY - new renov. 2 bdrm. apt. w/full bath, kit., l/r, priv. ent., prkg., bkyl, shed, util. incl., 5 min. to BNL. \$1,400/mo. 281-6701.

PATCHOGUE - 2 bdrm. grd. flr., galley kit., OSE, sep. heat control, all util. incl., no smkg/pets, 1 mo sec., avail. Sept. 1. \$1,200/mo. Lisa, 289-6678.

ROCKY POINT - 1 bdrm. furn. house, priv. area nr beach, newly renvo., no pets, incl. elect., wtr. + sec. \$1,100/mo. 744-5282.

ROCKY POINT - 1 bdrm. apt., kit., l/r, bath, pvt. drway/ent., no smkg/pets, 1 mo. sec., util. not incl. \$850/mo. 821-3287.

SHIRLEY - 1 rm. kitnet., full bath., sep ent., furn., tv, elect, wireless int all incl., 5 min.to stores/beach., 15 min to Lab., 1 mo. sec., no smkg/pets \$650/mo. Regis, Ext. 8321.

SHOREHAM - 1 partial furn. bdrm., share a house w/professional, 7 mi. from BNL, internet/tv incl., no smkg/pets, single preferred. \$600/mo. 744-3543.

SOUND BEACH - Cute & cozy 1 bdrm., 1 bath house, OHW heat, w/d, w/w, off st. prkg., pets ok \$1,050/mo. John, Ext. 4028.

For Sale

BELLPORT - 4-BR. ranch, 2 bth, l/r w/dble opening fp to den, d/r, eik, oak flrs, screened deck on priv. yard, laundry rm, fin. bsmt: w/4th BR, bar, full bth, 2 rms; gar., 2 sheds, sprinklers, gt. cond. \$425,000; 949-7797.

BLUE POINT - Colonial, 5 bdrm. or potential Mother/Daughter, 2 bath, l/r, d/r, kit., bsmt./crawl space, porch, 1.5 car gar., fen. yd, low taxes. \$449,000/neg. Ext. 5025 or 286-1540.

MANORVILLE - freshly painted 3 bdrm. condo, on golf course w/2 full baths, den w/cathedral ceiling, f/p, terrace, pool & tennis, low taxes. \$321,000 553-5500.

MIDDLE ISLAND - Condo - Artist Lake Dr. 2 bdrm, 2 bath, Model/Blair Terrace, taxes \$2,589, common fee \$495, incl. heat, mint cond., \$219,900/neg. 345-5404.

PATCHOGUE - vlg., updated Victorian, 4 bdrm., eik, d/r, 1.5 bath, 2 car gar., all hwdflr., fp, pocket drs., on dead end, 73 Rose. \$379,000 758-0557 x20.

WADING RIVER - 2153 W.R. Manor Rd., 8-rm.Carrera-blk Col., 4 bdrm., 2 full baths, 1 half bath, full bsmt., gar., SWR schools, 90x165' prop. \$499,000, 929-6074.

In Appreciation

I would like to express my thanks to all my friends and coworkers in ITD and BNL for their kindness, prayers, and condolences upon the unexpected passing of my son-in-law Scott Starr and the generosity given to my granddaughter Sarah. We will be forever grateful. — Bob McGonigle & Family

Service Ads

Available at <http://intranet.bnl.gov/ads/displayAdsAll.asp> on the intranet homepage on site. Or request from bulletin@bnl.gov or phone Liz Seubert, 344-2346.

Blood Donor Sperry Saves Many Lives Help by donating at the BNL Blood Drive, 9/13

To replenish Long Island's blood supply, BNL is holding a blood drive on Thursday, September 13, 9:30 a.m.-3 p.m., in the Brookhaven Center. As everyone knows, there is no more vital gift. Many BNLees who give blood are repeat donors, most of whom donate whole blood, approximately one pint per donation.

All donations are important, but BNLee Ed Sperry, who works in the Lab's Superconducting Magnet Division, donates more than a pint of whole blood. Sperry, who has been a donor and a blood captain for the Lab's blood drives for many years, has also been an apheresis donor since the early 1980s. Apheresis is a special automated collection technique that allows the donor to give just platelets or plasma with all the remaining components returned to the donor. These special apheresis collections are used to assist patients who are dealing with certain medical conditions such as cancer therapy, open-heart surgery, blood disorders and organ transplants. Recently, the New York Blood Center presented Sperry with a certificate thanking him for his 75th apheresis donation.

Says Sperry, "I go to one of the local blood centers about every six weeks and spend two hours there on a machine that automatically separates platelets and plasma. Occasionally, I get a call from Long Island Blood Services to donate platelets for a specific patient with whom I have a highly compatible blood platelet match. The staff is wonderful, and the process is painless. I am grateful that I am healthy and feel it is the least I can do to help others who are dealing with serious medical conditions."

To give blood, donors must be from 16 to 75 years of age, in good health, and weigh over 110 lbs. Restrictions may apply to individuals from the United Kingdom and Europe. Donors should have photo identification and know their social security number.

Please give blood. To make an appointment, go to www.bnl.gov/HR/BloodDrive/. For more information, contact Liz Gilbert, Ext. 2315.

— Jane Koropsak



Roger Stoutenburgh P2210027

BNL Cycletrons MC Club BBQ , 9/8

The BNL Cycletrons MC Club's 11th Annual Family Bar-B-Q will be held at the gazebo in the ball fields on Saturday, September 8, raindate September 9. All are welcome. The cost of \$5 per person includes burgers, dogs, salads, soda, and more. Fun 4 all! For information and tickets, call Frank Dusek, Ext. 2022; or Charles Gardner, Ext. 5214.

Bronx Zoo Trip, 9/16

Take a trip to the Bronx Zoo with the Hospitality Committee on Sunday, September 16, leaving from the Lollipop House in the apartment area at 9 a.m. and returning to BNL by about 7 p.m. Tickets must be reserved in advance from Monique de la Beij, mdelabey@optonline.net or at 399-7656 after 9/3. The cost is \$10 per adult and \$5 per child 2-12 (under 2s are free). After reserving, pay at: Berkner Hall lobby, Bldg. 488, Tuesday, September 11, 10:30-11 a.m., or at the Rec Hall, Wednesday, September 12, 10:30-11 a.m. Buy zoo tickets at the zoo: \$14 per adult and \$10 for children ages 2-12.

Nayyarsons' Cafeteria Fare Breakfast

Mon.-Fri.: *Specials* start at \$2.99 - includes 2-eff sandwich w/ham, bacon, or sausage on Kaiser roll, 12-oz coffee

Sat., Sun., Hols.: *Specials* start at \$3.50

All days: *Continental*, \$2.75 - Danish, muffin, or donut, 12-oz coffee

Lunch

Mon.-Fri.: Special, \$4.95 - half a sandwich, 12-oz. medium size soup, 16-oz Fountain Soda, w/chips, pretzels, or pickle

Or small salad, 12-oz med. soup, and 16-oz Fountain Soda

Grill: Made to Order special, \$6:50, includes French fries, 16-oz. soda

Deli Specials: sandwich on speciality breads or wraps, \$5, includes chips, pretzels, or pickle & 16-oz Fountain Soda

Open Salad Bar: \$0.40/ounce, home-made soups start at \$2:10

Mon.-Thurs.: *Entrée* includes 2 sides, \$5.99;

Action Station from \$5.99;

Chef Entrée Specials w/2 sides & 16-oz Fountain Soda: \$6:50-\$7:50

Fri. Specials: Fresh pizza or Nathan's hot dogs, or hero by the inch from \$1.85; Chef's fresh catch of the day - from \$5.99

All prices are subject to NY sales tax.

For complete weekly menus, see link on BNL home page or, for special catering orders, Touch 3541 (Ext. 3541).

OntheWeb,theBulletinislocatedatwww.bnl.gov/bnlweb/pubaf/bulletin.html. A calendar listing scientific and technical seminars and lectures is found at www.bnl.gov/bnlweb/pubaf/calendar.html.

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