

## John Amabile Named SSD Manager

John Amabile has been named Manager of the Safeguards & Security Division, effective July 10.

The Safeguards & Security Division protects BNL's property against theft, misappropriation, or destruction, and prevents the sabotage of programs that could result in significant scientific or financial impact. The division's duties include preventing the malevolent release of hazardous materials that could endanger employees, the public, and the environment. BNL is a 5,300-acre facility with about 350 buildings and a huge inventory of scientific, technical and office equipment.

Amabile commented, "I'm familiar with DOE directives concerning security from working at DOE's Nevada Test Site, and I've learned how to handle difficult security challenges by keeping watch over tens of thousands of visitors daily as Operations Manager of Security Operations at the Disneyland Resort in Anaheim, California. I believe I'm well-trained, flexible,



Roger Stoutenburg 00790706

and ready to take on security challenges at Brookhaven Lab. I welcome the opportunity.

"My goal is to increase efficiency of the Safeguards & Security Division by taking care of people first," Amabile added. "My leadership philosophy is: Take care of employees and the community. By properly taking care of people, our division mission will be accomplished."

John J. Amabile served in the U.S. Army from 1982 to 2002, retiring as a First Sergeant. In 2001, he took a position as Sergeant Major, Directorate of Training, U.S. Army Military

Police School, at Fort Leonard Wood, Missouri, responsible for directing army-wide military police training programs.

In 2002, he joined Wackenhut Services Incorporated, the contractor for security services for DOE's Nevada Test Site. As a Protective Force Lieutenant, Firearms & Tactics Instructor, and then as Security Systems Manager, Amabile exercised his expertise in training and security to protect important national resources.

In 2003, Amabile joined the Disneyland Resort in Anaheim, California, as Operations Manager, Resort Security Operations. In that position, he was in charge of over 550 employees and oversaw the protection of over 17 million visitors annually.

Amabile earned a B.A. in general studies from Columbia College in Columbia, Missouri, in 2001, and he has taken over 50 professional development courses, including training sponsored by the U.S. Army and DOE. — Diane Greenberg

## 2006 Sambamurti Lecture, 7/26

### 'Matter-Antimatter Transformations at 3-Trillion Hertz'

Antimatter, which is composed of the antiparticles of normal matter, is only very rarely found naturally on Earth, because when a particle and its antiparticle come into contact with each other, the two annihilate each other. One of the great, as yet unsolved problems in physics is the apparent asymmetry of matter and antimatter in the visible universe: why is the observable universe apparently almost entirely made of matter? Are other places almost entirely antimatter?

Physicists have known for 50 years that certain types of neutral mesons — subatomic particles consisting of a quark and an antiquark bound by a force called the strong interaction — can transform via the weak interaction force from particle to antiparticle. The study of these transformations has led to many important findings, including the discov-



ery at BNL in 1963 by visiting scientists James Cronin and Val Fitch of the rare event known as Charge and Parity Violation (CP Violation), which is one of the necessary conditions to create the matter-antimatter asymmetry in the Universe.

Recently, at Fermi National Accelerator Laboratory (FNAL), after 15 years of attempts, scientists have made the first measurement of the particle-to-antiparticle transformation

rate for the "strange B meson" particle. On Wednesday, July 26, at 4 p.m. Ivan Furic of the University of Chicago will give the annual Sambamurti Lecture, this year entitled "Matter-Antimatter Transformations at 3-Trillion Hertz." All are welcome to this free public lecture, which will be held in the Large Seminar Room of the Physics Department, Bldg. 510.

Furic, who, with Stephanie Menzemer of Universitat Heidelberg and Guillermo Gomez Ceballos of the University of Cantabria, shared FNAL's 2006 Tollestrup Award for Outstanding Postdoctoral Research for their work on this topic, will describe the strange B meson and why measuring its transformation rate was so difficult. He will discuss what can be learned from this research, and how more of such precision measurements can shed light

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## BNL Hosts Fourth International Heavy Quarkonium Workshop

Members of the Quarkonium Working Group (QWG), more than 120 leading scientists from 40-plus research centers and universities, met at BNL on June 27-30 to discuss the latest experimental results, theory developments, and outlook in heavy quarkonium physics.

During the workshop's four intensive days (see agenda at [www.bnl.gov/hqworkshop](http://www.bnl.gov/hqworkshop)) participants gained a state of the art overview of heavy quarkonium theory and experiment covering spectroscopy, decay, production, in-medium effects, the determination of the QCD parameters, and the possible physics beyond the Standard Model — the current theory of

fundamental particles and how they interact.

Attention also focused on current data-taking experiments such as BaBar at Stanford Linear Accelerator Center; Belle at KEK, Japan; BES at IHEP-Beijing, China; CLEO at CESR, Cornell University; CDF and D-Zero at Fermi National Accelerator Laboratory (FNAL); H1/Zeus at DESY, Germany; and PHENIX and STAR at RHIC. Exciting discussions also centered on the recent discovery of "narrow" states, possibly quarkonia, at BaBar, Belle, and CLEO, which promise new ways to get a deeper insight into QCD; and the potential of experiments

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### What's a Quarkonium?

The fundamental building blocks of matter include six types of quarks, which, like all other forms of matter, each have antimatter equivalent. Quarks and antiquarks form particles that in turn form atoms.

A quarkonium is a type of particle called a meson, made up of a heavy quark — either a "charm" or a "bottom" — and its own antiquark. In the everyday world, quarks are always confined within certain particles by the strong interaction, a fundamental force that is described by the theory of Quantum Chromodynamics (QCD). Quarkonium states are considered to be one of the most important probes of deconfinement, a transition in high temperature/density QCD, resulting in matter likely to have been present at the beginning of the Universe. Quarkonium physics in the context of deconfinement is actively studied at BNL's Relativistic Heavy Ion Collider (RHIC), and will be investigated at the Large Hadron Collider (LHC) that will soon be operating at CERN, Switzerland.

## BNL Physics, Chemistry Departments Developing New Neutrino Experiment in China

Combining their research and development skills in chemistry, physics, and engineering, BNL scientists are active participants in the effort to build a new neutrino experiment in China. The proposed Daya Bay Neutrino Experiment is meant to measure a quantity related to neutrino oscillations, the changing of neutrino identities from one of three kinds to another. Collaborating with scientists from the Chinese Academy of Sciences, Lawrence Berkeley National Laboratory, and numerous laboratories and universities in the United States, China, Taiwan, Russia, and the Czech Republic, members of BNL's Chemistry and Physics Departments want to help answer some of the most puzzling questions about the elusive particles.

Neutrinos are uncharged elementary particles produced naturally from the sun and cosmic rays and found in three types that morph from one form to another as they travel through space, people, buildings and even Earth itself, interacting only rarely. Scientists have characterized two of these oscillations in detail, and are seeking to measure details of the third. A crucial quantity related to this oscillation — known as the mixing angle  $\theta_{13}$  (pronounced "theta-one-three") — has not yet been measured, but scientists expect that it is not zero.

Still in the planning stage, the Daya Bay experiment would look for this oscillation by studying antineutrinos (a neutrino's counterpart with the same mass and opposite spin). The antineutrinos are produced at two nuclear power stations containing a cluster of several reactors in southern China. Groups of detectors, eight in all, each weighing 100 tons, would be set up underground at different distances from the reactors. Described as "liquid onions," each detector will contain an inner

volume of a metallic liquid mixture in which neutrinos produce bursts of light. This central component, called gadolinium-loaded organic-liquid scintillator (Gd-LS), will be surrounded by a layer of liquid scintillator with no gadolinium, and an outer layer of mineral oil. Scientists in the Chemistry Department's solar neutrino/nuclear chemistry group are investigating several varieties of Gd-LS with long-term chemical stability and suitable optical properties in order to amplify the signal produced when antineutrinos interact in the detector.

"People have done experiments using Gd-LS in the past, and in at least one case they reported that in a matter of months, it seriously deteriorated," said Dick Hahn, the leader of the chemistry group. "Once we get our experiment started, we want to run it for three years. We want to make sure something doesn't start changing."

By using different synthesis methods, improved purification steps, and by continuously testing samples in the laboratory, the solar neutrino group members have obtained encouraging results that indicate that their Gd-LS will last through the experiment's data-collecting stage.

BNL also has a key role in managing the project. Physicist Steve Kettell will serve as the project chief scientist and some BNL scientists, as well as others in the United States, have responsibilities as task leaders for key areas of the experiment, in concert with their Chinese colleagues.

In addition to helping to coordinate detector engineering efforts and developing software and analysis techniques, scientists in the Physics Department's electronic detector group are responsible for developing Daya Bay's detector "veto system." While the detectors are made to observe neutrinos flying from

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BNL scientists pictured at the site of the proposed Daya Bay Neutrino Experiment, are (front, from left) Steve Kettell, Physics Department; Minfang Yeh, Chemistry Department; David Jaffee, Physics; (back row, from left) Dick Hahn, Chemistry; Mary Bishai, Physics; Laurence Littenberg, Physics; and Milind Diwan, Physics. Not pictured are Brett Viren, Physics; and Jim Frank, Physics.



## CALENDAR OF LABORATORY EVENTS

- The BERA Sales Office is located in Berkner Hall and 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 (Rec. Hall) is located in the apartment area.
- Contact names are provided for most events for more information.
- Calendar 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](http://www.bnl.gov/esol/schedule.html) for schedule. Jen Lynch, Ext. 4894.

#### Mondays: CIGNA Rep On Site

10 a.m.-3 p.m. CIGNA's Janice Petgrave is in Bldg. 185, to assist CIGNA medical plan participants with claims issues. Call Linda Rundlett, Ext. 5126, for 30-min. appointment.

#### Mondays: BNL Social & Cultural Club

Noon-1 p.m., Brookhaven Center, South Room, free beginners dance lessons. Rudy Alforque, Ext. 4733, [alforque@bnl.gov](mailto:alforque@bnl.gov).

#### Mondays & Thursdays: Kickboxing

\$5 per class. Noon-1 p.m. in the gym. Registration is required. Christine Carter, Ext. 5090.

#### Mon., Wed., & Fri.: Tai Chi

Noon-1 p.m., Brookhaven Center North Rm. Adam Rusek, Ext. 5830, [rusek@bnl.gov](mailto:rusek@bnl.gov).

#### Tues., Thurs. & Fri: Ving Tsun Kung Fu

Noon-1 p.m., Brookhaven Center, North Room. Taught by Master William Moy. Tuition. Scott Bradley, Ext. 5745 or [bradley@bnl.gov](mailto:bradley@bnl.gov).

#### Tue., Thu. & Fri: Upton Nursery School

On Summer Recess. Call Ext. 5090 for information on Sept. enrollment.

#### Tuesdays: Welcome Coffee

10 a.m.-noon, apartment area gazebo. First Tuesday of every month is special for Lab newcomers and leaving guests. Lisa Yang, 979-3937.

#### Tuesdays: BNL Music Club

Noon, North Room, Brookhaven Center. Come hear live music. Joe Vignola, Ext. 3846.

#### Tuesdays: Jiu Jitsu Club

6:30-7:30 p.m. in the gym. All levels, ages 6 and above. \$10 per class. Tom, Ext. 4556.

#### 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/](http://www.bnl.gov/bera/activities/toastmstrs/).

#### Tues., Wed. & Thurs: Rec Hall Activities

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

#### Wednesdays: On-Site Play Group

10 a.m.-noon, apartment area gazebo. An infant/toddler drop-in event. Parents meet while children play. Fang Dong, 871-5362.

#### Wednesdays: Market Day

11:30 a.m.-1:30 p.m., Berkner Hall parking lot. Fresh vegetables, plants, arts & crafts, and more. Joanne Rula, Ext. 8481.

#### Wednesdays: Weight Watchers

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

#### Wednesdays: Yoga

Noon-1 p.m., B'haven Center. Free. Ila Campbell, Ext. 2206, [ila@bnl.gov](mailto: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., Brookhaven Center, South Room, free beginners dance lessons. Rudy Alforque, Ext. 4733, [alforque@bnl.gov](mailto:alforque@bnl.gov).

## Five Students Receive 2006 Battelle-Brookhaven Women in Science Awards

Five local female high school students who excel in science and/or mathematics were each awarded \$1,000 at a ceremony held at BNL to encourage them to pursue careers in those fields.

The annual award was established in 1999 by Battelle, the Ohio-based corporation that partners with Stony Brook University to manage Brookhaven Lab through Brookhaven Science Associates, and by Brookhaven Women in Science, a not-for-profit group at the Laboratory whose aim is to promote the advancement of women.

### Arrivals & Departures

— Arrivals —  
None

— Departures —

Noelle L. Cutter.....Biology  
Tomasz Szreder.....Chemistry

The winning students are: (from left) Chinh Dang, William Floyd High School; Angela Mangano, Eastport-South Manor High School; Meghan O'Donnell, Shoreham-Wading River High School; Kirstin Krusell, Riverhead High School. Alice Lu, Longwood High School, was not present.



Roger Stoulenburgh 01220506

### Talk by WWII Tuskegee Airman Lee Hayes, 8/3

Lee Hayes, a World War II Tuskegee Airman, will give a talk at noon in Berkner Hall on Thursday, August 3, about his achievements and challenges as one of the first black military airmen in the U.S. Sponsored by the Brookhaven Employees Recreation Association and BNL's Diversity Office, the talk is free and open to the public. All visitors to the Lab age 16 and over must bring a photo ID.

Hayes, a resident of Amagansett who worked at BNL as a custodian from 1958 to 1966, served in an all-black bomber squadron at Tuskegee Army Air Field in Alabama. He was among 994 precedent-breaking black soldiers at Tuskegee who passed rigorous tests between 1942 and 1946 to become pilots in the then-segregated armed forces. According to the Tuskegee Airmen, Inc., website ([www.tuskegeeairmen.org](http://www.tuskegeeairmen.org)), "These airmen fought two wars — one against a military force overseas and the other against racism at home and abroad." — Diane Greenberg

### 2006 Sambamurti Lecture

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on some of the most important issues in particle physics.

Furic received his B.S. degree in physics from the University of Zagreb, 1998, and his Ph.D. in physics from the Massachusetts Institute of Technology (MIT), 2004. His honors also include: the Enrico Fermi Fellowship, University of Chicago, 2004-2006; the MIT Physics Department's Martin Deutsch Award for Excellence in Experimental Physics, 2001; and the Award of Head Provost, University of Zagreb, 1997.

Established in 1992, the Sambamurti Memorial Lecture commemorates the work of Aditya Sambamurti, a BNL physicist who died of cancer in 1992, at age 31. Each year, an outstanding young physicist whose professional interests overlap those of Sambamurti is selected to deliver the lecture.

## Celebrate Gerhart Friedlander's 90th, 7/28

An afternoon of talks, reminiscences by a variety of speakers

BNL colleagues, friends, and family will gather in the Hamilton Seminar Room of the Chemistry Department, Bldg. 555, at noon on Friday, July 28, to celebrate Gerhart Friedlander's 90th birthday. Friedlander, distinguished nuclear chemist and Chair of Chemistry, 1968-1977, will be honored by a half-day session of reminiscences presented by a variety of speakers.

Joining BNL in January 1948, Friedlander found his principal research interests in nuclear

spectroscopy and high-energy nuclear reactions. After his retirement in 1981 he remained active in research, turning his attention to solar neutrinos and spearheading the gallium experiment that eventually became the GALLEX project. From 1992 to 2000 he was Editor-in-Chief of the magazine *Science Spectra*.

A buffet lunch is also planned as part of the celebration. To register, or for more information, contact Ralph Weston, [weston@bnl.gov](mailto:weston@bnl.gov) or Ext. 4373.

### Neutrino Experiment in China

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the reactors, they also are sensitive to other particles, such as isotopes produced by cosmic rays. Because neutrino interactions are rare, it is important that scientists are not confused by false signals given by non-neutrino particles. To avoid this, the detectors will be surrounded by counters that register incoming cosmic rays so that the data that follows can be ignored.

"It's not necessarily high-tech, but you've got to figure out how to do this over a very large area with very high efficiency," said the physics group leader Laurence Littenberg. "You really don't want to miss many of the cosmic rays."

The goal of the Daya Bay experiment is to measure a value of  $\theta_{13}$  to a level of precision that is unprecedented in neutrino experiments. Knowing this value would help scientists understand more about neutrino behavior and possibly

the early history of the universe. Some scientists believe that neutrinos could explain why there is only matter in the universe, even though the Big Bang should have created equal amounts of matter and antimatter.

"The question is, why is there this asymmetry?" Hahn said. "If  $\theta_{13}$  turns out to be zero, this type of experiment won't tell you much. But if it's not zero, it may turn out to be something very important."

Daya Bay still has to go through a series of five "Critical Decision" stepping stones outlined by DOE. The project is currently in the conceptual stage, or CD0. DOE recently granted R&D money to Daya Bay, but a verification review must be passed before it can enter the next stage. The tentative project timeline sets construction to start in 2008, with data collection beginning in 2010.

— Kendra Snyder

### Proper Disposal of Personal Medical Refuse

Lab custodial staff sometimes encounter dangerous items in regular trash, including used hypodermic needles, sharps, and test strips used in personal blood sugar monitoring. All BNL staff should remember that disposal of contaminated sharps in the regular trash is a violation of BNL policy and of the OSHA blood borne pathogens standard. It can also cause great harm to an individual accidentally exposed, causing additional harm to the Laboratory.

Persons on site who are generating contaminated sharps in the course of personal blood monitoring or administration of insulin or other medications via syringe have the following two options for properly disposing of them:

- They can get a small personal sharps container from the Occupational Medicine Clinic (OMC), dispose of sharps in the container, and bring it to OMC when full for disposal and exchange with a new container.
- They can dispose of their sharps in an impenetrable, closeable container that they provide for themselves. They are then responsible to safely bring the full container off site and properly dispose of it themselves.

Used test strips do not contain a sufficient quantity of blood to be considered red bag waste and pose negligible risk. However, it would be prudent to dispose of these with the needles or in red bag waste, as their presence in regular waste has been a cause of worry for staff involved in trash disposal.

Contact Joe Falco, Occupational Medicine Clinic Manager, at Ext. 3670 for more information.

### Weight Loss, Diabetes Talk

Join registered dietitian Amy Shapo on Friday, August 3, from noon to 1 p.m. in Berkner Hall, Room B, where she will present "Weight Loss and Diabetes: Taking It Off and Keeping It Off," a discussion of techniques for successful weight loss without dieting. Preregistration is required. Contact Michael Thorn, Ext. 8612.

### Heavy Quarkonium Workshop

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planned for facilities to be upgraded in the future.

BNL hosted this International Workshop on Heavy Quarkonium, the fourth in a series, locally organized by BNL physicists Dima Kharzeev, Agnes Mocsy, Peter Petreczky and Thomas Ullrich, and supported by secretarial help from Amber Aponte and Marcy Chaloupka. Other workshops in the series were at CERN in 2002, at FNAL in 2003, and at IHEP in 2004. A 500-page CERN Yellow Report resulting from the work

of this group appeared in 2005 (CERN-2005-005, arXiv: hep-ph/0412158).

The next such workshop will be held at DESY in October 2007. By then, the high-energy LHC frontier of discovery will be complemented by new results from high-precision experiments exploring lower energy scales, keeping heavy quarkonium physics in the forefront of high-energy particle and nuclear physics.

For more detail, see the QWG website at [www.qwg.to.infn.it](http://www.qwg.to.infn.it).

### Fall Undergraduate Student Selection Now Open

To host a student for 16 weeks during the fall semester, the DOE Science Undergraduate Laboratory Internship (SULI) student database is now open for review. Hosting a student will require the requesting department to provide funding for the stipend, \$6,400, and housing, approximately \$3,600, for the appointment to be made. The Office of Educational Programs will cover student travel costs and other incidental program expenses as necessary.

The deadline for appointments is August 31, 2006; it is recommended that requests be made much sooner than the deadline. Contact Mel Morris, Ext. 5963, for more information or to gain access to the database to review the available students.

## Longwood Student Wins First Place In BNL's Science, Society Essay Contest



Longwood High School student Jacquelyn Cooper (fourth from left) won the grand prize of \$500 in the annual Science and Society Essay Contest sponsored by BNL. Sarah Whitney (fifth from left) from Huntington High School, won \$300 as the second-place winner; and Justin Chako (third from left), East Meadow High School, won \$200 in third place. A panel of four independent judges chose the winning essays based on critical thinking, scientific accuracy, creativity and organization. The winners were chosen from 157 entries from 19 Long Island schools.

Five honorable-mention prizes of \$50 each were also awarded. They were given to: (from left) Mitchell Feinberg, Smithtown High School East; Anil Divakaran, East Meadow High School; Neil Patel, Herricks High School; Alex Yang, Brentwood High School; and Matthew Brown, Smithtown High School West.

In the essay, the students were asked to give

their opinion on the statement: "Recent studies suggest that there is a need for more scientists and engineers in the U.S. workforce." Specifically, they were to respond to three questions: Do you think this perception is valid? Is there a public responsibility to encourage students to pursue a career in science? What would motivate you to pursue a career in science?

Students' responses were diverse, although most agreed with the initial statement. The winning students' essays may be read online at [www.bnl.gov/education/Contests/HSEssay/2006essaywinners.asp](http://www.bnl.gov/education/Contests/HSEssay/2006essaywinners.asp)

The Lab's Office of Educational Programs manages the contest, and Brookhaven Science Associates, the company that runs the Laboratory for DOE, sponsored the contest prizes. Friends of Brookhaven, a Laboratory employee organization, started the essay contest seven years ago.

— Diane Greenberg

## In Memoriam

**George M. Guydish**, who started as a carpenter in Plant Maintenance on June 16, 1947, and left the Lab as a rigger group leader on April 30, 1981, died at the age of 89 on January 15, 2006.

**Frank Foster**, who joined the Accelerator Development Department as a technician B on October 7, 1957, and left the Lab from the National Synchrotron Light Source Department as a technical associate II on February 24, 1993, died at age 72 on March 9, 2006.

**Muriel Olenick**, who came to the Lab's Plant Engineering Division on September 9, 1985, as a custodian, and retired from the same division as general supervisor of custodial services on February 1, 2005, died on March 11, 2006. She was 66.

**Irving Polk**, who joined the Proton Synchrotron Division as an associate mechanical engineer on October 10, 1949, and retired as a senior mechanical engineer on August 31, 1984, died at 84 on May 6, 2006. He was a Physics Department guest engineer until 2001.

## CIGNA Representative On Site, Mondays

Each Monday, Janice Petgrave of CIGNA Healthcare will be available in Human Resources, Bldg. 185, to assist CIGNA medical plan participants with claims issues, 10 a.m.-3 p.m. Be sure to bring all pertinent documentation. For a 30-minute appointment, call Linda Rundlett, Ext. 5126.

## Classified Advertisements

### Wanted

**DONATED HOUSEHOLD ITEMS** - highchair, crib, baby dresser, changing table, crib bumpers, all baby gear, gen items, curtains, etc. Ann Marie, Ext. 7007 or 473-9678.

**RECORDS** - LPs and 45s, 1940-present, I'll give them a good home. Ext. 7661.

**TOURING KAYAK** - 14 feet or more for paddling around the shore and flatwater, must be in very good cond. Jim, Ext. 8370.

**TV STAND** - looking to purchase TV stand for 27" TV, light/med natural wood color. Melanie, Ext. 5810 or 830-7427.

### Lost & Found

**LOST: GPS UNIT** - small olive colored, hand held GPS unit, very important. Jeremy, Ext. 2037 or 917-482-3705.

### For Rent

**CENTER MORICHES** - 4-bdrm. wtr-frt. house, dock on creek, eik, d/wr, w/d, f/p, 2 full bath, more. \$2,000/mo. Don, 261-7908.

**CORAM** - new 1-bdrm., ground-level apt., l/r w/cathedral ceiling, pvt. ent., 20 min. to Lab, includes all. \$1,250/mo. Megan, 831-2565.

**FARMINGVILLE** - 1 bdrm. in house, share bath w/2, full kit., elec. incl., avail. 9/1. \$450/mo. Ben, 513-8275.

**MANORVILLE** - 1 bdrm., eik, lg. l/r, main flr., quiet, pvt., all util. incl. \$995/mo. Annamaria, 878-8967.

**MASTIC** - 1 bdrm., full bath, eik, den, own driveway, own ent., all incl. 15 min to Lab, no pets/smkg. \$900/mo. Joe Mondri, Ext. 3499.

**MATTITUCK** - lg. 1 bdrm. apt., office, lg. bath, 1/1r kit. combo, lg. deck w/nice water views & very quiet. \$850/mo. Ron, 298-5625.

**MILLER PLACE** - share fully furnished, non-smkg., lg., Colonial house in prof. resid. area, cac/internet/TV cable, backyard deck, furn. own bdrm. 10 mi. to BNL. \$650/mo. 744-8486.

**RIDGE** - 3-bdrms., l/r, kit., fin. bsmt., gar., 1/2 acre, no pets, + util. avail. now \$1,650/mo. 924-4147.

**ROCKY POINT** - cozy 2-bdrm. apt, 15 min. to Lab, + elec. \$850/mo. Lori, 849-3196.

**SHOREHAM** - 1998 Victorian on shy acre, backing golf course in North Hills, 10 min to Lab, 3,000 sq.ft., 4 bdrm., cac, high ceilings, wood fls., fin. bsmt., f/p. \$2,500/mo. Yongjae, 821-2260.

**SHOREHAM** - 2 lg. bdrms. & l/r, fully carpeted. kit., full bath, cable, internet access, pvt. ent., on cul-de-sac., no smkg./pets, 8 mi. to BNL. \$1,200/mo. 445-7838.

**YAPHANK** - 3 bdrm., 2.5 bath, l/r w/fp, d/r, eik, newly painted, move-in cond., avail. 9/10, + util. \$1,850/mo. 516-380-6758 or 212-327-3924.

**YAPHANK** - new bsmt. apt., 1 bdrm., living area, eik, full bath. no pets/smkg., all util. incl. except phone, outside ent., 10 min to Lab. \$1,000/mo. Matt, 238-5038.

**YAPHANK** - studio, lovely quiet n'hood, suitable for 1, full Bath, kitchenette, pvt. ent., all util., no smkg./pets, 1 mo. dep. +sec, avail. 8/1. \$650/mo. 345-5244.

**YAPHANK** - Colonial Woods, 2 or 3 bdrm condo, move-in cond. all new ki. & 1 + 1/2 bath, 1/2 mi. to Lab, \$1,600/mo. plus utils. 1/mo. sec., refs. 205-5447.

**OCALA, FL** - 3-bdrm., 2-bath, unfurn 2-yr.-old ranch in gated Ocala Palms 55+ golf community, 6-mo. lease or longer considered, includes utilities, photos avail. \$1,400/mo. Ext. 5483 or 744-0790.

### For Sale

**CENTER MORICHES** - picture perfect 3-bdrm., 2-bath contemporary ranch w/ sep. 1-bdrm. apt., 1/2 acre, all new apl., oak flrs., sec. sys., igs, new drive, fenced. \$539,000 Frances, Ext. 3177.

## Get to Know Your Lab!

### Lunchtime Tour of PHENIX, 7/21

Today's employee lunchtime tour will visit PHENIX, the largest detector at the Lab's Relativistic Heavy Ion Collider. The group will meet at the upper lobby of Berkner Hall at noon, and return by 1 p.m. Contact Elaine Lowenstein, Ext. 2400, for more information.



## One-On-One TIAA-CREF Retirement Counseling

A TIAA-CREF consultant will visit BNL on Friday, July 28, and Monday, July 31; to answer employees' questions about financial matters. The consultant will help BNLers understand the importance of protecting assets against inflation, find the right allocation mix, learn about TIAA-CREF retirement income flexibility, and compare lifetime income vs. cash withdrawal options. For an appointment, call Arlene Lyons, (866) 842-2053, Ext. 4629. (Not the on-site Ext. 2053.)

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**EAST PATCHOGUE** - beautiful 3-bdrm. ranch, 2 bath, eik, l/r, d/r, part fin. bsmt., attached gar., 15 min. to BNL. \$369,000 289-6652.

**EAST YAPHANK** - 3 bdrm. ranch lot w/2 sheds, cathedral ceilings, new roof, new carpeting, hd.wd. fls. & completely rebuilt oil/hot water furnace, 5 min to BNL, more \$290,000/neg. Frederick, 772-8839.

**KINGS PARK** - totally renovated 4-bdrm., 2-bath hi-ranch, everything new, Anderson windows, vinyl siding, 30-yr. Arch roof, s/s apps, jucci/tub, poss m/d. \$499/neg. Richard, Ext. 5319 or 835-8309.

**MASTIC** - lg. Cape, eik, formal d/r, hrd.wd. floors throughout, 2 full baths, 4 bdrms., full bsmt., gar., new siding, windows & roof, fenced in yard, deck. \$349,000/neg. 399-4532 or 281-3812.

**MIDDLE ISLAND** - 2 bdrm., 2 bath, l/r, d/r, lg. eik, new upgrade appl., partly fin. bsmt., igs., .5 acre, shed, 5 min. to BNL. \$299,000 Karen, 924-4968.

**MILLER PLACE** - 4-bdrm. Colonial, lg. eik., d/r, l/r, fam. rm, 2-1/2 baths, gar., 20 min. to Lab & SBU, 5 min. to beach, excel. schools. \$469,000/neg. 473-4715.

**PLAINVIEW** - 4-bdrm. cape, 1 bath, eik, d/r, l/r, newly fin. bsmt., igs, det. gar., new roof, windows, and wood floors. \$459,000 Millie, Ext. 7433 or 516-390-3530.

**RIDGE** - 2-bdrm. condo in Strathmore Ridge, 2 min from BNL, new full bath, d/r, l/r, attic, shed, kit. w/new cherry wood cabinets, stainless steel appl., FSBO. \$159,000/neg. Tara, 704-9912.

**RIVERHEAD** - 2 bdrm., 1bath, expandable to 3/4 -2, quiet residential n'hood., detached gar., deck, jacuzzi, all Andersons, hardwood floors, fenced yard, 2/5 acre. \$369 727-2346.

**SOUTHAMPTON/RIVERHEAD** - 3 bdrm., 2.5 bath, 2-f/p, c/a, all wood flrs., granite counter tops, newly remodeled, in a lake community. \$559,000 Charlie, 680-8184.

**WADING RIVER** - 2 bdrm., 1 bath, kit., l/r, partly fin. full bsmt. w/outside ent., carport w/attached 2-car gar., set on quiet secluded acre, 10 min. to Lab. \$395,000/neg. Don, Ext. 2010.

**WEST YAPHANK** - charming hi-ranch, 3 bdrm., 2 bath, d/r, eik, full bsmt., f/p, hd.wd. flrs., all new systems, 1 acre plus, mature landscaping, more, 10 min. to Lab. \$389,000/neg. 329-0270.

**VERO BEACH, FL** - 2 yrs. young, unique country home w/extra corner lot, move-in ready, details at [tinyurl.com/h9q5c](http://tinyurl.com/h9q5c). \$219,000/neg. 772-539-1617.

## In Appreciation

My family and I thank all at BNL who extended their hearts through the passing of our heavenly Grandmother, Lucy Di-Prima. She has spread her wings to see all she has missed for so long. 1921-2006 You are with us always. — Nicole Kelly  
Words can not express how everyone has made me feel during the passing of my mother. Your thoughtfulness and generosity were overwhelming. I always thought I had family here. Now I know it! Thank you all again. — Danny Carneiro

## On-Site Services

**BOAT & MOTORCYCLE STARTERS, ALTERNATORS, ALL VEHICLES** - The on-site service station can supply needs for boats and m/cycles as well as perform all vehicle services, oil changes, check-ups, NYS inspections, new batteries, tires, timing belts, repairs, etc., while you are at work. Ext. 4034.

**ENTERPRISE RENT-A-CAR** - Need to rent a car or a truck for a day only? Or for longer? Stop by the on-site Enterprise Rent-a-Car office at Bldg. 355, 50 Brookhaven Ave., to check weekend specials, daily rates. Or call Ext. 4888 or see [www.enterprise.com](http://www.enterprise.com).

## CALENDAR

### — THIS WEEKEND —

#### Friday, 7/21

##### \*Employee Lunchtime Tour

Noon. Visit PHENIX, the largest detector at BNL's Relativistic Heavy Ion Collider. Meet in the lobby at Berkner Hall, transport will be provided to PHENIX. The group will return to Berkner by 1 p.m. No registration is needed.

##### \*BERA Trip to Great Adventure

7 a.m. Leave Brookhaven Center on luxury coach. \$30 per person.

### — WEEK OF 7/24 —

#### Monday, 7/24

##### IBEW Meeting

6 p.m. Centereach Knights of Columbus Hall, 41 Horseblock Rd., Centereach. A meeting for shift workers will be held at 3 p.m. in the union office. The agenda includes regular business, committee reports, and the president's report.

#### Tuesday, 7/25

##### Agilent Roadshow Demo

10 a.m.-2 p.m., Berkner Hall Parking Lot. Test drive leading-edge equipment on Agilent's customized 18-wheeler. Experience hands-on demonstrations with Agilent experts on a variety of applications, RF/MW/digital design, and much more. Karen, 454-4645.

#### Wednesday, 7/26

##### \*Sambamurti Lecture

4 p.m., Physics Department, Bldg. 510, Large Seminar Room. Ivan Furic, University of Chicago, will give the annual lecture in memory of Aditya Sambamurti, entitled "Matter Antimatter Transformations at 3-Trillion Hertz." All are welcome. See story on page 1.

#### Friday, 7/28

##### \*Celebrate Friedlander's 90th B-Day

Noon, Hamilton Seminar Rm., Bldg. 555. An afternoon of talks, reminiscences by a variety of speakers, BNL colleagues, friends, and family will honor Gerhart Friedlander, distinguished nuclear chemist and Chair of Chemistry, 1968-1977.

### — WEEK OF 7/31 —

#### Thursday, 8/3

##### \*WWII Airman to Give Talk

Noon, Berkner Hall. Lee Hayes, a World War II Tuskegee Airman, will talk on his experiences as one of the first black military airmen in the U.S. Sponsored by BERA and BL's Diversity Office. All are welcome. See notice on page 2.

#### Friday, 8/4

##### Sweet Charity Show, Bellport

6:30 p.m. Bellport Gateway Playhouse. BERA's catered tent party before the *Sweet Charity* show begins at 8 p.m. will be held on the front lawn of the Playhouse and will include wine, beer, soda, water, cheese and vegetable/antipasto platters. \$53 per person includes show ticket. Buy tickets at the BERA Store, Berkner Hall.

#### Sunday, 8/6

##### Ellis Island, Statue of Liberty Trip

9 a.m. Luxury coach leaves Brookhaven Center for the trip, sponsored by BERA. \$20 per adult/child includes coach, ferry tickets, guided tour. Depart NYC at 4:30 p.m. Buy tickets at the BERA Store.

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](mailto: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/](http://www.bnl.gov/HR/jobs/).

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

**NS3686. TECHNOLOGY ENGINEER (I-6, Reposting)** - Requires a bachelor's degree in computer science, information technology, physics, or closely related field and at least 3 years of relevant experience. Experience with PLC programming is necessary as are excellent written and oral communication skills. A good knowledge of C-programming is highly desired as is a working knowledge of TCP/IP, networking, switches and serial communications. The ability to configure and maintain a cryogenic control system for a large scale, high availability, internally distributed PLC based network is a plus. Will participate in the ongoing design, upgrade, and operation of the RHIC Cryogenic Operations facility. Must be able to work well in an operations environment and perform as a member of a team. Must be willing to provide phone support from home when required. CAD/RHIC Cryogenics. Collider-Accelerator Department.

**NS3692. CRYOGENIC SYSTEMS ENGINEER/PROJECT ENGINEER I (P-9)** Requires experience as a cryogenic engineer with a degree in engineering and at least 10 years of relevant experience. Knowledge of cryogenic systems for superconducting magnets and related hardware is necessary, as is knowledge of cryogenic safety standards, pressure vessel design, vacuum systems, and instrumentation and control systems. Excellent written and verbal communications skills, engineering design and analysis software skills, and office computer skills are necessary. The Cryogenics Group is responsible for operation and upgrade of the 10 kW Relativistic Heavy Ion Collider (RHIC) superconducting magnet refrigeration system, the Energy Recovery Linac cryogenic system, and other existing and planned cryogenic systems. The engineers assigned to the group direct the efforts of technicians and designers during all phases of construction of new equipment, during the repair and upgrade of existing equipment, and during refrigerator operations. Collider-Accelerator Department.

**JH3948. PROJECT ENGINEER I (P-9)/SENIOR PROJECT ENGINEER (P-10) (Deputy, NSLS-II Conventional Facilities Division)** - Requires an advanced degree or equivalent capabilities in engineering or architecture and at least 15 years' experience in facilities engineering and construction of which a minimum of 5 years should be in a supervisory or project management capacity. Candidate must have experience and working knowledge in contract management involving large construction projects, engineering or architectural design practices, use of AutoCAD or other design tools, estimating methods, drawing and specification package preparation, and bidding and solicitation practices. Candidate should also possess working knowledge in implementing project management practices required by DOE Order 413.3 Program and Project Management for Acquisition of Capital Assets to include project planning, budgeting, scheduling, cost estimating, risk management, and performance management. Professional license is a plus, as well as knowledge working in an architect-engineering firm environment. Experience in design and construction of mission critical research, laboratory, or high technology facilities is required. As Deputy, the selected candidate will support the Director of Conventional Facilities in engineering and construction activities for NSLS-II. Major responsibilities include coordinating the engineering and design process and coordinating and managing design and construction contracts. At the direction of the Division Director, may supervise or lead elements of the following areas: the NSLS-II Conventional Facilities Engineering Team, the Architect/Engineer Design Team, the Construction Manager, one or more Construction Contractors, and the Engineering and Construction Services Support Team from Plant Engineering. Re-

ports to the NSLS-II Conventional Facilities Division Director.

**JH3951. PROJECT ENGINEER II (P-7)** - Requires a bachelor's degree or equivalent capabilities in mechanical engineering or related discipline and at least 10 years of relevant experience of which a minimum of 4 years should be in a supervisory capacity. Candidates must possess a solid knowledge of engineering, design, and drafting practices and must have comprehensive experience with PC-based 3-D (PRO-E and/or Inventor) and 2-D (Autocad) software. Substantial experience in implementing and maintaining large databases of design drawings and documents is required. Considerable knowledge of CAD installation related to hardware, including plotters, video drivers, and RAM allocation is required. Good knowledge of machine shop and procurement practices is highly desirable. Work experience in the design of accelerators and beamlines will be given preference. The successful candidate will manage all CAD activities for the NSLS-II project including hiring, training and scheduling of designers, acquisition of hardware and software, and management of the CAD database. As an expert of 3-D and 2-D CAD software, will also be expected to address problems with the software and also maximize the archiving capabilities of the software. Will work closely with the mechanical engineering staff to coordinate design engineering support on a wide range of projects including facility design, accelerator systems and beamlines, and electrical schematics. Will conduct in-depth checks and quality reviews of models and schematics to ensure that the work done by the Design Engineers and Designers follows the engineering standards and expectations of the customer and will also evaluate various design alternatives. Will manage the processing of the cost center expenses and time reporting. Will be responsible for monitoring and evaluating the performance of all designers. Reports to the NSLS-II Mechanical Engineering Group Leader. National Synchrotron Light Source-II.

**JH3947. DESIGN ENGINEER (T-5)** - Requires a BS degree in mechanical technology, mechanical drawing, or equivalent and 10 years experience in 3D modeling of complex mechanical components and systems. Requires substantial knowledge of engineering materials, machine shop practices and vendor products, as well as demonstrated skill in developing engineering concepts into detailed 3D models and drawings. Considerable experience in managing layouts, parts and assemblies in the drawing database. Substantial experience is required in specifying drive components such as motors, gears, bearings, actuators, switches and connectors. Good interpersonal skills and strong self-motivation are required. Work experience in synchrotron radiation facilities or particle accelerators is desirable. Experience with Autodesk's Inventor (and AutoCAD) will be given preference. The NSLS-II Mechanical Design Engineer will have the following major responsibilities: generate 3D models and 2D drawings of accelerator and beamline components such as magnets, ultra-high vacuum chambers, support and alignment systems, x-ray absorbers, diagnostics devices, mirrors and monochromators; develop conceptual designs to meet physics and engineering specifications; create and maintain mechanical layouts and assemblies of major subsystems; interpret and ensure conformance to applicable standards, codes and policies including ANSI Y14.5; conduct tolerance stack-up and interference analyses; document designs through detailed drawings including bill of material, ECN and catalogue items; and perform checking procedures as assigned by the immediate supervisor. May direct and coordinate the work efforts of other design personnel. Will report to the Design Room Supervisor. National Synchrotron Light Source-II.

**JH3946. SENIOR DESIGNER (T-4)** - Requires an AAS degree in mechanical technology, mechanical drawing, or equivalent and 10 years' experience in 3D modeling of complex mechanical components and systems. Requires good knowledge of engineering materials, machine shop practices and vendor products, as well as demonstrated skill in developing engineering concepts into detailed 3D models and drawings. Considerable experience in managing layouts, parts and assemblies in the drawing database. Substantial experience is required in specifying drive components such as motors, gears, bearings, actuators, switches and connectors. Good interpersonal skills and strong self-motivation are required. The NSLS-II Senior Mechanical Designer will have the following major responsibilities: to generate 3D models and 2D drawings of accelerator and beamline components such as magnets, ultra-high vacuum chambers, support and alignment systems, x-ray absorbers, diagnostics devices, mirrors and monochromators; develop conceptual designs to meet physics and engineering specifications; interpret and ensure conformance to applicable standards, codes and policies including ANSI Y14.5; and document designs through detailed drawings including bill of material, ECN and catalogue items. Will report to the Design Room Supervisor. National Synchrotron Light Source-II.

**TB3693. TECHNICAL SPECIALIST (T-2)** - Requires an AAS degree in mechanical technology or equivalent plus at least four years of relevant experience. Must have good mechanical skills, the ability to work with hand and power tools, and familiarity with mechanical drawings, and process and instrumentation drawings. Familiarity with vacuum equipment and techniques associated with cryogenic insulating vacuum systems is also required. Good communication skills and the ability to work as part of a team are desired. Responsibilities include fabrication and installation of cryogenic piping, valves, cryostats, and cryogenic targets and supporting the operation of large helium refrigeration systems. Regular rotating shift work is required. Collider-Accelerator Department.

**NS3356. REGISTERED NURSE (On Call/Per-Diem) (A-4)** - Requires New York State Registered Nurse license; Occupational Medicine background and experience preferred. Responsibilities will include routine nursing care, assistance with case management for Workers' Compensation, first aid, drug and alcohol testing, travel medicine, health education, immunizations, and assistance with physical examinations. Human Resources and Occupational Medicine Division.

**TB4237. PAINTER (A)** - Under minimum supervision, performs wide variety of interior and exterior skilled painting operations on buildings, furniture and laboratory equipment. Prepares surface, removes paint, mixes paints and matches colors. Will use all methods of application as required. Must know use and application of paints, synthetics, bleaching materials, stains and similar products and proper use and care of painting equipment. Required to rig staging and scaffolding. Plant Engineering Division.

### Motor Vehicles & Supplies

**01 CHEVY S10** - ext. cab, 4cyl, am/fm/cass, a/t, new tires and batt., runs well, looks great, great gas mileage. 70K mi. \$6,700. James, Ext. 4026 or 872-8966.  
**00 MERCURY SABEL SE** - drk. blu w/ gry. itr., 3.0 Duratec eng., int. loaded, gd. cond., runs well, test dr. by apt. 144K mi. \$5,000/neg. Frank, Ext. 4748 or 277-0464.  
**99 OLDSMOBILE BRAVADA** - 6cyl., awd, c/c, a/c, all power, excel. cond. 90K mi. \$5,500/neg. Mark, 793-1405.  
**98 TOYOTA CAMRY XLE** - 4cyl, 30+mpg, abs, a/c, 4-dr., c/c, cd/cass, pwr. seats, all belts, new water pump, 4 new Michelins. 95K mi. \$7,900/neg. Ronald, Ext. 4553.  
**96 FORD WINDSTAR** - fair cond., runs well, clean, 3.8L GL, a/t, a/c, am/fm, red ext., 7 passenger, tow hitch. 110K mi. \$2,000/neg. Mike, Ext. 5194 or 816-5431.  
**95 FORD TAURUS** - original owner, well maint., 3L V6 eng., abs, a/c, all pwr., am/fm/cass, needs trans. work. 110K mi. \$500. 587-5553.  
**85 CHEVY K10 PICK-UP** - runs, 4x4, snow plow, new brakes, extra set of axels, best offer. 886-1545.  
**85 PROWLER TRAVEL TRAILER** - 28 foot, new fridge, all appliances work well, power tongue lift, sleeps 6, axle reversed for beach. \$1,000/neg. Jim, Ext. 7912 or 516-316-6346.  
**78 CHEVY C-10** - step-side pick-up, 350 eng, aluminum rims, runs well. \$2,800. John, Ext. 7625.  
**ALLOY WHEELS** - 16" set of 4, pic avail. Yangsoo, Ext. 4375 or yangsoo@bnl.gov.  
**CAR AUDIO SPEAKERS** - 2 Cerwin Vega 6.5" 4 ohm, 15w \$70; 2 dual 6.5" 4 ohm, 15w \$60; 2 Xtreme Sound 6x9 4 ohm, 290w \$80. William, Ext. 7139 or 443-799-2571.  
**JACK SET** - Torin, 2-ton jack, 2 jack stands, 2 wheel stops, 36" creeper. William, Ext. 7139 or 443-799-2571.  
**SUPERCHIP** - 04/05 Ford dsl 6L, terrific, Richard, Ext. 5319 or 835-8309.

### Boats & Marine Supplies

**15' SUGAR SAND MIRAGE** - 1995 jet boat w/trailer, Mercury eng., well maint., good for water skiing. \$2,000/neg. Melvyn, Ext. 5963 or 298-8963.  
**16' HOBY CATAMARAN** - incl. reconditioned galvan. trlr., new rims/tires, mast float & step tool, ready to roll and sail. \$950/neg. Ronald, Ext. 4553.  
**18' SEA RAY SPORT** - see pics at tinyurl.com/zufnf. \$15,500/neg. Richard, Ext. 5317 or 765-8092.  
**19' ANGLER CENTER/CONSOLE** - 115hp Mercury, wide beam, trailer, all 1987, Bimini top, VHF, radio. \$3,700. Kevin, 882-0519.  
**21' 1997 SEASWIRL STRIPER** - tw console cc 5.7L Merc Volvo Penta Dr, VHF, GPS, FF, enclos. hd. top, swim plat., excel. cond., man \$15,000/neg. David, 369-3445.  
**30' SEA RAY WEEKENDER** - mint cond., 1978 T/350 i/b Merc. cruisers, low hrs., prof. maint., 2nd owner, 12' beam. \$18,000/neg. 878-8059.  
**34' SILVERTON CONVERTIBLE** - 1987, twin engines 270hp, new canvas, instruments, many extras, excel. cond. \$37,000/neg. 929-5911.

### Furnishings & Appliances

**AIR CONDITIONER** - through the wall/window, 24K Btu, 220V, \$100. Chris, Ext. 2094 or 929-5008.

## Summer Sundays, Now Through 8/20

What can you do that's free, fun, and educational on a lazy summer Sunday? Visit BNL to enjoy a variety of entertaining activities for people all ages. The science research laboratory that is home to six Nobel Prizes will feature interactive exhibits and an exciting, action-filled science show. Each week, tour a different facility at the Laboratory's 5,300-acre campus and learn about everything from DNA to the perfect liquid, a state of matter now thought to have existed at the beginning of the universe. Summer Sundays is offered from July 9 through August 20. No reservations are needed. Visitors may arrive any time between 10 a.m. and 3 p.m. All visitors age 16 and over must bring a photo ID. The "Whiz Bang Science Show" will be staged at 10:30 a.m., noon, 1:30 p.m. and 3 p.m. each Sunday, with a special exception: At 3 p.m. on both July 23 and August 6, a magician will show off some amazing science tricks. Visitors may test their mathematical skills at Nature's Numbers, a hands-on exhibit that features designs in nature and shows how they relate to math. Also, a historical exhibit on Camp Upton - the U.S. Army base that occupied the Laboratory site during World Wars I and II - will be on display.



### Playing With Science, This Sunday, July 23

Enjoy interactive exhibits at the Lab's Science Learning Center. Learn about the Lab's educational programs and contests, and visit exhibits from the Long Island Science Center, Riverhead, and the Children's Maritime Museum, Port Jefferson. At 3 p.m., be entertained by a science magician who reveals the science behind his tricks.

**AIR CONDITIONER** - 28,000 Btu window or wall mounted, Friedrich, 2 years left on service warr. \$750 neg. Tom, Ext. 3085 or 744-4535.

**BEDROOM FURNITURE** - girl's white oak desk w/attached hutch \$125; matching head board \$50; king-size bed frame \$25. Tom, Ext. 3085 or 744-4535.

**CAPTAIN'S BED** - pine bed w/3 lg. drawers, \$100 obo; twin mattress, \$50 obo. Both less than 1 yr. old. 874-3652.

**COFFEE TABLE** - solid oak table w/4 mirror inserts, 30"x48" good cond. Ask \$75. Stephen, Ext. 2897.

**DEHUMIDIFIER** - Westinghouse, 42-pint removal, white, like new cond., \$75. Joe, Ext. 3783 or 929-8321.

**DESKS** - 2 oak wood finished desk w/ matching file cabinets, never used, desks \$250 ea., file cabinet \$125 ea. Deborah, 757-3952.

**ENTERTAINMENT UNIT** - mirror, wall, new cond., \$500; 3 pc. leather furn., beige, excel. cond., \$800. Cynthia, 286-3545.

**FREEZER** - Sears upright, coldspot, 6 dr. shelves, 2 wire shelves, frost free, 18" x 27" x 50", \$100. Herb, 928-0297.

**FURNITURE** - Ladderback, rush seat chairs, \$45 pair; wood folding chairs, \$25 pair; misc. lamps. 803-0506 leave msg.

**FURNITURE/TELEVISIONS** - RCA televisions; end table, \$15; vintage oak coat tree, \$50; loveseat, \$50. 803-0506, leave msg.

**MATTRESS** - soft queen size, like new, gd. cond., \$100. Herb, 928-0297.

**REFRIGERATOR** - white Frigidaire, 18.2 cu. ft., \$200. Chris, Ext. 2094 or 929-5008.

**REFRIGERATOR** - Whirlpool side x side 25 cu. ft. water, ice in door. works well. \$60. Steve, Ext. 4719.

**VACUUM CLEANER** - Eureka model 5740 bagless upright w/hepa filter, powerful 12-amp motor, 15" wide cleaning surface, \$35. Fred, Ext. 5319 or 369-9720.

### Audio, Video & Computers

**PLAYSTATION 1** - w/controller, game & memory card, \$35. Chris, Ext. 2094.

### Sports, Hobbies & Pets

**BABE RUTH MEMORABILIA & STAMPS** - Copy of Babe Ruth's 1919 agreement w/NY Yankees; Stamps, "Exploration of Mars." Best offer. Ollie, 727-5912.

### Tools, House & Garden

**GENERATOR** - 4,000 watts, never used, maintained, runs well, \$200. Jimmy, Ext. 7859 or 678-8725.

**LOG SPLITTER** - home made, heavy duty, towable, 8hp electric start. \$275. 727-2346.

### Miscellaneous

**AQUARIUM** - 45 gal., incl. all accessories w/custom built solid oak stand & matching canopy, \$250. Bill, 886-1182.

**BICYCLE** - boy's, 16", black and yellow, rarely used. \$20. Gene, Ext. 7113.

**BICYCLE** - girl's, 20", pink and purple, used one season. \$23. Gene, Ext. 7113.

**BOARD GAMES** - suitable up to teens. original boxes, all pieces, like new. \$5-7 each. Gene, Ext. 7113.

**CAR BOOSTER SEAT** - Fisher Price, \$5. Eugene, Ext. 7113.

**CHINA SERVICE FOR 12** - complete formal svc for 12, Royal Gallery, white china, lt. blue flower, silver trim, Macy's. \$125 obo. Ext. 5090 or 828-2172.

**CRIB MATTRESS** - Evenflo, 54"x28"x6" deluxe, infinite inner spring, excel. \$25 neg. Gene, Ext. 7113.

**DJ TABLES** - dual system w/scratch pads, upgraded mixer. Ask \$175. Cheryl, Ext. 2852.

**DUFFEL/GEAR BAG** - 26" x 14" has main compartment plus 2 side & 2 front, handle, shoulder strap, black, new in pkg. \$15. Ext. 3973.

**KITES** - (3) incl. string and tails, all 3 for \$15. Robert, Ext. 4637.

**POWER SCOOTER** - 300 lb. cap., front basket, cane holder, built in batt. charger, not used in 3 yrs., ask \$950. 981-5993.

**STROLLER** - Graco deluxe, excel. cond., swivel wheels, dual direction handler. \$18. Gene, Ext. 7113.

**TICKETS: DAVE MATTHEWS** - w/Govt. Mule, Bela Fleck, others. Randalls Island, Sat., 9/5, 2 GA tix for \$140. Toni, Ext. 5257.

**TRACTOR** - John Deere, 1941 Model A, restored to like new cond., converted to 12 volts, new batt., \$4,500. Bill, 886-1182.

### Yard & Garage Sales

**BELLPORT** - Sat., 7/23, 8 a.m.-2 p.m., 100 N. Howells Point Rd., between South Country Rd. & Head of the Neck. 803-0506.

### Community Involvement

**EAST END DISABILITIES** - needs gently used household donations to make home a home for group home. Ann Marie, Ext. 7007 or 473-9678.

### Happenings

**PROG ROCK CONCERT** - Music fans who enjoyed the sold out Berkner Hall performance of the progressive rock band 'Afterlife,' and those who would like to see a repeat performance, please call x5537 or visit [www.afterlifeband.com](http://www.afterlifeband.com) to inquire further. Help BERA keep the music alive at BNL. Rob, Ext. 5537.

### Free

**FERRETS** - good home needed for 2 friendly male ferrets, approx. 5 yrs. old, cage incl. 846-4331.

**SNOW PLOW FOR GARDEN TRACTOR** - fits lg. Craftsman garden tractors, good cond., used 2 seasons. Travis, Ext. 7451. (Classified ads are continued on page 3.)