

## Leonard Newman Retiring After 51 Years at BNL

Leonard Newman, a senior scientist in the Environmental Sciences Department, joined Brookhaven Lab in December 1957, soon after he received a Ph.D. in chemistry from the Massachusetts Institute of Technology. The Laboratory was ten years old and just starting to build its reputation as a world-class institution. Newman was about to embark on a long and fruitful journey as a scientist who made significant contributions to atmospheric chemistry, and, later on, to BNL's Laboratory-Directed Research & Development Program.

Newman is the second longest-term employee at the Laboratory. Scientist Emeritus James Reilly, Energy Sciences and Technology Department, joined BNL in 1956, over a year before Newman.

Newman's retirement date is March 23, 2009, but he won't break ties completely with BNL, as he still plans to organize the biennial Atmospheric Chemistry Colloquium for Emerging Senior Scientists (ACCESS). In August of 2009, ACCESS will be hosted by BNL.

"I've organized all of the ACCESS meetings except the first two since the colloquium's inception in 1991," said Newman. "I will continue to do so. But before that, I'm taking a vacation to travel with my wife to Morocco for pleasure, and to Israel, to visit friends and family."

Newman started his career studying solvent extraction principles of radioactive elements

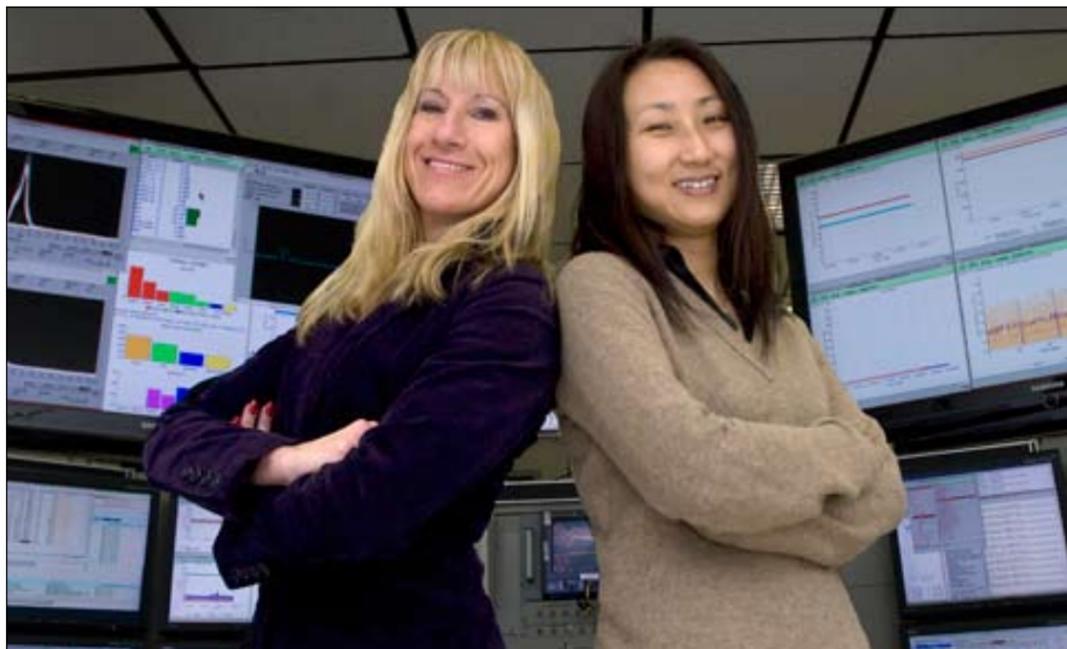


Roger Stoutenburg D0220/08

called actinides, and, by 1964, he became head of the Radiochemical Analytical Group, which performed chemical analyses for nuclear reactor development, including nuclear fuel processing.

In the mid-1960s, DOE consolidated nuclear reactor development activities in other national laboratories. Newman then moved into atmospheric chemistry, a completely new area for him and the Laboratory. He investigated power plants' sulfur and nitrogen emissions, which are air pollutants. Flying over power plants, Newman and collaborators used a tracer that he developed to measure the oxidation rate of sulfur and nitrogen oxides, and, by June 1967, they issued their first report on their data. They were the first scientists to perform power-plant plume studies.

See *Newman* on pg. 2



Driving RHIC this year in the Main Control Room are Fulvia Pilat (left) and Mai Bei, both of the Collider Accelerator Department.

Joseph Rubino D234/09

## 2009 RHIC Run Features New Energy Milestone For Exploring Proton Puzzle

Physicists working at the Relativistic Heavy Ion Collider (RHIC) are exploring the puzzle of proton spin as they begin taking data during the 2009 RHIC run. For the first time, RHIC is running at a record energy of 500 giga-electron volts (GeV) per collision, more than double the previous runs in which polarized proton beams collided at 200 GeV.

Steven Vigdor, Associate Laboratory Director for Nuclear and

Particle Physics, said, "Physicists are interested in this higher energy because they can make measurements of polarized proton spin over an extended range of momentum of the quarks and gluons inside the proton. In particular, RIKEN physicists are interested in it because it will help them to meet a performance milestone they set for 2011 — the first measurements of W boson production in polarized proton collisions."

W bosons are massive subatomic particles that can only be produced with interesting rates at the new RHIC energy range of 500 GeV. Vigdor explained that finding these particles would provide insight into the spin preferences of "sea quarks," which are quark-anti-quark pairs that pop into and out of existence in protons. In addition to three regular quarks that are always present in protons, and to

See *2009 RHIC Run* on pg. 3

## Eight Brookhaven Scientists Are Granted Tenure

Brookhaven Science Associates (BSA) granted tenure effective December 1, 2008, to eight Brookhaven scientists. They are Elaine DiMasi, National Synchrotron Light Source; Rita Z. Goldstein, Medical Department; Yangang Liu, Environmental Sciences Department; Hong Ma, Physics Department; Cedomir Petrovic, Condensed Matter Physics and Materials Science Department (CMPMS); Triveni Rao, Instrumentation Division; Tonica Valla, CMPMS; and Paul Vaska, Medical. Tenure appointments are granted by action of the BSA Board after a rigorous selection procedure overseen by the BSA Science & Technology Steering Committee. In making tenure decisions, the BSA Board is advised by members of the Brookhaven Council, an elected body that advises the Director on matters affecting the scientific staff. The Bulletin is featuring the newly tenured scientists in alphabetical order: Elaine DiMasi was profiled in the Bulletin of February 27; Rita Z. Goldstein and Yangang Liu in the Bulletin of March 13; below are summarized the contributions of Ma and Petrovic.

### Hong Ma

Hong Ma, Physics Department, received tenure for his significant contributions to the understanding of electroweak physics through measurements of rare kaon decays, as well as his leadership in the



Hong Ma

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ATLAS physics program at the Large Hadron Collider (LHC) in CERN, Switzerland.

Ma received his Ph.D. at the California Institute of Technology in 1988 and joined BNL as a research associate in 1989. He became an assistant physicist in 1990, an associate physicist in 1992, with a Superconducting Super Collider Fellowship 1990-91, and was named a physicist in 1994. In 1997, he received a continuing appointment.

At BNL, Ma first worked in the rare kaon decay experiments E777 and E851 at the Alternating Gradient Synchrotron. He then played a central role in E865, which required a new beamline and detector apparatus. In addition

to his leadership in designing, mounting, and operating E865, Ma led the analysis of key kaon decays, obtaining results that resolved previous apparent discrepancies with the Standard Model (SM), the accepted model of how matter behaves, and deepened understanding of chiral perturbation theory. Another new E865 measurement for which Ma was key also resolved a SM parameter, the Cabibbo angle, but contradicted longstanding existing measurements. Ma's work was confirmed by two experiments elsewhere and is recognized as an outstanding achievement.

Currently, Ma is co-coordinator of software and data preparation

See *Ma* on pg. 2



Cedomir Petrovic

Roger Stoutenburg D08402/08

### Cedomir Petrovic

Cedomir Petrovic, a physicist in the Condensed Matter Physics & Materials Science Department (CMPMS), was awarded tenure for his world-class research in materials synthesis.

Said CMPMS Department Chair Peter Johnson, "Cedomir has established an international reputation for the synthesis of new materials, an activity of critical importance for both BNL and for condensed matter physics research in the U.S. One of his most important achievements has been his synthesis and characterization of the heavy-fermion system cerium-cobalt-indium (CeCoIn<sub>5</sub>), a superconductor

with the highest known superconducting temperature in this class of materials. His two papers reporting this discovery had outstanding impact and have been cited more than 253 and 245 times each."

Petrovic has co-authored 62 journal articles, averaging over 10 publications per year in 2004-07. These include two articles in *Science*, 14 in *Physical Review Letters*, three in *Europhysics Letters*, and 20 in *Physical Review B*.

At BNL, Petrovic has built his own lab for exploratory synthesis of new superconducting materials. In addition, the quality and size of the crystals

See *Petrovic* on pg. 2

## Reimbursement Account Deadline Reminder: 3/31

All claims on contributions made to health care or dependent day care reimbursement accounts during the past calendar year of 2008 must be made by March 31, 2009. Any contributions that remain unclaimed will be forfeited, in accordance with Internal Revenue Service regulations. Remember that many over-the-counter medicines qualify for reimbursement under the health care account. Employees can submit claims for any qualifying expenses incurred in 2008 until March 31, 2009.

## Asian Pacific American Association News

Several events of interest are coming up at the Charles B. Wang Center at Stony Brook University — members of BERA's Asian Pacific American Association (APAA) and others are visiting the website at <http://www.sunysb.edu/sb/wang/> to get the latest information.

On Thursday, March 26, at 7 p.m., Riz Mirza will solo in *Koranic Fatigue* with irreverent humor, scalding insight, and deft character sketches. \$15 general seating, \$10 students, seniors.

On Saturday, April 25, a Cherry Blossom Festival will be held, noon-5:30 p.m. Other events are detailed on the website.

## Concert, 4/11 Duo To Perform Guitar, Harmonica With Same-Day Workshops Also Offered

Acoustic duo Paul Rishell and Annie Raines will give a concert on Friday, April 10, at 8 p.m. at the Brookhaven Center. Sponsored by the BNL Music Club, the concert is open to the public. All visitors to the Lab 16 and older must bring a photo ID.

Rishell and Raines met in a pub in Boston in 1992 and have racked up thousands of miles on musical tours in the United States and Europe ever since. Country blues guitarist Rishell and harmonica ace Raines have released several CDs including "Moving to the Country," the winner of the 2000 W.C. Handy Award for best acoustic blues album of the year. In addition to performances on TV, radio, and at festivals and concert halls internationally, the two also sponsor musical workshops and seminars.

Tickets cost \$15 in advance or \$20 at the door. Purchase tickets at the BERA Store, or through [www.ticketweb.com](http://www.ticketweb.com). Advance ticket purchase is strongly recommended.

In addition to the concert, Rishell will offer an intermediate and advanced guitar workshop and Raines will offer a harmonica workshop on Saturday, April 11, at the Brookhaven Center. Both two-hour workshops will begin at 2 p.m. and each is limited to 10 places. The cost is \$40 per workshop.

— Jane Koropsak

# Middle School Science Bowl at BNL

## R.C. Murphy Jr. High School Wins 1st, 2nd Prizes Longwood Jr. High School Takes 1st Prize In Hydrogen Car Challenge

Teams from R.C. Murphy Jr. High School won first and second place at the Regional Middle School Science Bowl held March 7 at BNL. One hundred students from 15 Long Island middle schools participated in the question-and-answer academic tournament designed to test students' knowledge of life science, physical science, mathematics, earth science, and general science.

Commack Middle School won third place in the Science Bowl academic contest, and Long Island Lutheran Middle School won fourth place.

Longwood Jr. High School won first place in the hydrogen fuel-cell model car competition, in which students design, build and race model cars using energy from a hydrogen fuel-cell. The team's car raced down the ten-meter track in 4.37 seconds. The team from Bellport Middle School took second place, with 4.87 seconds to send their car down the track, and Eastport/South Manor Middle School took third place, with their car speeding down the track in 5 seconds.

The Regional Science Bowl at BNL is part of the National Science Bowl® coordinated by DOE's Office of Science. In 2008, more than 3,000 students participated in 36 regional events throughout the nation. By participating in this "Jeopardy"-style academic contest and model hydrogen fuel-cell car competition, students are encouraged to excel in science and math and to pursue careers in those fields.

Each student in the winning teams received a medal, and each winning team received a trophy for its school. R.C. Murphy Jr. High School will represent the Long Island region in the National Science Bowl®, which will be held in Washington, DC, April 30 — May 5. DOE will fund the team's trip.

— Diane Greenberg

### Newman from pg. 1

In 1978, Newman was appointed head of the Environmental Chemistry Division. Newman and his colleagues developed analytical techniques for measuring the concentration and composition of atmospheric pollutants, among other studies.

During this time, the focus of much of the division's research was on acid rain, caused by industrial emissions of sulfur and nitrogen compounds that react in the atmosphere to form environmentally harmful acids. Brookhaven's participation in major field studies and its expertise in acid-rain measurements made the Laboratory a major player in the understanding of the phenomenon. BNL's research, in part, led to U.S. legislation in the 1980s that limited sulfur emissions to the atmosphere.

Newman recalled that, early on, departments received block funding for research, and scientists did not have to write individual proposals for funding specific projects. In fact, he said, "Postdoctoral researchers could work on whatever interested them."

Reflecting on the staff he hired, Newman said, "One of my major accomplishments is hiring very smart, talented people." Among those he was proud of hiring, he named Peter Daum, Jack Fajer, Steve Feldberg, Robert McGraw, Stephen Schwartz and Suresh Srivastava.

In 1978, Newman took an unofficial trip to China, organized by his wife Jacqueline M. Newman, a well-known expert on Chinese cuisine. There he introduced himself to the community of environmental scientists, and these new contacts eventually led to productive scientific collaborations with BNL. In 1980, he independently organized and led the first delegation of atmospheric scientists to visit

### Defensive Driving Course in Two Parts, 3/23 & 26

The next six-hour Defensive Driving (Point & Insurance Reduction) course will be held in two parts on Monday and Thursday: March 23 and 26, in the Brookhaven Center South Room, from 6 p.m. to 9:15 p.m. The course is open to BNL, BSA, and DOE employees, facility-users, and their families. The cost is \$38 per person. Preregistration is required. To register, call Ed Sierra, 821-1013, and leave a message. Include your phone number. For more information, call Sarah Wiley, Ext. 4207.

various institutes in China. Among these were the Institute of Atmospheric Physics at Peking University in Beijing, where the contacts he made led to his organization of the first global and regional environmental atmospheric chemistry meeting, which took place in 1989.

In 2002, Newman took on a new challenge. He became Director of the Laboratory's LDRD program, promoting highly innovative and exploratory research that fits into BNL's mission. During Newman's almost eight years as head of LDRD, the Laboratory increased the program's funding from about \$5 million to over \$11 million annually, helping it to grow from a small initiative to a model program that plays a key role in the Laboratory's research agenda. Under his leadership, the program nurtured innovative research in every major area of scientific discovery at BNL, including physics, energy and environmental research, national security, life sciences, and light sources. At the same time he also formulated and directed the Gertrude and Maurice Goldhaber Distinguished Fellowship Program, which has brought many talented, young scientists to work on exciting research at BNL.

Aside from reminiscing about the scientific highlights of his career, Newman recalled the sense of "family" he felt about BNL, especially during the early days of his career. "I used to host an annual barbecue at my home for my division, and it is still fun to meet the families of the people who worked for me and listen to their fond remembrances of those parties."

In the future, Newman will have more time for barbecues, travel, and his other interests. But once a week, even in retirement, he'll be coming back to his office at BNL to continue on the productive path he took 51 years ago.

— Diane Greenberg



With their coaches Robert Haas (right) and Patrick McManus (left) are the R.C. Murphy Jr. High School first-place winners of the Middle School Science Bowl at Brookhaven Lab: (from left) John Connor, Akilesh Tangella, Kirpal Kochar, Upasna Malhotra, and Harrison Li.



With their coaches Karen Newman (right) and Michaelann Janssen (left) are the first-place winners of the hydrogen fuel-cell model car competition from Longwood Jr. High School: (from left) Daniel Chaffkin, Shane Lewis, Indranil Mitra, Aidea Downie, and Valentino Gotay.

### 'Investment Strategy in Current Economy' TIAA-CREF Seminar, 3/25

On Wednesday, March 25, from noon to 1 p.m. in the Hamilton Seminar Room, Bldg. 555, a TIAA-CREF representative will conduct a seminar on "Developing an Investment Strategy" followed by a Q&A session. Topics to be covered will include the current state of the economy, what can be done with investments, defining goals and time horizons, evaluating risks, selecting the appropriate investments, diversifying holdings, and maintaining a portfolio.

### Ma from pg. 1

for the liquid argon calorimeter in the ATLAS experiment, an international collaboration of about 2,000 scientists. BNL has principal responsibility for the design, construction, and operation of the liquid argon calorimeter, one of the main elements in the detector. He is also the coordinator for the US ATLAS Analysis Support Center at BNL.

Said Tom Ludlam, Physics Department Chair, "Hong is a highly accomplished particle physicist, who can conceive and launch new initiatives. He has the rare ability to extract correct results even if they are unexpected and disagree with current consensus. His significant scientific accomplishments and internationally recognized leadership in the ATLAS experiment fully warrant his promotion to tenure."

### Petrovic from pg. 1

he makes have been said to hold the absolute record for the purest and best single crystals of a heavy fermion compound or any other correlated electron material. He produced the world's largest crystals of compounds of ytterbium-rhodium-silicon (YbRh<sub>2</sub>Si<sub>2</sub>) and cerium-cobalt-indium (CeCoIn<sub>3</sub>), enabling a series of inelastic magnetic neutron scattering experiments to be done for the first time, and he has contributed to the synthesis and characterization of many other materials of interest.

Petrovic received his Ph.D. in physics from Florida State University in 2000, and he joined the BNL Physics Department as an assistant physicist in 2002. He was promoted to associate physicist in 2004 and physicist in 2006. He moved to the new CMPMS department and is currently in the molecular beam epitaxy group.

### Brookhaven Retired Employees Association Upcoming Events

#### Finance Talk, 'Retirees Staying on Track' 4/8

Brookhaven Retired Employees Association (BREA) is sponsoring a talk on "Retirees Staying on Track in a Volatile Market," at noon on Wednesday, April 8, in the Hamilton Seminar Room, Bldg. 555. Thomas Kelly, ChFC, of TIAA-CREF will give the talk, which will focus on the impact of the current economic outlook and the importance of asset allocation throughout retirement. All are welcome.

#### Retirees Luncheon, 6/4

The Entertainment Committee of BREA is planning the 6th annual Get-Together Luncheon to be held on Thursday, June 4, at the Bellport Country Club. Watch for further details.

### Arrivals & Departures

— Arrivals —  
Jun-Ki Choi ..... ES&T  
Michael Davidsaver...NSLS II  
— Departures —  
None

### Correction

We regret that in quoting a Duke University press release titled "Ultracold Gas Mimics Ultrahot Plasma" (Bulletin of 3/13/09, pg. 1), the Bulletin repeated a statement that "The [RHIC] plasma was formed at a colossal 2 million degrees Kelvin." The temperature should have been "about two trillion degrees Kelvin."



### 2009 RHIC Run from pg. 1

the abundant gluons that have been the primary target of RHIC polarized proton runs to date, these effervescent sea quarks make up the proton structure.

Physicists have long wondered why the overall spin of a proton cannot be accounted for by summing the spin preferences of its component quarks and antiquarks. Experiments have shown that these quarks and antiquarks combine to account for only 20 to 30 percent of the proton's spin. One view is that gluons account for the missing spin, a theory that is being tested at RHIC. With the higher energy polarized proton run, the PHENIX and STAR experiments will begin to determine in detail how sea quarks contribute to proton spin, while also sampling the gluon spin contribution at lower momenta than have been previously accessible.

The RHIC run was originally expected to last until mid-April, but since President Obama signed the FY 2009 Omnibus Funding Bill, the run has been extended until the end of June. To prepare for this run, RHIC operations personnel have been working around the clock to make several significant improvements to the accelerator.

"It typically takes a few weeks to get RHIC set up in new operation mode and ready for experiments," said the Collider-Accelerator Department's Fulvia Pilat, Head of RHIC Operations. "We started cooling down the machine to 4 kelvin on February 2, and then got beams circulating a week later. By the third week, the beams were colliding

and physics production has started this week."

Data are taken 24 hours per day, interrupted only for beam development, beam experiments to improve RHIC's performance, or machine maintenance. More than 1,000 physicists from around the world participate in RHIC data-taking and analysis, and about 350 operations personnel keep RHIC running at its optimum capacity.

"We have operations personnel working 24-hours-per-day, seven-days-per-week in the main control room and at the RHIC site," Pilat said. "We also have a coordinator for every RHIC run, who oversees the run and is responsible for delivering the machine performance that is agreed upon for experiments. This year, Mei Bai [C-A] is the run coordinator, and she is basically on call all the time."

For this run, RHIC has an upgraded polarimeter to measure the degree of polarization — that is, the extent to which protons are all spinning in the same direction. It is this spin-alignment that allows scientists to tease out the factors that contribute to overall proton spin. The polarized proton injectors have also been improved to deliver or exceed a polarization of 60 percent. In addition, a new transverse stochastic cooling system will be tested, with the ultimate goal of increasing the rate of particle collisions with ions. For more information on the stochastic cooling system, see: [http://www.bnl.gov/bnlweb/pubaf/pr/PR\\_display.asp?prID=08-09](http://www.bnl.gov/bnlweb/pubaf/pr/PR_display.asp?prID=08-09).

— Diane Greenberg

### Camera Club Meeting, 3/27

The next Camera Club meeting is scheduled for Friday, March 27 at noon in Berkner's Room B. Assigned shots for this month are:

- Someone/thing against a solid white background
- Someone/thing against a solid black background
- Free selection

Send all shots to Joe Gettler ([jgettler@bnl.gov](mailto:jgettler@bnl.gov)) by Monday, March 23. For more information, contact Ripp Bowman, Ext. 4672.

### Dr. Mow Shiah Lin Scholarship: Call for Applications

BERA's Asian Pacific American Association (APAA) is accepting applications for the 5th annual Dr. Mow Shiah Lin Scholarship, honoring the late Lin, a distinguished scientist in BNL's Energy Sciences & Technology Department. In honor of Lin's research, remarkable achievements, and inventions, a one-time award of \$1,000 is granted each year to an Asian immigrant with a student visa who is matriculating toward a doctorate at an accredited institution of higher education on Long Island (including Queens and Brooklyn) in environmental & energy technology, biology, or chemistry.

The criteria for selection include academic records, references, career goals, and other factors deemed appropriate by the committee. The winner is chosen by a selection committee consisting of scientists at BNL and members of the APAA. The scholarship will be granted independent of financial need and without regard to other forms of aid to the student.

Administered by the BNL Diversity Office, the APAA is now accepting applications for the Dr. Mow Shiah Lin Scholarship through May 31. For more information or to obtain copies of the application form, contact the BNL Diversity Office at 631-344-6253 or [sge@bnl.gov](mailto:sge@bnl.gov), or visit the APAA web site at [www.bnl.gov/bera/activities/apaa/](http://www.bnl.gov/bera/activities/apaa/).

### BERA Trips

A few tickets are still available for purchase at the BERA Store for:

- **Newport, RI Tour:** Sat.-Sun. 4/25-26. Includes ferry to/from Port Jeff, luxury coach, harbor cruise, Hampton Inn Hotel, hot breakfast, tour of Marble House & the Breakers, free time. Single: \$259; double, \$187; triple, \$163; \$100 due at sign up, total by 3/24.
- **Intrepid Sea, Air & Space Museum (NYC):** Sat., 3/23. Dep. BNL 8 a.m., dep. NYC at 4:30 p.m. Luxury coach included. \$45.

### Talk for Potential Homebuyers, 3/24 By Long Island Housing Partnership Talk will include information on refinancing and on default mortgage loans

On Tuesday, March 24, at noon in Berkner Hall, representatives from the Long Island Housing Partnership (LIHP) will give an informational talk on how to apply for government funding through LIHP to pursue home ownership. The Lab has partnered with LIHP under the "Employer Assisted Housing Program" to assist employees who are interested in purchasing a home in the area. Under the Lab's program, employees may qualify for a BNL contribution toward a home purchase. LIHP will guide individuals through the application process that can provide substantial funding toward a home purchase and funds to defray closing costs.

Although the program primarily assists individuals hoping to purchase their home, the LIHP also provides counseling and information on refinancing and default mortgage loans. All employees, facility users, and guests are welcome. For more information contact Ernest Tucker, Ext. 5735, [tucker@bnl.gov](mailto:tucker@bnl.gov) or Liz Gilbert, Ext. 2315, [gilbert@bnl.gov](mailto:gilbert@bnl.gov).

### Have Your Photo Taken With the Easter Bunny! Adopt-a-Platoon Fundraiser, 4/2

On Thursday, April 2, have your photo taken with the Easter Bunny! A \$5 donation is requested, and all proceeds will go to the Brookhaven Veteran's Association Adopt-a-Platoon effort to purchase items and postage to ship packages to troops in Afghanistan. The event will be held in Berkner Hall lobby between 11 a.m. and 1 p.m. For more information, contact Denise Rodgers or Janet Sikora, Ext 3670.

### GLOBE Meeting, 3/25

The Gay, Lesbian Or Bisexual Employees (GLOBE) club at BNL will meet at 5:15 p.m. on Wednesday, March 25, in Berkner Hall, Room D. Topics of discussion will include preparation for Pride Month and updating the club's web page. For more information, contact John Reddy, [jreddy@bnl.gov](mailto:jreddy@bnl.gov), Ext. 3284.

### Want to Learn Basic Spanish?

Lazaro Vazquez of the Information Technology Division is an experienced instructor of Spanish. He is willing to give free Spanish classes on site under the umbrella of the English for Speakers of Other Languages (ESOL) program. The day and time of the class will be determined by the availability of the participants and instructor.

If you are interested in learning Spanish, contact Jennifer Lynch, ESOL Program Coordinator, [jlynch@bnl.gov](mailto:jlynch@bnl.gov) or Ext. 4894.

### Earth Day Art Contest — Open to BNL Employees' Children

The "Your Environment" art contest challenges children in grades 3-5 to create a poster that relates to environmental sustainability. Suggested topics include: recycling, clean water, clean air, protection of wildlife, compliance with environmental laws, or any other topic your child may feel is important to the earth's environmental health. Prizes will be awarded at the Earth Day Award Ceremony to be held on April 23, at 4 p.m. in Berkner Hall.

For details, go to <http://intranet.bnl.gov/ewms/internal/Miscellaneous/ArtContest/ArtContest.pdf> or contact Karen Ratel, Ext. 3711 or [ratel@bnl.gov](mailto:ratel@bnl.gov).



The Covington String Quartet

### BSA Noon Recital, 3/25 Featuring Music from 'Frankenstein'

The Covington String Quartet will play music composed to accompany the silent movie "Frankenstein" on Wednesday, March 25, at noon in Berkner Hall. Sponsored by Brookhaven Science Associates, the company that manages the Lab, the concert is free and open to the public. All visitors to the Laboratory age 16 and over must bring a photo ID.

Charming and challenging audiences and critics with performances of classical and contemporary works, the Covington Quartet retains a focus on great quartet masters of the 18th and 19th centuries, but also explores new horizons.

The quartet recently premiered original background music by Yukiko Nishimura to accompany Edison's 1910 silent film, "Frankenstein." This music will be performed during a projection of the short movie in its original 1910 form. String quartets by Haydn and Goldmark make up the balance of the recital. For more information on the performers go to: <http://www.covington-stringquartet.com>. — Jane Koropsak

## CALENDAR

— TONIGHT —

Friday, 3/20

### \*Equinox Explanations Café Physics Series

6 p.m. Brookhaven Center. Helio Takai, Sean McCorkle, and Joe Vignola will use light, sound, electrical charge, and music to highlight explanations of the Equinox that occurred today at 11:44 a.m. This original layman show is free, part of the Café Physics Series designed by Takai to promote science. All are welcome. See pg. 4.

— WEEK OF 3/23 —

Monday, 3/23

### 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.

### \*Defensive Driving, Part I

6-9:15 p.m. Brookhaven Center. See notice, pg. 2.

Tuesday, 3/24

### \*Homebuyer Education Seminar

Noon-1 p.m. Berkner Hall. A representative of Long Island Housing Partnership will talk on mortgages: choice, understanding applications, determining affordability, obtaining free pre-approvals, budget & credit counseling, credit history, grant eligibility. All are welcome. See pg. 2.

Wednesday, 3/25

### \*BSA Noon Recital, 'Frankenstein'

Noon. Berkner Hall. The Covington String Quartet will play music composed to accompany the silent movie "Frankenstein." All are welcome to this free concert, sponsored by Brookhaven Science Associates and open to the public. Visitors to the Lab of 16 and over must carry a photo ID. See notice, left.

### \*BWIS Brown Bag Lunch

Noon-1 p.m. Berkner Hall, Room A. Join Brookhaven Women in Science founders, board members, to network. Bring lunch; coffee and cake will be served.

### \*Seminar: Investment Strategy

Noon-1 p.m. Hamilton Seminar Room, Bldg. 555. A TIAA-CREF representative will focus on "Developing an Investment Strategy in the Current Economy," with Q&A session included. See notice, pg. 2.

### \*GLOBE Meeting

5:15 p.m. Berkner Hall, Room D. Gay, Lesbian Or Bisexual Employees (GLOBE) meeting. All are welcome. See notice, left.

Thursday, 2/26

### \*Defensive Driving, Part II

6-9:15 p.m. Brookhaven Center. See notice, pg. 2.

Friday, 3/27

### Employee Lunchtime Tour

Noon-1 p.m. Berkner Hall lobby. Meet a group to be taken to visit the Science Learning Center. All are welcome. No reservations necessary. See pg. 4.

### \*Camera Club Meeting

Noon. Berkner Hall, Room B. All are welcome. See notice, left.

— WEEK OF 3/30 —

Thursday, 4/2

### \*Adopt-a-Platoon Fundraiser

11 a.m.-1 p.m. Berkner Hall lobby. Have your photo taken with the Easter Bunny. Proceeds will benefit Brookhaven Veteran's Association Adopt-a-Platoon effort to pay for packages to troops. See notice above left.

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

To apply for a position, go to [www.bnl.gov](http://www.bnl.gov). Select "Job Opportunities," then "Search Job List."

**LABORATORY RECRUITMENT** - Opportunities for Laboratory Employees

**RESIDENCE CUSTODIAN (LG-3)** Temporary: 5/4/09 - 9/20/09. Staff Services Division. Apply to Job ID #14784.

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

**POSTDOCTORAL RESEARCH ASSOCIATE (Surface Science / Catalysis)** - Requires a Ph.D. in chemistry, physics, materials science or chemical engineering. Extensive experience in UHV STM, surface science, photoelectron or IR spectroscopy of surfaces is desired. Will perform experimental studies of supported nanoparticles catalysts using STM, photoelectron, thermal desorption and IR. Under the direction of J. Hrbek, Chemistry Department. BNL policy states that Research Associate appointments may be made to those who have received their doctoral degrees within the past five years. Apply to Job ID #14790.

**POSTDOCTORAL RESEARCH ASSOCIATE (Electron Microscopy, Protein Biochemistry, X-ray Crystallography)** - Requires a Ph.D. in biophysics or physics or related fields. Must have experience in electron microscopy, protein biochemistry, or X-ray crystallography. Will investigate the structure of several important protein complexes by using a combined approach of cryo-electron microscopy and X-ray crystallography. In addition to standard protein biochemistry equipment, other major instruments available for the research include JEOL-1200EX and JEOL 2010F cryo-electron microscopes in the Biology Department, protein crystallography beam lines at the National Synchrotron Light Source, and access to the Laboratory's 100 Teraflop Supercomputer (New York Blue). Under the direction of H. Li, Biology Department. BNL policy states that Research Associate appointments may be made to those who have received their doctoral degrees within the past five years. Apply to Job ID #14791.

**PHYSICIST (Nuclear Theory)** - Requires a Ph.D. in physics. The Physics Department is seeking an experienced theoretical physicist to play a leading role in the Laboratory's research program with spin-polarized proton-proton collisions at the Relativistic Heavy Ion Collider (RHIC). Should be a scientific leader with a well established research record in nuclear and particle physics is also required to take a prominent role in carrying out the spin research program and in shaping the future plans for the RHIC facility, including a proposed Electron-Ion Collider (eRHIC). RHIC is a world-leading facility for high energy nucleus-nucleus and spin-polarized proton-proton collisions. BNL's Nuclear Theory Group, working with international collaborators, plays a central role in the theoretical analysis and planning of spin measurements at RHIC and elsewhere. The candidate would assume a leading role in this effort as a member of the Nuclear Theory Group. The appointment has an expected start on or about October 1, 2009. Under the direction of D. Kharzeev, Physics Department. Apply to Job ID #14792.

**PHYSICIST (Experimental Particle or Nuclear Physics)** - Requires a Ph.D. in physics with emphasis on experimental particle or nuclear physics. The candidate should have a recognized body of work in the field with broad contributions to scientific leadership, instrument design and construction, and data analysis. Should have extensive experience in all phases of large science projects to act as project manager for the very large neutrino detector to be constructed at the Homestake DUSEL site. The detector is expected to become the largest and deepest such detector in the world. The Homestake DUSEL detector construction project is part of the larger Long Baseline Neutrino Experiment and is a multi-laboratory effort, with multiple funding agencies and a large number of collaborating Universities. Should have at least 10 years of experience in the field managing similar projects and familiarity with the DOE Critical Decision process, including documentation, reviews, Value Engineering, Quality Assurance and Earned Value Management. Should have demonstrated capabilities in communicating with scientific and engineering staff as well as accounting, cost analysis, procurement and scheduling personnel distributed across several labs and universities. Will work within the electronic detector group and will have broad associations with other groups in the laboratory and throughout the world to carry out his/her function. The electronic detector group in the Physics Department currently has ten physicists at various career levels with major current responsibilities in neutrino physics and a long history of research in fundamental particle physics. The appointment is expected to start immediately upon hire. Under the direction of S. Kettell, Physics Department. Apply to Job ID #14793.

**ASSISTANT/ASSOCIATE SCIENTIST (Powder Diffraction)** - The Powder Diffraction Assistant or Associate Scientist will be working with the user community to develop a scientific research program and its technical implementation at a state-of-the-art X-ray Powder Diffraction beamline at NSLS-II including its design, construction,

and commissioning. Candidate will report to the Powder Diffraction Beamline Group Leader. The selected candidate will have a Ph.D. in physics or related fields, plus two to five years of postdoctoral experience in synchrotron research and applications, as well as powder diffraction and applications. Must have sound basic technical knowledge and initiative to push forward related research and developments. Excellent written and oral communications skills are required, and the ability to interact effectively with a diverse group of scientists, technical staff, and users is also required. Preferred qualifications include prior experience in construction or operation of a synchrotron beamline and/or x-ray optics, as well as experience in materials science such as high pressure research. The Project desires a candidate with a solid scientific background, who is able and willing to pursue a vigorous independent research program based at the powder diffraction beamline at NSLS-II. Apply to Job ID #14778.

**LIBRARY ASSISTANT (A-2)** - Requires a high school diploma with formal secretarial or office administrative training, Associate's Degree in a relative field preferred, plus four years of relevant work experience. Must have basic knowledge of the nature and function of libraries, library services, practices and procedures and also be proficient in Microsoft Office especially in Word and Excel. Must communicate effectively to establish and maintain effective working relationships with library users and staff. Must be able to work independently within established procedures, and to exercise initiative in applying rules, procedures and instructions. Responsibilities include assisting BNL staff in using the Research Library's resources and equipment and undertake routine administrative duties related to operations. Additional duties include shelving books, and periodicals, working circulation desk, packing and unpacking library materials. Information Services Division Apply to Job ID #14787.

**REFRIGERATION & A/C ENGINEER (LG - 10) (TB5354) (Posting)** - Under minimum supervision constructs, installs, repairs, maintains and operates refrigeration, air conditioning, ventilating and auxiliary, and related equipment. Will perform the same work on air compressors and vacuum pumps whether or not associated with the above equipment. Shift workers assigned to Building 600 acknowledge all Laboratory alarms in the control room and make appropriate notifications. Maintenance & Fabrication Division. Apply to Job ID #14745.

**FIREFIGHTER/EMT** - Requires five years of progressive experience in a fire department, five years as a New York State EMT-D, and Suffolk or Nassau County, or NY State Certification as a motor pump operator on a Class A pumper. In descending order of importance, the following criteria will be used for selection in the event two or more individuals meet the above criteria: certified OSHA Hazardous Materials Technician; Certified in Confined Space Rescue; current line officer in home department; and possession of an associate degree or higher in fire protection technology. Must be willing to work shifts at the completion of training period. Laboratory Protection Division. Apply to Job ID #14782.

**CUSTODIAN POSITIONS (LG-1)** - Temporary - Under general supervision, performs general cleaning and housekeeping duties in all Laboratory buildings. Apply to Job ID #14785.

### Motor Vehicles

07 MAZDA 6 - 4cyl. 4dr. 5spd, a/c, am/fm abs a/t 6cd c/c, win/seat/steering, gd. cond. 17K mi. \$16,000/neg. Ext. 5351.

06 YAMAHA RAPTOR 350 - mint cond., very little used, white/black, email for pics, sdwac1@yahoo.com \$3,000/neg. 681-7711.

06 FORD MUSTANG GT - red/black leather, a/t, all options, 25K mi. \$18,500/neg. Artie, 258-5809.

05 HONDA SHADOW SPIRIT - 750, excel cond, w/shld, saddle bags, rec svcd, pics avail. \$3,500/neg. Ext. 7132 or 793-4551.

99 HUYNDAI ELANTRA - 4cyl, 4dr, 2L, a/t, 33 mpg. a/c, am/fm/cass, runs excel, 110K mi. \$2,500/neg. Eugenio, Ext. 2079, 375-6341.

94 VOLVO 940 - excel. cond., 4dr, new NYS inspt, e-mail for photos. jlonien@bnl.gov . 159K mi. \$1,900. Ext. 4262 or 495-5346.

### Furnishings & Appliances

DESK - like new, 2 big drawers, ideal for pc. \$20. Eugenio, Ext. 2079 or 375-6341.

KITCHEN TABLE - Solid light oak. built-in leaves, excel. cond. Asking \$300/OBO . Wendy, Ext. 3924 or 631-821-1453.

WALL UNIT AND TV - two 5' sides, 21" w, 6'1" top; 52" tv, works well, can sell sep., \$1,200/all. Nadine, 803-6462.

WOOD MEDIA CABINET - beautiful, solid alder, 43wx24dx63h, retractable drs, 36" + TV; call for pix, \$425/obo. Ext. 5195.

### Audio, Video & Computers

PRINTER - Canon Pixma MP 480, also, copy/scan, prints frm memory cards/digital cameras/DV camcorders, new in sealed box/\$80. Zhening, Ext. 2787.

PRINTER - LEXMARK X83 w/2 unopened color/black cartridges, works v/well, software incl, \$25. Ext. 7459.

TOUCH SCREEN MONITOR - 21" CRT - not LCD. Includes driver disk. Make offer. Frank, Ext. 4620.

TRENDNET PC WIRELESS CARD - Model TEW-441PC 108Mbps 802.11 g format. Brand new in box. \$30. Mike, Ext. 4547.

TV - 32" JVC tube tv, 5 yrs old, works well, \$25. Peter, Ext. 3174.

WEBCAM 1.3MP - New, with install CD. \$25. Zhening, Ext. 2787.

### Sports, Hobbies & Pets

CARDIO CRUISER - & AB Cruncher, both excel. cond., user's guide, \$50/ea. Ext. 7459.

EASEL - For painting. Fully adjustable, wood. Pic available. Make offer. fdonato@bnl.gov. Frank, Ext. 4620.

GOLD GOURAMI'S - 2 Gold Gourami's, about 3" + long. Have outgrown our tank. Free. Richard, Ext. 3932.

### Miscellaneous

35MM SLIDE SCANNING - www.picture-perfectscans.com scans, color corrects slides, photos, negs, converts to DVD. DVD. Music available. Port Jeff. 928-6469.

BOX OF 26 BOOKS - New, HC, 1st Ed., Paperback. \$50. e-mail for a detailed list. jlonien@bnl.gov Ext. 4262.

BRICKWORK - Reset your existing walkway, pool area and patio to look brand new. No job too small. BNL discount. Tony, 736-7942.

CAT FEEDER - 2lb wtr/food, \$3/ea; flip-over cat litter box \$8; lg scratcher \$4; sleep bx \$7; play pen \$2; etc., pic avail. Yong, Ext. 7022.

CONCERT TICKETS - 2, 'Jay Black & Special Guest,' Capital One Bank Theatre, Westbury, Sat, 4/4 @ 8pm, \$45/ea. 678-2457.

HOME IMPROVEMENTS - Your home care co. All phases of roofing siding, bath, kitchen, decks, more. Call for any info. Lic&Ins. George, 878-1178.

QUAD-07 YMHA RAPTOR - 700R, 5spd, low hrs, excel. cond., \$6,200. Richard, Ext. 4520 or 331-8159.

PIANO LESSONS - Classical, All Levels, NYSSMA preparation, in Shoreham. 631-744-9763.

TAXES - Prepared by Tax Consultant. Servicing Lab personnel for over 30 years. Reasonable. John, 732-2472.

TROMBONE - student model Maestro, why rent? only \$50; elec. lawn mower, B&D, gd cond., \$10. Ext. 5257.

WEDDING GOWN - Size 4 White straight, beaded, sleeveless wedding gown with train \$150. 281-4459.

### Happenings

AUDITION FOR SINGERS - East End Sch. of Arts, R/head, needs 9 soloists, 30 chorus, for H.M.S. Pinafore concert 8/21-23. Audition: 5/30. leslieluxemburg-music@yahoo.com .

ENTERTAINMENT - Miller Place, Don Quijote Rest, Yvette Sings and Bob Plays Piano/Guitar 3/28, 8-11 pm. Come over! Yvette, Ext. 5591.

PERFORMANCE - 3/26, 7 p.m. At Wang Center, SBU, "Koranic Fatigue" portrays humor, insight, character sketches in solo performance by Mirza. \$15 general admission, \$10 student/senior. For more description and to buy tickets, see [www.sunysb.edu/sb/wang/events.shtml](http://www.sunysb.edu/sb/wang/events.shtml), or call 632-4400.

SONGS THAT GOT AWAY - NFCT ([www.nfct.com](http://www.nfct.com)) presents a concert to benefit Bread & More Soup Kitchen. \$10 door. 8PM 3/20, 21. Laura, Ext. 2520.

SPIRIT WARFARE EVENT - April 18, 11am-7pm at the Best Western in Riverhead, NY. Registration is \$25. Call for info. Tiffany, 846-8419.

SPRING AUCTION - Fri., 4/24, 7 pm, Holy Angels Regional School, Patchogue, Annual Spring Auction at St. Frances Cabrini, 134 Middle Country Rd, Coram. Admission \$10/pp includes 50 general raffle tickets. Cash Raffle: 1st Prize \$500 . Kim, 868-0188.

TALK ON SUPERNOVAE - Sat. 3/14, Talk by A. Calder of SBU. 7:30 pm, Custer Inst. Southold, \$13 donation. All welcome. [www.custerObservatory.org](http://www.custerObservatory.org) or Custer-Donna@yahoo.com 765-2626.

### Lost & Found

DIAMOND ANNIVERSARY RING - lost Mar 9 in vicinity of bldgs. 179 & 460, Center St. prkg area, Reward. Bonnie, Ext. 7250.

### Free

AM/FM 8 TRACK STEREO - Panasonic, w/8 track & turntable also two side speakers. Oldie but works. Ext. 2596.

COUCH/LOVESEAT - 2 chairs; cloth Col. style, 3/blue, 1/red, fair to gd. cond. Ext. 2788.

PRINTER - Hewlett Packard DeskJet 722C. Ext. 2596.

TIME SHARE - Interval Internatl. exchange week. Many destinations available worldwide. Expires April 16. Mike, Ext. 2947.

VACUUM CLEANER BAGS - 11 canister-style disposable bgs, Sears no. 5055, fits many Kenmore vacs (I have list). Ext. 4475.

### For Rent

BELLPORT VILLAGE - 1 bdrm upstairs apt, living room/kitchen combo, full bath, priv. entr & driveway, all Village amenities, incl utilities. \$975/mo. Jim, 275-0745.

## Celebration Tonight, 3/20, 6 p.m. 'Equinox Explanations'

All are welcome to attend a free, fun event this evening, that will include light, sound, electrical charge, and musical interludes. It's "Equinox Explanations," and it will be held at 6 p.m. today, Friday, March 20, at the Brookhaven Center.

Twice a year, at two specific moments in March and September, the center of the sun can be observed to be vertically above the earth's equator. This is called Equinox, and this year it occurs on March 20 at 11:44 a.m.

As part of the "Café Physics" Series designed by Helio Takai to highlight and promote science in interesting ways, Takai, with Sean McCorkle and Joe Vignola, will put on a layman show combining light, sound, electrical charge, and musical interludes to explain the equinox in an original, exciting way.



Roger Stoutenburgh 04280906

### Employee Lunchtime Tour, 3/27

On the next Employee Lunchtime Tour, explore BNL's Science Learning Center, an on-site, hands-on educational facility for school children 1st through 8th grades. Enter this exciting "door into science" on Friday, March 27, and find out why about 25,000 schoolchildren want to come here each year to learn about the fun and interest science provides. Meet the tour group in the upper lobby of Berkner Hall at noon to be taken to the center: you will return by 1 p.m. No reservations are needed.

### Upgrades to BNL Classified Ads System

An upgrade to the BNL Classified Ads System rolls out today, Friday, March 20. In addition to a simplified user interface, BNLers will notice several other improvements to the system, including the ability for each user to edit and remove their own ads from the system as the need arises. Ads from the previous system will not be migrated into the new system. Therefore, BNLers with "active" ads in the previous system - especially those with service advertisements - should resubmit their ads. To do so, click on the "Submit an ad" link on the Intranet home page. If you need to submit service or other ads from off site, you may continue to send your ad in, always including your life number, by e-mail to [bulletin@bnl.gov](mailto:bulletin@bnl.gov) or by regular mail to Bulletin, Bldg. 400C, BNL, Upton, NY 11973-5000.

BROOKHAVEN HAMLET - For BNL Employees/guests only, room for rent, use of house, kit, cable TV, w/d, patioed yd, charming house. \$485/mo. Sidney, 286-4028.

CENTER MORICHES - studio apt on creek, cozy grds, new bath. \$900/mo./neg. 831-4500.

CENTER MORICHES - lg. 1 bdrm apt, l/r, kit., full bath, on creek w/water view, secure. \$1,100/mo./neg. Ken, Ext. 2567 or 831-4500.

MASTIC - 1 bdrm, full kit & bath, den, own ent/drwy, for 1 person, all incl, 1 mo. sec, no smkg/pet. \$850/mo. joe mondi, Ext. 3499 or 219 7241.

MASTIC BEACH - 1 bdrm apt, full bath, l/r, kit., priv. ent. & drwy, no smkg/pets, all incl. except cable, sec/refs req'd. \$950/mo. 281-4559.

MEDFORD - Condo, newly decorated excel for single occupant or couple, 1/br, 1/ bath, fully furn., close to Lab, avail. June 1st, plus util. \$1,350/mo. Gary, 338-5412.

N. SHIRLEY - 1 bdrm apt., grd level, fully furn., pvt ent., 4 min to Lab, single, no smkg/pets. \$800/mo. Ganga, Ext. 3849 or 281-3479.

PORT JEFFERSON ST. - House, 3 bdrm, 1 bath, kitch., d/r, l/r, a/c, incl. laundry, lge yard, gar, deck, no smoking/pets, v clean. \$1,590/mo. Sucheta Diwan, 828-6677.

PORT JEFFERSON ST. - Eff. apt, full bath, kitnet, part furn., pvt ent., drwy, all incl./except cable. no smkg/pets. \$650/mo. Sucheta Diwan, 828-6677.

ROCKY POINT - 2 bdrm. house, 10 min. to BNL, heating incl. \$1,200/mo. 849-2908.

ROCKY POINT - 1-Bdrm.apt. L/R, kitch combo, very clean, freshly painted, large closets, quiet n/neighborhood 1-mo. sec dep. no smoking/no pets. \$875/mo. 821-6409.

SHIRLEY - lg 1 br bsmt apt, sep ent. close to beaches/parks/hwys/LIRR, 1 mo rent + 2 sec, 15 min. to Lab, no smkg/pets, suitable for one. \$725/mo. Ext. 3846.

SHOREHAM - 1 big bdrm, share house, 7 mi to BNL, no smkg. \$650/mo. 516-380-2650.

SOUTHAMPTON - 3 bdrm., 3 bath, new constr., single family setting. Indscape & maint. incld. no smoking, pets neg, cr ck & ref's reqd. pictures avail. \$2,500/mo. 902-2338.

YAPHANK - 2 bdrm bsmt apt. 1 full bath, lg eik, l/r, storage, pvt ent/yd, yd space avail for extra fee, 8 min from lab. \$1,100/mo. Mike, 816-0707.

### For Sale

BROOKHAVEN HAMLET - 3br, 2.5 ba, 2car gar, Cust. WF pro. Col. 1 acr, cul-d-sc, nat. prserve. Atchd office w/waiting room. Beaut. grnds, view, mve-in cond. Backyd dock. \$599,000 Ext. 2396.

MILLER PL/SOUND BEACH - Open House, Sun. 3/22, 1-3 pm Legal m/d, 3-bdrm, 2-bath ranch + 1-bd, 1-bath apt. 3 Adams Ave. Corner: Adms & N.Cntry Rd. \$395,000/neg. 872-9268.

SHOREHAM - Ranch, newly renov, 3 bdrm, bath, l/r, den, wood flrs, kitch/granite counters, ss appliances, gar, lge yard, fam n/neighborhood \$350,000/neg. 258-4607.

WADING RIVER - 9 rm Col, SWRSD, lge kitch & dinette, l/r, d/r, fam rm w/brick flp, 5 bdrms, 2.5 bath, full b/ment, 2 car gar, pool, fenced bkyard, sprinkler syst. \$499,000. 929-6771.

### Yard & Garage Sales

MILLER PLACE - Community yard sale, Sat 4/4, 4/5 rain date, Miller Pl Park off lower RP Rd & Grandview Bl. Ext. 5090.

### Wanted

ADOPT-A-PLATOON - Monetary donations gratefully accepted towards mailing shipments to military overseas. Thank you. Joanne, Ext. 8481.

### In Appreciation

On behalf of my family, I would like to thank my friends at BNL for their support and comfort during the illness and passing of my mother, Helen Brown. Your thoughts and prayers were greatly appreciated.

- Kathy Brown.