# Bulletin



Vol. 60 - No. 31 September 15, 2006

### **DOE Funds 30 New Computing Projects** Including Four Projects Involving Brookhaven Lab

OE issued a press release on September 7 announcing approximately \$60 million for 30 new computational science projects across the nation, including four with BNL involvement.

The projects are aimed at accelerating research in designing new materials, developing future energy sources, studying global climate change, improving environmental cleanup methods and understanding physics from the tiniest particles to the massive explosions of supernovae.

"Advanced computing is a critical element of President Bush's American Competitiveness Initiative and these projects represent an important path to scientific discovery," DOE Under Secretary for Science Raymond Orbach said. "We anticipate that they will develop and improve software for simulating scientific problems and help reduce the time-to-market for new technologies."

Said James Davenport, who heads BNL's Computational Science Center, "We are delighted to participate in these multi-institutional projects. They show that as machines with 100,000's of processors become available BNL researchers will be ready to use them for new science. They also show that our small but growing computational science efforts are receiving the recognition they deserve."

The four new computational projects involving BNL are:

#### **QCD Software, Systems**

Developing new computer software and systems to study quantum chromodynamics (QCD), which deals with the particles that make up the protons and neutrons of atoms, known as quarks. BNL project leader: Michael Creutz, Physics Department.

#### **Open Science Grid Access**

Providing scientists with

dependable access to the Open Science Grid, a national computational facility that allows researchers to share knowledge, data, and computer processing power in fields ranging from physics to biology. BNL project leader: Torre Wenaus, Physics.

#### **Climate-Prediction Modeling**

Climate-prediction modeling based on human-made emissions, such as aerosols and greenhouse gases, and changes resulting from energy policies. BNL project leader: Robert Mc-Graw, Environmental Sciences Department.

#### **Mathematical Center**

Developing a mathematical center to provide advanced software tools for applications ranging from particle accelerator technology to nuclear energy. BNL project leaders: James Glimm and Roman Samulyak, both of the Computational Science Center. — Kendra Snyder

#### **Nobel Laureate Melvin Schwartz Dies Co-Discovered the Muon Neutrino at BNL in 1962**

 ${f M}$ elvin Schwartz, co-winner of the Nobel Prize in Physics, died on August 28, in Twin Falls, Idaho, after a long struggle with Parkinson's disease. In 1962, Schwartz, with Leon Lederman and Jack Steinberger, at the time all of Columbia University, discovered the muon neutrino at the Alternating Gradient Synchrotron (AGS), the then brandnew accelerator at BNL. The three researchers shared the 1988 Nobel Prize for this discovery.

Born in the Bronx on November 2, 1932, Schwartz attended the Bronx High School of Science, and went on to earn both his A.B. and his Ph.D. in physics from Columbia University, in 1953 and 1958, respectively.

First coming to BNL in 1955, Schwartz performed his Ph.D. thesis research through 1956 at the Lab's first accelerator, the Cosmotron. He was employed by BNL 1956-58, while finishing his thesis. Returning to Columbia, Schwartz con-



tinued to do research at the AGS, 1958-63. After relocating to Stanford University in 1966, he maintained his research ties with Brookhaven.

In 1970, Schwartz founded a major computer-security company, Digital Pathways, Inc., in Mountain View, California. Later, Nicholas Samios, former BNL Director and currently head of the BNL-RIKEN Research Center, encouraged Schwartz to return to physics. He did so in 1991, returning to BNL as Associate Laboratory Director (ALD) for High Energy & Nuclear Physics, with responsibilities that included BNL's Relativistic Heavy Ion Collider (RHIC), a world-class accelerator then in construction to be used to explore matter as it existed at the beginning of the universe.

Schwartz left BNL in 1994 to return to Columbia University as the I.I. Rabi Professor of Physics. He received Columbia University's highest honor, the Alexander Hamilton Medal, in 1995, and he retired in 2000.

Said BNL Director Samuel Aronson, "I knew Mel since the 1960s at Columbia and had the pleasure of collaborating with him in the 1970s on an experiment at Fermilab [Fermi National Accelerator Laboratory], where we discovered atoms composed of a pi meson and a mu meson. Our paths crossed again later at BNL, when he became ALD. I owe Mel a debt of gratitude for his asking me in 1992 to form the experimental collaboration that became PHENIX at RHIC. I will miss him."

Samios, who was Schwartz's classmate in the 1950s at Columbia, commented, "Mel was a brilliant, unorthodox physicist who enjoyed all challenges. It was a pleasure to welcome him back to Brookhaven as an Associate Director. He was extremely influential in molding the experimental program at RHIC.

Derek Lowenstein, Collider-Accelerator Department Chair, said, "Mel Schwartz was a great friend, physicist, and colleague. He was one person whom you could trust to put the accepted scientific truths of the day to the test, before they became gospel."

Melvin Schwartz was a member of the National Academy of Sciences and a fellow of the American Physical Society (APS). He received the Hughes Prize from the APS in 1964.

— Diane Greenberg

#### **Six BNL Scientists Awarded Tenure**

Prookhaven Science Associates (BSA) granted tenure Beffective May 1 to six BNL scientists: Wolfram Fischer, Collider-Accelerator Department; Frithjof Karsch, Physics Department; Lisa Miller, National Synchrotron Light Source Department; Peter Steinberg,

Chemistry Department; Daniel van der Lelie, Biology Department; and Vitaly Yakimenko, Physics. The accomplishments of Fischer, Karsch, and Miller were described in The Bulletin of July 25 and September 1. This week's edition features Steinberg.

#### Peter Steinberg

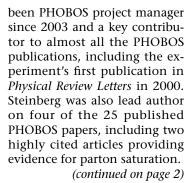
Deter Steinberg, a physicist in the Chemistry Department, was granted tenure based on his scientific contributions in heavy ion physics, scientific leadership in the PHOBOS collaboration at the Relativistic Heavy Ion Collider (RHIC) and of the heavy ion physics community, and on vision and leadership in planning for the future of heavy ion physics generally, and at Brookhaven specifically.

Said Alex Harris, Chemistry Chair, "Peter Steinberg is an internationally recognized, outstanding young scientist whose insight and accomplishments have already made a substantial physics impact and who shows tremendous future promise both for physics productivity and for leadership within the Laboratory and the nuclear physics community. The quality and extent of his contributions earned extremely 2005-present, strong support from the distinhe has also

guished reviewers of his candidacy for tenure: he has a bright future in heavy ion physics, and is a valuable asset for BNL."

Steinberg's major research accomplishments include a his playing a primary role in establishing the PHOBOS method of measuring centrality and charged-particle multiplicity in heavy ion collisions; finding evidence that supported parton

saturation effects at RHIC; and taking a leading role in developing several scaling relations for heavy ion collisions that were elucidated by PHO-BOS. Heading 5 PHOBOS com- 를 puting from 2001-03 and ಹ





## 417th Brookhaven Lecture: 'Imaging Protein Machines That Break Down Proteins' Huilin Li talks about research that may facilitate drug design to combat TB, Alzheimer's



Refreshments will be offered before and after the lecture. To join the lecturer at a restaurant off site after the talk, contact Kathy Folkers, Ext. 3415, or folkers@bnl.gov.

The two diseases of tuberculosis (TB) and Alzheimer's have little in common except the suffering they inflict on patients and their families. Recent research by biophysicist Huilin Li of the Biology Department and his team, however, shows an unexpected similarity in the architectural design of the two otherwise different protein machines that help activate these illnesses.

Li will talk about his work in the 417th Brookhaven Lecture: "Imaging Protein Machines That Break Down Proteins" — which he will give at 4 p.m. on Wednesday, September 20, in Berkner Hall. All are welcome to this free

lecture. Visitors to the Lab of 16 and over must carry a photo ID.

As Li will explain, the protein machines he is investigating are protease complexes that are made up of several protein molecules. Proteases "cleave" (cut up) other proteins using a molecule of water, and are involved in many physiological and cellular reactions.

Li and his group use two techniques, electron microscopy and x-ray crystallography, to study the structures of one protease complex called proteasome that is found in tuberculosis bacteria, and another protease complex called Gamma-secretase that is

embedded in the cellular membrane of human neurons. He will explain how these protease machines are involved in causing TB and Alzheimer's, and, based on his research, how they break down the protein substrates in their respective cellular environment. Li expects that further research will make it easier to design drugs for treating TB and Alzheimer's.

Huilin Li, who has a Ph.D. from the University of Science & Technology in Beijing, China, worked in Lawrence Berkeley National Laboratory before joining BNL in November 2002. — Liz Seubert

#### CALENDAR

OF LABORATORY EVENTS

- The BERA Store 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 #317 (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 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 CIG-NA medical plan participants with claims issues that participants have been unable to resolve themselves. 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.

#### Mondays & Thursdays: Kickboxing

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

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

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

#### Tuesday & Thursday: Aerobic Fitness

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

#### Tues., Thurs. & Fri: Ving Tsun Kung Fu Noon-1 p.m., Brookhaven Center, North Room. Taught by Master Wil-

liam Mov. Tuition. Scott Bradley, Ext. 5745 or 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. Gym. All levels, ages 6 and above. \$10/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/

Tues., Wed. & Thurs: Rec Hall Activities 5:30-9:30 p.m. General activities, TV, ping pong, chess, games, socializing. Christine Carter, Ext. 5090.

#### Wed. & Fri: On-Site Play Group

10 a.m.-noon, Recreation Bldg. An infant/toddler drop-in event. irents meet v children play. Petra Adams, 821-9238.

#### 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: Ballroom Dance Class

Brookhaven Center, N. Ballroom. Instructor: Giny Rae. Arup Ghosh, Ext. 3974; Donna Grabowski, Ext. 2720; or Vinita Ghosh, Ext. 6226

#### 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 Bernholc, 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. 7-11:30 p.m. North Ballroom, Dance Social, workshops. Rudy Alforque, Ext. 4733, alforque@bnl.gov.

#### In Memoriam: Gary Herbst

ary Herbst, a senior techni-Jcal specialist in the Superconducting Magnet Division, died on August 12, 2006 after a brief illness. He was 45.

Herbst's Supervisor Paul Ribaudo said, "This is a tragic loss for the Magnet Division and for the Laboratory, and the loss for his family is tremendous. Gary was a dedicated employee, but above all, a devoted husband and father."

Herbst joined the Laboratory in 1986 as a contractor/laborer and became a full-time employee in the Collider-Accelerator Department in August 1987. He transferred to the Magnet Division in 2000 where he worked as a senior technical specialist in the cryogenic facility.

Bill McKeon, Herbst's co-worker and close friend, added, "Gary and I worked side-by-side for seven years and I miss him, both professionally and personally. He was such an upbeat person. We shared ideas, job responsibilities, and a friendship that is irreplaceable. He has left a void in our facility and in our hearts."

McKeon said that he and Herbst worked on maintaining, fabricating, and running a cryogenic facility for the sole purpose of testing superconducting magnets. He recalled a job they had worked on together for a company in China.

"Representatives from the company visited BNL last year," McKeon said. "They were so impressed with the job we

> had done that they extended a personal invitation for us to visit China," said McKeon. "Unfortunately, Gary and I didn't get the chance to go, but their invitation is a tribute to Gary's outstanding work performance. He put his all into every project and it showed. I hope

he knew what a positive impact he had on all of us."

Herbst was an avid camper and enjoyed spending his leisure time on woodworking projects. As his friends recall, he was thrilled that his children had taken an interest in woodworking and he spent time showing them the tricks of the trade.

According to Ribaudo, "He was a great guy with a big heart and we all miss him."

Herbst is survived by his wife Christine, who works in BNL's Information Technology Division; four children: Brittany, Travis, Taylor and Jordan; his parents, Anneliese and Manny of Levittown; and sister, Nicole Mahoney of Ronkonkoma.

Jane Koropsak

## Correction

The Bulletin greatly regrets that the name of senior physicist Alan Thorndike, who died on February 16, 2006, at 87, was inadvertently misspelled in the In Memoriam notice of August 11, 2006. Thorndike had joined the Physics Department on July 8, 1947, and retired on May 3, 1981.

#### **Tenure: Peter Steinberg** (cont'd)

Peter Steinberg earned a B.A. in political science from Yale University and a Ph.D. in physics at the Massachusetts Institute of Technology. After two years at Columbia University as a postdoc, he joined BNL in December 1999, with a concurrent Fulbright Visiting Professorship at the University of Cape Town during the 2002-03 academic year.

#### **BWIS Talk, 9/21** The Low Number of Women in Science

ponsored by Brookhaven Women in Science (BWIS), Johanna Lev-Pelt Sengers, Scientist Emeritus at the National Institute of Standards & Technology (NIST), will give a talk titled "The World's Science Academies Address the Under-Representation of Women in Science and Technology," on Thursday, September 21, at noon in Berkner Hall.

The low representation of women in the science and technology workforce is a serious concern in many countries, including the U.S. In 2004, the InterAcademy Council, comprised of presidents of 15 prominent science academies around the world, installed an international advisory panel to study the problem and propose measures to alleviate it. Levelt Sengers will discuss the council's recommendations.

Levelt Sangers earned a Ph.D. in physics from the University of Amsterdam in 1959, and began her career in research at NIST in 1963. She recently co-chaired a panel called "Women for Science" for the InterAcademy Council. She has received numerous awards, including the 2006 Yeram S.Touloukian Award from the American Society of Mechanical Engineers (ASME). She is a Fellow of the American Physical Society, the American Association for the Advancement of Science, and ASME.

All are invited to the talk. Visitors to the Lab age 16 and over must bring a photo ID. For more information, contact Lynne Ecker, Ext. 2538, or lecker@bnl.gov.

#### **Benefits Office Reminder** Proof of Student Status

## All medical/dental plan participants are reminded to submit an

updated proof of student status to the Benefits Office, Bldg. 185, for the upcoming college semester. The Benefits Office will submit this to the insurance company on your behalf. To be eligible for benefits, children over age 19 must be unmarried, a full-time student attending an accredited college or university and primarily supported by you. Dependents who meet this criteria are covered until the end of the year age 23 is attained. 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.

#### Security Awareness at BNL Message from Len Butera, Deputy Manager, Safeguards & Security Division

infortunately, thefts do occur at Brookhaven. Last month, for example, we investigated two suspected larcenies involving government property, and our Police Group found ten buildings unsecured.

It is important to remember that security is a full-time responsibility. Awareness is one of the keys to a safe and secure workplace. Please remember:

- Wear your badge at all times and keep it in a safe place when off site (not in your vehicle, please).
- Lock offices and buildings when they are not occupied.
- Secure valuable items when they are not in use.
- "Password protect" your computer when you leave the office or work area for an extended period of time.
- Protect Lab assets (both information and property).
- · Ask questions about suspicious activities and communicate any concerns to your supervisor and/or the Police Group.
- Do not participate in activities you believe might compromise security.
- Provide feedback to enable security improvements.
- Understand how your actions impact the security of others and the Laboratory.
- Obey barricades, signs, postings, labels, and tags.

It is everyone's responsibility to protect each other, the Laboratory, and the public. Report any suspicious activities immediately to the BNL Police Group at Ext. 2238/2239/2222 or call 911.

For more information, contact your organization's representative or visit http://intranet.bnl.gov/ssd/issm.asp.

#### BERA-IAA Sponsors Santoor Concert, 9/17 Featuring Acclaimed Player Pandit Ulhas Bapat

This Sunday, September 17, from 4 to 6:30 p.m., Berkner Hall will ring with the unique sound of the santoor, an instrument with approximately 100 strings which originated in the Himalayan Valley of Kashmir. The santoor will be played by internationally acclaimed musician Pandit Ulhas Bapat, accompanied by Shri Survyaksha Despande on Tabla. All are welcome to this concert, sponsored by the BERA Indo-American Association (IAA). Tickets are \$12; IAA members, \$10. Visitors to BNL of 16 and over must carry a photo ID.

Bapat, who has given concerts all India and the world, is currently the most sought-after santoor player in the Hindi film industry. Visit www.santoorulhas.com for more information. He also composes music: his composition for a Dance Script "Ganges to Nile" was produced by Anurekha Ghosh & Co. UK. His latest releases are by Anannya Creations.

Reserve tickets by e-mail at bera-iaa@bnl.gov, or at the BERA Store. The ticket price includes a half-hour intermission with snacks. For more details about the artist, call Geeta and Achyut Tope, 345-2677. For other information, contact: Ramesh Gupta. gupta@bnl.gov, 344-4805; Sharadha Sambasivan, sharadha@bnl. gov, 344-4862; Saroj Kandasamy, saroj@bnl.gov, 344-5078; or Vatsal Bhatt, vbhatt@bnl.gov, 344-5453.

### **Employee Lunchtime Tour** BNL Birding, 9/22

All are invited to take the employee lunchtime tour on Friday, September 22, to go birding in the BNL woods. Ernie Lewis of the Environmental & Waste Management Services Division will lead the group and help identify any birds that are seen, such as this nuthatch (right) spotted by Lab photographer Roger Stoutenburgh. Wear suitable anti-tick shoes and clothes, and bring binoculars if you like. Meet the group at noon in the lobby of Berkner Hall for transportation to the walk area; you will be returned to Berkner by 1 p.m.

#### **One-on-One Retirement Counseling**, 9/20, 21

A TIAA-CREF consultant will visit BNL on Wednesday, September 20, and Thursday, September 21, 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.



**Arrivals & Departures** 

- Arrivals - Hooman Davoudiasl ...... Physics Hua Li.....Biology Petr Oleynikov ......CFN Jason Olfert ..... Env. Sci. Rebecca Paris ......C-A Wolfgang Soldner..... Physics Tao Wang ......Biology Linlin Zhao ......Chemistry - Departures -Divine Adika.....S&H Svcs. Beth Blevins...... Waste Mgmt. Se Young Kwak.....NSLS Celine Lesaulnier.....Biology Anthony Nicoletti ...... C-A Gwendolyn Pettit.....Fiscal Richard Rossetti.....SSD Haibin Zhang ..... Physics

... TUESDAY, SEPTEMBER 19 ...

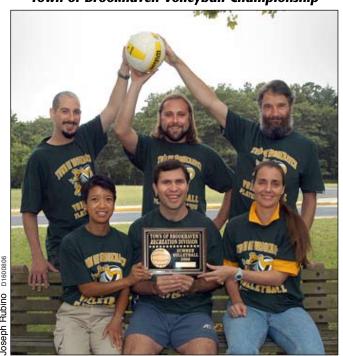
... 1:30 PM ... ... BERKNER HALL ... ... ALL EMPLOYEE MEETING CALLED BY BNL DIRECTOR SAM ARONSON ...

The Bulletin September 15, 2006

## Volleyball Extravaganza!

#### Can You Dig It? They Did!

BNL's Volleyball team, Dig It! wins Summer 2006 Town of Brookhaven Volleyball Championship



BNL's winning Dig It! team are: (back, from left) Seth Pollock, Captain Jean Francois Pratte, and Richard Wagener; (front, from left) Marie Van Buren, Gene Van Buren, and Cecilia Sanchez Hanke.

We all know that the Lab is swarming with employee athletes who enjoy BERA sports such as softball, golf, soccer, tennis, cycling, running, Tai Chi, badminton, basketball, swimming, and more. . . However, a team of BNL volleyball players, Dig It!, stepped outside the Lab's borders over the summer to journey to, and win, the Town of Brookhaven Volleyball Championship title.

Team Dig It! came in to existence when several players from the BERA volleyball league expressed an interest in playing in the Town of Brookhaven Summer Sand volleyball league. Team Dig It! members are: Captain Jean Francois Pratte, Seth Pollock, Cecilia Sanchez Hanke, Gene Van Buren, Marie Van Buren, and Richard Wagener.

To advance to the final rounds, Dig It! first had to win a match against the defending champions, the Aces. Dig It! won the first game, lost the second, then returned full force to take the third game and move on to the final championship round against the Red Hots, a team of Stony Brook University employees.

The Red Hots won the first game against Dig It!, but the win didn't come easy: Dig It! made a comeback and went on to win the second game. The match was now even, the teams squared. In true champion fashion, though, Dig It! rallied and won the last game with a score of 25-15, entitling them to be declared as the "Town of Brookhaven Summer 2006 Volleyball Champions!"

Said Pratte, "We played really hard all season and were happy that we had advanced to the championship rounds, but we never imagined that we would claim the title! Taking a win from the Aces was no walk in the park because they are an excellent team. Everyone on our team played hard, but we still had a lot of fun. However, I admit that becoming the champions was the perfect way to end the summer."

Marie Van Buren adds, "We had a great time playing in a different environment and meeting new people. Of course, there was competitiveness, but mostly, all the teams had fun and enjoyed the camaraderie of the sport."

Interested in joining the BERA indoor volleyball league? Contact Travis Shrey, Ext. 7451 or shrey@bnl.gov. For a complete listing of BERA sports and activities go to www. bnl.gov/bera/. — Jane Koropsak

### **Volleyball News**

For its 2006-2007 season, the BERA Volleyball League resumes play on Monday, October 9. The League offers teams for players of every ability and skill level, so all are invited to come and join in the fun! All players are welcome to get warmed up for the season by playing open volleyball in the gym on Monday and Wednesday nights.

#### Captains' Meeting, 9/20

Captains interested in fielding teams for the League should attend the captains' meeting on Wednesday, September 20, at noon, in Berkner Hall, Room A. Bring a signed roster form with you.

For more information, visit the League's web site at www. vb.bnl.gov, or contact Marie Van Buren, Ext. 4727 or vanburen@ bnl.gov; or Travis Shrey, Ext. 7451 or shrey@bnl.gov.

#### Meet the 2006 Champs



UCB Roof Co. used a heavy equipment offense to lay the foundation of their victory over EZ-Pass in four sets to take the Open League A championship. UCB are: (standing, from left) Jonathan Laster, Art Sedlacek, and Travis Shrey; (sitting, from left) Dan Mullaly and Alain Domingo. Not pictured: Tom Hayes, Kevin Smith, Greg Marr, and Vincent Schoefer.



In spite of being a year older, New Blood held their League 2 title for a second straight year, defeating the Ball Hogs in five sets. New Blood are: (standing, from left) Tracy Blydenburgh, Tom Dilgen, John DeBoer, and Gloria DeBoer; (sitting, from left) Joe D'Ambra, Jesse Schmalzle, and Lou Tenreiro. Not pictured: Donna Schmalzle and Cindy Tenreiro.



Last Minute were punctual enough to defeat the Upton Ups in four close sets and take the League 3 championship. Last Minute are: (standing, from left) Enessa Fusco, Gary Polonski, and Scott Spencer; (sitting, from left) Linda Farmer and Debbie Brodbar. Not pictured: Tirre Farmer, Jennifer Graham, and Rich Alles.

#### **DOE Completes Five-Year Environmental Review**

DOE has completed a Five-Year Review for the BNL site, as required by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This is the first Five-Year Review of all the remediation work performed at the BNL site. The U.S. Environmental Protection Agency concurs that the remedies selected and implemented to date, as reported in this Five-Year Review, are protective of human health and the environment. The final report and additional information is available at www.bnl.gov/erd/.

#### Bus Trip to Bryant Park, NYC, 9/17

Ioin the Hospitality Committee for a "do as you like" bus trip to Bryant Park in New York City on Sunday, September 17. Tickets cost \$10 for adults and \$5 for children age 2-12. The luxury bus leaves the Recreation Hall at 9 a.m. and will leave the City at 6 p.m. for the return. To make reservations, contact Jing Rochman, 891-9430.

#### **TFCU Money Management Classes, 9/18**

Representatives from Teachers Federal Credit Union will talk to BNLers on how to use and manage checking accounts and general money management techniques, on Monday, September 18, at noon in the Recreation Hall. For more information about TFCU's on-site services, see www.bnl.gov/visitorinfo/onsite\_services.asp.

#### **New Gym, Pool Hours**

On Saturdays, the Gym & Pool will now be open 10 a.m. -2 p.m. **Renovations, Closures** 

Renovations have begun on the Gym & Weight Room floors. The room will be closed for at least two weeks to complete this work. Next week, 9/18-22, he pool & locker rooms will be closed for necessary steam repairs. For more information,

call Christine Carter, Ext. 5090.

... BERKNER HALL ...

#### CIGNA at BNL, Mondays

On Mondays, 10 a.m.-1:30 p.m., CIGNA representative Janice Petgrave will be available, by appointment only, in Human Resources, Bldg. 185, to assist CIGNA participants with claims issues that they have been unable to resolve themselves. To schedule a 30-minute appointment, call Linda Rundlett, Ext. 5126. Bring all pertinent documentation to the meeting.

#### CALENDAR

#### - THIS WEEKEND -

#### Today, Friday 9/15

Dance Social & 'Bolero' Workshop 7-11:30 p.m. B'haven Center. Admission \$15, includes twohour lessons with Giny Rae, 7:15 p.m., and cold food buffet, cookies, coffee. Rudy Alforque, Ext. 4733. See page 4.

#### Saturday, 9/16

#### **Concert: Lamont Sings Country**

8 p.m. Berkner Hall. Concert performed by Mary Lamont and her band, sponsored by BNL Music Club. Tickets \$15. All visitors 16 and over must carry photo ID. See page 4.

#### **Sunday, 9/17**

#### \*Bus Trip to Manhattan

9 a.m. Recreation Hall. Bus departs for Bryant Park drop off in Manhattan, leaves city at 6 p.m. Tickets, \$10/adults, \$5 children 2-12. Jing Rochman, 891-9430.

#### - WEEK OF 9/18 —

#### Monday, 9/18

#### Primer: Manage Checking, More

Noon. Recreation Hall. Teachers Federal Credit Union will explain how to use checking accounts, more. All welcome. See notice below, left.

#### Tuesday, 9/19

#### All Employee Meeting

1:30 p.m. Berkner Hall. All BNLers are encouraged to attend a meeting called by new Lab Director Sam Aronson to discuss the outlook for FY07, priority Lab projects, and challenges such as safety and cyber security.

#### Wednesday, 9/20

#### \*417th Brookhaven Lecture

4 p.m. Berkner Hall. Huilin Li, Biology Department, will talk on "Imaging Protein Machines That Break Down Proteins," research that could eventu-ally help in treating TB and Althoires's. All property learners Alzheimer's. All are welcome to this free talk. Visitors to the Lab of 16 and over must carry photo ID. See story, page 1.

#### Thursday, 9/21

#### \*Talk: Too Few Women in Science

Noon. Berkner Hall. Johanna Levelt Sengers, Scientist Emeritus, National Institute of Standards & Technology will talk on "The World's Science Academies Address the Under-Representation of Women in Science & Technology," All welcome to this BWIS talk. Visitors of 16 and over must carry photo ID. See page 2.

#### Friday, 9/22

#### \*Lunchtime Tour: Birds in the Woods

Noon. Berkner Hall lobby. See notice, page 2. All Lab community welcome. See page 2.

#### Saturday, 9/23

#### **BERA Trip to Belmont Races**

10:30 a.m. Leave BNL. \$40 includes a buffet and luxury bus. Leave Belmont Race Track at 5:30 p.m. Buy tickets at the BERA Store, Berkner Hall.

#### — WEEK OF 9/25 -

#### Monday, 9/25

#### **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.

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/.

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

SCIENTIFIC STAFF POSITIONS - The Center for Functional Nanomaterials (CFN) at Brookhaven National Laboratory (BNL) (http://www.bnl.gov/cfn) is pleased to announce new opportunities for scientific and technical employment beginning in the fall of 2007. In selected cases, openings will be available in Jan. 2007. The CFN is a science-based user facility funded by the US DOE Office of Basic Energy Sciences to provide state-of-the-art capabilities for the fabrication and study of nanoscale materials. The CFN will feature strong in-house scientific programs while offering broad access to its capabilities and collaboration through an active user program. The CFN seeks to impact the nation's energy security through world-class interdisciplinary research in three focus areas, including Nanocatalysis (Synthesis and characterization of in situ reactivity of nanostructured cata-lysts), Electronic Nanomaterials (Fundamental excitations in low-D materials, especially heterogeneous nanostructures and strongly correlated systems), and Biological and Soft Nanomaterials (Self-organization in soft and hybrid functional nanosystems). Corresponding state-of-the-art laboratory facilities are being developed in Nanopatterning, Advanced Electron Microscopy, Proximal Probes, Theory and Computation, Ultrafast Spectroscopy, Materials Synthesis, and Small Angle Scattering at the NSLS. Full operations are to begin in April 2008. Outstanding individuals are sought in all of the Laboratory facility and theme areas at levels ranging from group leader and senior scientist to junior scientist and post doc. A brief summary of selected job areas is given below. A complete list of openings and full details concerning applying for these positions may be found at http://www.bnl.gov/cfn/jobs.

- Electro-catalysis/catalysis of in situ systems, including fuel cells, using surface science, electrochemistry, and synchrotron techniques
- In situ electron microscopy of chemical reactions, oxide nanoparticles, and other nanostructured objects
- Spectroscopic STM of surface reactions/catalysis and nanostructured electronic nanomaterials
- Real-time LEEM/PEEM of surface processes
- Inorganic/materials chemistry, nanoparticle synthesis
- Synchrotron-based, soft-matter/biomaterials nanoscience
- Ultra-fast laser spectroscopy
- Nanoscale theory and computation
- Organic/macromolecular chemistry of surfaces, supramolecular assemblies and hybrid nanosystems Single-molecule optical methods for
- soft-matter/biomaterials Experimental soft matter phys
- biophysics Plasma/vacuum processing technol-
- ogy and nanofabrication Focused ion beam microscopy and
- related analytical methods
- Clean room engineer

Qualifications for these positions include a Ph.D. in the physical or life sciences, a strong record of technical achievement, and the demonstrated ability to conduct creative, independent research. Successful candidates will also have excellent communication and interpersonal skills, as well as the ability to work in a team and interact effectively with a broad range of colleagues. Interested candidates should respond to http://www.bnl. gov/cfn/jobs, select the scientific areas of interest, and respond by including a detailed CV, publication list, and the name of three references.

MK3592. POSTDOCTORAL RESEARCH ASSOCIATE - Requires a Ph.D. in physics, electrical engineering or a related discipline with emphasis on laser technology,

hands-on experience in the design and construction of laser systems, laser resonators, the use of diagnostics for characterization of ultrashort laser pulses, and electro-optic technique. Knowledge of a CO, gas laser technology is desirable. Will participate in designing and component testing of a multi-stage picosecond CO, laser system for high-energy physics and accelerator application. Under the direction of I. Pogorelsky. Physics Department. MK3593. POSTDOCTORAL RESEARCH ASSOCIATE - Requires a Ph.D. in high energy or nuclear physics and experience with object-oriented programming. Experience with Geant4, detector simulation and data analysis, and neutrino physics is very desirable. Position is with the Electronic Detector Group. Will participate in the activities, which includes operation and analysis of the running MINOS experiment, simulation, design and analysis of the Daya Bay reactor antineutrino disappearance experiment. The Daya Bay experiment strives to reach a sensitivity to the neutrino mixing parameter sin<sup>2</sup>2q<sub>13</sub> of an order of magnitude better than any previous experiment. Will participate in simulations of future possible long baseline experiments with very large detectors in underground laboratories is also expected, as is travel to China and/or Fermilab. Under the direction of E. Jaffe. Physics Department.

JH4272. Advanced Applications Engineer (I-7) - Requires a bachelor's degree in computer science, information technology, or a related discipline, and 5+ years of relevant experience. Candidate must possess excellent communication, strong problem solving and broad technical skills, together with demonstrable experience with all or most of the following: Visual Basic, ASP, NET, IIS, SQL Server, Oracle, ADO, COM, HTML, CSS, Javascript, Crystal Reports, Web Services, and XML. Some prior experience as part of a medium- or large-sized software development team is preferable. The ability to handle multiple priorities is essential and adherence to strict deadlines will be required. With limited work direction, the successful candidate will participate in developing standards, writing specifications, designing, coding, testing, supporting, and documenting business applications. Responsibilities will include maintaining and enhancing existing National Synchrotron Light Source and National Synchrotron Light Source-II Project systems as well as the development of new applications. Will also be required to coordinate with management, support staff, technical personnel, vendors, and users to solve problems as necessary. National Synchrotron Light Source.

TB3695. TECHNICAL SPECIALIST (T-2. reposting) - Requires an AAS degree in electronic technology plus at least four years of relevant work experience. Must also have a working knowledge of digital logic circuits, surface mount soldering skills, and familiarity with electronic test equipment. Good communication skills and experience with AutoCAD LT or other software is desired. Under minimum supervision, the candidate will fabricate and install cables, test and repair circuit boards to the component level, build prototype circuits from schematic drawings and assemble chassis using basic mechanical fabrication techniques. Must be available to work overtime during nonscheduled hours to respond to C-AD operations as required. Collider - Accelerator Department.

TB4253. PROJECT ENGINEER II (P-7, reposting) - Requires a BS in health physics/industrial hygiene/industrial safety or closely related technical field, seven years of experience in ES&H, and one year of experience in supervising ES&H technicians or professionals. Preferred qualifications include NRRPT registration, certification as a Hazardous Material Manager (CHMM) or Certified Safety Professional (CSP). Will assist the line organization in the full implementation of BNL ES&H Program requirements with an emphasis on radiological controls and will provide ES&H support to the Laboratory's National Synchrotron Light Source operations. Radiological Control Division.

RM4206, OFFICES SERVICES ASSISTANT (CW-2) - Requires AAS degree or three years' equivalent related experience, and knowledge of Excel, Word and accounts payable processing. Working knowledge of personal computers and exposure to computerized business systems is necessary. Accounts Payable/Fiscal Division.

#### **Motor Vehicles & Supplies**

06 490 GSXR 600 - Red/black, ext. warr. incl. 490 mi. \$6,900/neg. David, Ext. 7277. 04 VW JETTA GLS - 1.8 turbo, Tiptronic a/ t, all pwr, m/roof, heated seats, day lights, CD, more. 26K mi. \$15,000/neg. Ext. 7277. 04 CHEVY Z71 SUBURBAN - leather, m/ roof, pwr & htd seats, CD, on-star, tow pkg, loaded. 28K mi. \$28,000/neg. 807-9916. 04 CHEVY S10 PICKUP - black, Crew

Cab. 4wd, all pwr, 6 cd changer, tow pkg, h/way miles. 60K mi. \$13,000. 821-1271. 04 CROSSROADS CRUISER - 30' trailer, dbl. slide, qu. br, lg. bath, bunks, storage, Used only 5 times. \$19,500/neg. 924-0139. 02 TOYOTA HIGHLANDER - 6 cyl., AWD, cd, all pwr, tow pkg, Homelink sys, side AB, 100K warr. 72K mi. \$16,750/neg. Ext. 7277.

01 HYUNDAI ACCENT - 5spd., a/c, cd/am/ fm, 2dr., hbk. 69K mi. \$3,800. Ext. 4698. 00 CHEROKEE 30 - 5th wheel, 14' slide out, bunk beds, slps 8, swvl chr, all opts, vg cond. \$12,500. Rich, Ext. 7160 or 929-8294. 00 CHEVY SILVERADO 2500 PICKUP - 4x4, ext. cab. 3rd dr. 8' western pro-plow, tow pkg, all pwr. 97K mi. \$11,000/neg. 702-6131. 00 MERCURY SARLE LS - "Premium" dk blue, gray Ithr. int. 3.0 Duratec V6, loaded, runs v. well. 145K mi. \$4,400/neg. Ext. 4748. 97 MERCURY TRACER - dk green, 4 cyl, 4 dr, a/t, a/c, 2.0 eng., great gas mileage, p/sp/bwagon. \$1,300/neg. 294-0516.

96 JEEP GRD CHEROKEE - 4x4, 6 cyl, F pkg., tow pkg., garaged, new Mich. tires, 122K mi. \$4,400. Jim, Ext. 7859 or 924-7374. 96 JEEP CHEROKEE - runs well, 20 mpg. 150K mi. \$2,300/neg. Daniel, 236-3542. 96 TOYOTA AVALON XLS - 3.0L V6, ABS, all pwr, cd, sunrf, excel mech cond, garaged, hwy mi. 231K mi. \$4,200/neg. 325-8476.

95 OLDSMOBILE AURORA - leather int., runs well, very comfy, 8-cyl Cadillac eng. 85K mi. \$2,700/neg. Steve, Ext. 8137.

93 TOYOTA TERCEL - Blue, a/t, a/c, 4 dr, new batt. & spk plgs, runs well, excel cond. 109 mi. \$2,000. Das, Ext. 3114 or 344-1064. 91 INFINITI G20 - 4 cyl. 5spd. abs. 181K mi. \$600/neg. Ext. 7505.

84 CHEVROLET CORVETTE - excellent condition. Call for information. \$7,000. Richard, 929-0961.

83 VIKING LIL GASSER - Pop-up Camper, sleeps 6, gd canvas & cushions, under 1000 lbs. for easy tow. \$695/neg. Ext. 2788.

TIRES & RIMS - (5) Michelin XTerrain P245/70R16 tires, mounted on alum. alloy Isuzu Rodeo rims. \$400. Ext. 4605.

#### **Boats & Marine Supplies**

25' CRUISER INC. CRUISER - rebuilt Chevy 350 I/O, lo hrs, sleeps 6, head/shower, galley, swm pltfm, extras. \$5,500. 208-3906. 27' C&C MK1 - excel. cond. 30hp A-4 in-

board. Incl: steel cradle on trailer. In water rdv to sail. \$12,500/neg. Ext. 3140 or 298-7022. 27' PEARSON P27 - 1988, 3'4" draft, wing keel, furler, wheel, aft cabin, aft head w/shwr. diesel, v.g. cond. \$17,900/neg. Ext. 2788.

21' STRIPER - Seaswirl. 97. Volvo Penta. cc. vhf. ff. aps. swm pltfm. hdtop enc., mvg. mst sell. \$12,500. David, Ext. 5656 or 369-3445.

#### Furnishings & Appliances

AIR CONDITIONER - 15,000 BTU 220 volts Fridgidare, window mount, \$25. Dennis, Ext. 4028 or 631-375-8519.

ENTERTAINMNT CTR - blk lacquer, display & storage units; mirrored/lighted; excel cond, orig price \$3,500, ask \$750. 208-3906.

BUNK BED SET - incl: 2 beds, bureau, desk, chair, 2 cubbies, 2 twin mattresses, 2 bunkie boards. \$300. 591-1265.

CRIB & HI-CHAIR - both solid wood. Crib \$125, nds mttrss; hi-chr \$50, 208-3906. DINING RM & BED RM SETS - Drexel Heritage 6 chrs, tbl, brkfrnt, maple 7 pc Kline/ Ethen Allen, Robert, Ext. 4867 or 654-3989. FURNITURE - Loveseat sofa w/ Surefit slipcover, good cond., ask \$50. Jinsuo, Ext. 2586 or 981-2056.

BEDRM SET - cstm. gray Formica, king pltfrm bed, attached storage, dressers, mirrored/lighted, L-shpd, \$1500. 208-3906. PIANO - Emerson Upright, great condi-

tion, asking \$1,200. Bob, Ext. 4867. PING PONG TABLE - on whis, folds for sing. play, paddles incl, \$35, u pick up. 208-3906. TV CONSOLE - light oak, 4' h, 41" w, fits up to 30" TV. Excel. cond. \$150. 758-7002.

#### Audio, Video & Computers

DELL PC - P4 2.4 Ghz: 75 Gb HD: 256 Mb RAM; DVD Drive; CD-RW Drive; 15" CRT; Windows XP \$250. Steven, Ext. 5694. CAR STEREO - in-dash Durabrand CD/

MP3/CDR/CDRW playback w/MP3 disp, 45Wx4, \$100. Ext. 7842 or 434-5824. PIONEER CAR STEREO - 50W/chCDR/ RW/MP3/WMA playback, \$200. 434-5824.

SANSUI STEREO SPKRS - wood cabnts: 26"x16"x12", 12" woofr, 2x5" midrge, 2x2.5 tweeters, \$25 pr. Ext. 2159 or 331-7048. TV - Zenith 36". PIP, works well. \$100.

Linksys wireless-G router w/ speedboost. New. \$40. Steve, Ext. 4719.

#### Sports. Hobbies & Pets

WETSUIT - Lady's O'Neill 3/2MM; sz 12, runs small; lightly used, mint. \$50. Ext. 7264. NORDITRACK & TUNTURI BIKE - Gently used. Best offer, 744-8386.

SHIH-TZU PUPPIES - Adorable, 6-wk.old pups, male & female. 745-6721. SKIS - 3 sets binding & skis: 1 set Fiero 180s; 1 set Rosignol 175s; 1 set Rosignol

#### Tools, House & Garden

158s; \$25/ea set. 208-3906.

LAWN TRACTOR - 11.5 HP B&S, 36" deck. \$250 or best offer, Ext. 5993 or 929-5945. SNOW BLOWER - Craftsman, 5.5 HP 4cycl, 24", 3-spd; less than 1 yr. old, used 2ce, moving. \$450 neg. John, Ext. 2667. SPREADER - Scotts Evengreen drop spreader. Excellent. \$10. John, Ext. 4028.

VW BUG hood, 1968; basket ball hoop, as is. You pick up, Belllport. Ext. 2346.

#### Friday Nights Live! Dance Social Tonight, 9/15

The following events organized by the BNL Social & Cultural Club will be held in the Brookhaven Center. For more information, contact Rudy Alforque, Ext. 4733, alforque@bnl.gov.

Tonight: Friday, 9/15, 7 - 11:30 p.m. Dance Social and "Bolero" workshop with Giny Rae. Admission of \$15 includes cold food buffet, cookies, coffee, and two hours of lessons from 7:15 p.m. General dancing with DJ music up to 11:30 p.m.

Friday, 9/22, 7 - 11:30 p.m. Dance Social and "Bachata" workshop with Rudy Alforque. Admission of \$15 includes cold food buffet, cookies, coffee, and 2 hours of lessons from 7:15 p.m. General dancing with DJ music up to 11:30 p.m.

#### Mary Lamont Sings Country, 9/16 In concert sponsored by the BNL Music Club

ountry singer Mary Lamont ✓and her band will give a concert in Berkner Hall this Saturday, September 16, at 8 p.m. Sponsored by the BNL Music Club, the concert is open to the public. All visitors to the Lab age 16 and over must bring a photo ID.

Born in Ontario, Canada, and now Long Island-based, Mary Lamont has been called "Queen of Long Island Country" by Newsday and the Christian Science Monitor. Lamont and her band have recently completed a tour of China, but they usually perform closer to home, at the Jones Beach Boardwalk Bandshell, the North Fork Theatre, and the Inter-Media Art Center, among



other venues. The New Jersey Country Music Association twice voted Lamont "Female Singer/ Songwriter of the Year," and she has received several honors from the American Society of Composers, Authors and Publishers.

Tickets for the show cost \$15, and may be purchased through www.ticketweb.com, at the BERA Store, or at the door on the evening of the performance.

#### **Fitness Programs**

Tuesday & Thursday, noon - 1 p.m., Recreation Hall Tuesday session: 9/12 - 10/31Thursday session: 9/14 - 11/2 \$90/8-week session of twice a week, includes use of Shirley location.

#### **Aqua Aerobics**

Tuesday & Thursday, 5:15 - 6:15 p.m., BNL Pool, 9/26 - 11/16 8-week session, \$20 for once a week, \$40 for twice a week

#### Yoga/Pilates

Monday, 9/18 - 11/6, 12:15-1:15 p.m., Recreation Hall Wednesday 9/20 - 11/8, 5:15-6:15 p.m., Recreation Hall 8-week session, \$65 for once a week, \$80 for twice a week For more information, contact Joanne Rula, Ext. 8481.

#### Miscellaneous

BANGLE BRACELET - 14 K gold, safety clasp, orig value in 1970s, \$500; original receipt incl. \$150. Diane, Ext. 2347. BICYCLE - Girl's, 12" wheel, purple, 1 yr old, ask \$20. Das, Ext. 3114 or 344-1064. IN-GROUND POOL COVER - 18 x 36. Used only one season. \$50. 849-2153. OIL BURNER HEAD COMPLETE, AERO -Efficent Burner, \$ 85, like new condition. Joe, Ext. 3783 or 929-8321.

SWING SET - Wooden, 3 position, w/ slide, tower, rope ladder, fireman's pole, monkey bars. \$50. 422-5881.

#### Yard & Garage Sales

MEDFORD - Sat. 9/16, 9:30-5, 22 Petty La. off N. Ocean Ave. just S of LIE. Rain date Sun. 9/17. Ext. 2733 or 395-6784.

#### Wanted

FIREARMS - old or new, any type, fair price paid. Joe, Ext. 3783. FRIDGE - v. small, gd. cond. Ext. 2346.

#### Lost & Found

FOUND: DODGE KEY REMOTE - found by Bldg. 911. Ext. 5090.

#### **On-Site Services**

ON-SITE SERVICE STATION - We can provide boat & motorcycle starters, alternators, etc., and all vehicle services. NYS inspections, new batteries, tires, repairs, while you are at work, Ext. 4034.

For Rent EAST MORICHES - 1 bdrm apt. in large historic home, walk to water & town, sunporch, 2 priv. entr., parkg, nonsmoker, refs. \$900/mo.+util. Ext. 4979 or 513-6688.

FARMINGVILLE - 1 bdrm in large house, share bath w/2, full kitch, elec incl., avail. 10/1. \$450/mo. Ben, 513-8275.

MATTITUCK - large apt. on the water. quiet area w/nice view. l/r kit. combo. bath, b/r and den. Lg. deck, 35 min. to Lab. \$850/mo. 298-5625.

MILLER PLACE - share large furn. non smkg Col. home, prof. resid. area, cac, tv, cable, internet, deck, fenced vard, own w/w bdrm. 10 mi. to Lab. \$650/mo. 744-8386. MILLER PLACE - Lvg rm, bedrm, kitch, bath/shower. 2yrs old. Priv. ent. & deck. electric, water, heat, cbl., 1 mo rent, 1 mo deposit. \$850/mo. incl. all, 849-3582.

PATCHOGUE - small 2-bdrm. cottage, fenced yard, washer, dryer, \$1,300/mo., utilities extra. 475-1961.

ROCKY POINT - 1 bdrm. apt., sunny 2nd flr., priv. ent./dr/way, 1 mo. sec., no smkg/pets, util. not incl., \$850/mo. Lisa, Ext. 7288 or 821-3287.

SELDEN - Ig. room, 6A access, nice area. \$160/wk. 846-6132.

SHIRLEY - Lg, 1st Flr, a/c, 1BR, 1 Bath, eik, priv ent., privacy fenced yard, utils & cable incl. Avail 10-1. \$900/mo. 399-4879.

SHOREHAM - immac. 1-bdrm. apt., sep. ent., kit., & bath, big yard, sep. therm, cable TV, util. inc., 1 mo. sec. No smkg./pets.; 7 min to Lab. \$795/mo./neg. 747-3495.

SHOREHAM - 1 lg. bdrm, office, fully carpeted Ir, kitchen, full bath, cable, internet access, pvt. ent., prof. couple, no smkg./ pets, 8 mi. to BNL. \$1,200/mo. 445-7838.

SHOREHAM - share non-smkg. house, own lg. furn./unfurn. bdrm., 7 miles to BNL. \$650/mo. 744-3543.

YAPHANK - studio apt, 4 mi. to BNL, furn., hi speed Internet. Avail. Oct 1, \$750/mo. 924-3049.

WESTMINSTER, CO - 2-bdrm. condo, a/c, firepl., loft, vaulted ceilings, igp, clubhouse, renov. bath & kitchen, terrace, mtn-view, garage, opt. to buy. \$1,000/mo. Ext. 2347.

#### For Sale

CENTER MORICHES - 3-bdrm., 2-bath contemporary ranch plus sep. 1-bdrm. apt., fully updated, on 1/2 acre, close to Lab. \$539.000, 878-6220, leave message.

KINGS PARK - All new 2-family 11 room, hi ranch, 4 bed, 2 bath, oak firs, eik, ss/appls, cathd ceiling, sky lites, move-in cond. \$479,000 Richard, Ext. 5319 or 835-8309.

RIDGE - 4 bdrm, 21/2 bath Colonial. New kitchen, New master bath. Just finshed full bsmt w/full bath. Lg bckyd w/pool. 3 miles to Lab. \$479,900. 252-3356.

SOUND BEACH - water view, 3 bdrm, 2 full bath, l/r, d/r, fam/r w/fp, sky lights, deck, patio, a/c c/vac, ~ 4k taxes. \$455,000 Ron, Ext. 7588 or 516-769-0132.

SOUND BEACH - 3 bdrm, 1-1/2 bath, new Col. Lg eik, Fireplace, Bsmnt, level corner lot. Taxes \$2,900. \$350,000. 821-1271.

WADING RIVER - 4 bdrm, 2 bath. Fenced back yard, walk to private beach. 929-4993 \$339,000/neg. Morris, Ext. 4315.

#### In Appreciation

To my friends and co-workers at BNL thank you for your thoughts and prayers in the loss of our mom. It helped us through a tough time. - Daniel Galligan



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Liz Seubert, editor John Galvin, reporter Roger Stoutenburgh, photographer OntheWeb, the Bulletinis located a twww. 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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