

'Topping-Out' Construction Milestone At Center for Functional Nanomaterials

Construction workers bolted in the final steel beam for BNL's Center for Functional Nanomaterials (CFN) on Friday, March 24. The occasion, known as a "topping out" in the construction industry, was celebrated by representatives of the Lab; general contractor E.W. Howell Co., Inc.; and architectural and engineering firm HDR Architecture, Inc.

Construction started September 13, 2005, on the 94,500-square-foot facility, and steel erection began on January 21, 2006. With top off on March 24, the construction project took an important step forward. Doon Gibbs, Brookhaven's Associate Director for Basic Energy Sciences, noted the project's good safety record and that the steel work was done about two weeks ahead of schedule.

The CFN will provide researchers with advanced probes and the ability to use new fabrication techniques to study materials at nanoscale dimensions — typically, billionths of a meter, or 1,000 times smaller than a human hair. These materials have different chemical and physical properties from those of bulk materials and could form the basis of new technologies.

— Mona S. Rowe

Gathered in front of the steel framework for the Center for Functional Nanomaterials are: (from left) Harry Hanson, E.W. Howell; Matt Williams, Williams Steel; Kevin McKenna, E.W. Howell; Ove Dyling, BNL; Paul O'Rourke, E.W. Howell; Doon Gibbs, BNL; Ahmad Soueid, HDR; Michael Schaeffer, BNL; Evelyn Landini, Brookhaven Site Office of the U.S. Department of Energy, which is funding the project; and Martin Fallier, BNL.



New Wrinkle in the Mystery Of High-Tc Superconductors

In the twenty years since the discovery of high-temperature (Tc) superconductors, scientists have been trying to understand the mechanism by which electrons pair up and move coherently to carry electrical current with no resistance.

"We are still at the beginning," says Tonica Valla, Condensed Matter Physics & Materials Science Department (CMPMS), who gave a talk on his group's latest results at the March American Physical Society meeting in Baltimore, Maryland. "If anything," he adds, "it looks as if the story is getting more complicated."



The research of Valla and his group, which includes Alexei Fedorov, now of Lawrence Berkeley National Laboratory's Advanced Light Source, and Peter Johnson and Genda Gu, both of CMPMS, was funded by the Office of Basic Energy Sciences within DOE's Office of Science. In 1999, Valla's group was the first to observe a "kink" in the energy level of electrons in high-Tc superconductors just as they went through the transition temperature from their normal to superconducting state. The kink was the first clue to explaining what the mechanism of electron pairing might be.

"The kink gave us the hope that we could identify the interaction that was responsible for the electron pairing," said Valla. Some groups hold that the mechanism is the same as in conventional superconductors — that is, that phonons, or vibrations in the crystal lattice, are responsible for electron pairing.

(continued on page 2)

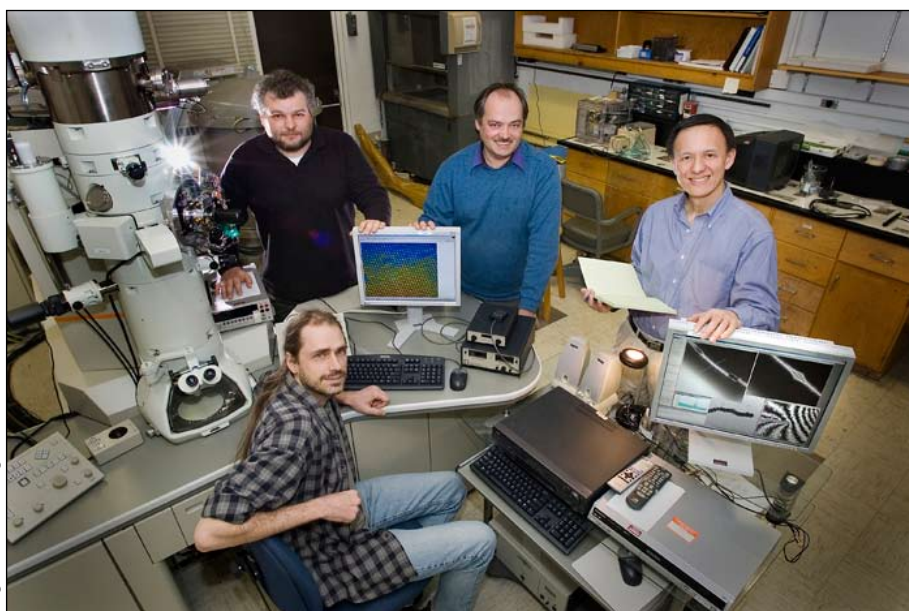
Shrinking Magnetic Storage Media Down to the Nanoscale

In the world of electronic and magnetic devices, the goal is to get smaller.

"The smaller space one bit of information can occupy, the more data you can get into a device and the faster it can operate," says Yimei Zhu of BNL's Center for Functional Nanomaterials (CFN). Zhu presented his work assessing the properties of materials that may lead to magneto-electronic devices on the scale of billionths of a meter on March 13 at the American Physical Society meeting in Baltimore, Maryland.

Funded by the Office of Basic Energy Science within DOE's Office of Science, Zhu's group includes June Lau, a Columbia University Ph.D student who is now at the National Institute of Standards & Technology, and Marco Beleggia, Marvin Schofield, and Vyacheslav Volkov, all of CFN. They have fabricated patterned magnetic films by depositing magnetic materials such as Permalloy and cobalt in patterns of dots, squares, or ellipses across a surface of nonmagnetic substrates such as carbon or silicon nitride. As each dot measures about 100 nanometers, or bil-

lionths of a meter across, these materials could serve as building blocks for new nanoscale magneto-electronic devices and data storage media.



CFN researchers who seek to shrink magnetic storage media include: (seated) Marvin Schofield, (standing, from left) Marco Beleggia, Vyacheslav Volkov and leader Yimei Zhu.

"For digital communication and data storage applications, such as magnetic recording media, you need two stable states to encode the 'ones' and 'zeros' of digital information," Zhu explains. In his array of magnetic dots, the two states are the two distinct spin orientations, or polarities, of the dots' internal magnetic fields.

Using a state-of-the-art, field-emission transmission electron microscope (TEM) equipped with a custom-made objective lens — the only one like it in the world — Zhu's group can probe the magnetic properties (including spin orientation) of each dot, and map how the spins "flip" in response to an external magnetic field — or other variables such as temperature, environment, and crystal defects.

The precise measurements allow the scientists to compare experimental observations with calculations to validate various theoretical models. Once the researchers understand the mechanism, scientists may be able to scale the materials down even smaller, perhaps to the molecular scale.

— Karen McNulty Walsh

BNL Director Search — Update

Brookhaven Science Associates LLC (BSA) has announced a search for the next BNL director. Shirley Strum Kenny, President of Stony Brook University and Chair of the BSA Board, and Carl Kohrt, CEO of Battelle Memorial Institute and Vice Chair of the BSA Board, have appointed Robert McGrath of Stony Brook and Donald McConnell of Battelle as co-chairs of the search committee. The other committee members are Sally Dawson, BNL; Steven Dierker, BNL; Paul A. Fleury, Yale University; and Wayne A. Hendrickson, Columbia University.

The search firm of A.T. Kearney has been engaged to assist in the search. The first search committee meeting was held on March 24.

A website is being developed to provide information regarding the search and will be available shortly. Suggestions of names of persons qualified to direct the Laboratory are welcomed. The "comments" form on the director search website will be an easy mode for nomination suggestions or comments on the search itself.

The search committee expects to complete its duties by late summer 2006. The committee will report on progress at the April 13 meeting of the BSA Board. The Board will also discuss appointment of an interim director for the period following Praveen Chaudhari's announced date of April 30 for stepping down as director.

CALENDAR
OF LABORATORY EVENTS

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

— EACH WEEK —

Weekdays: Free English for Speakers Of Other Languages Classes

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

Mondays & Wednesdays: Pilates

Mondays at noon, Wednesdays at 5:30 p.m., both in Rec. Hall. 9-week session, \$60 for once a week, \$70 for twice a week. Registration is required. Christine Carter, Ext. 5090.

Mondays & Thursdays: Kickboxing

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

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

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

Tues. & Thurs: Aerobics

5:15-6:30 p.m., Rec. Hall. 10 classes for \$40, or \$5 per class, pay as you go. Pat Flood, Ext. 7866.

Tues. & Thurs: Aqua Aerobics

5:15-6:15 p.m. \$20 to attend once a week, \$40 to attend twice a week. For more information, call Ext. 2873.

Tues. & Thurs: Jazzercise

Noon-1 p.m., Rec. Hall. \$88 for twice-a-week eight-week session, you may use the membership at several Jazzercise locations. Christine, Ext. 5090.

Tues. & Thurs.: Ving Tsun Kung Fu

Noon-1 p.m., Brookhaven Center, North Room. \$80/month or \$10 per class, pay as you go. Taught by Master William Moy. Scott Bradley, Ext. 5745 or bradley@bnl.gov.

Tue., Thu. & Fri: Upton Nursery School

8:30 a.m.-noon, Rec. Hall. 2- and 3-day programs available. Kati, 821-4131.

Tuesdays: Welcome Coffee

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

Tuesdays: BNL Music Club

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

Tuesdays: Jiu Jitsu Club

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

Tuesdays: Toastmasters

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

Tues., Wed. & Thurs: Rec Hall Activities

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

Wednesdays: On-Site Play Group

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

Wednesdays: Weight Watchers

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

Wednesdays: Yoga

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

Wednesdays: Ballroom Dance Class

Brookhaven Center, N. Ballroom. Instructor: Giny Rae. New series starts 3/15. See notice, page 3. John Milner, Ext. 3853; Madeline Windsor, Ext. 5069.

Thursdays: Reiki Healing Class

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

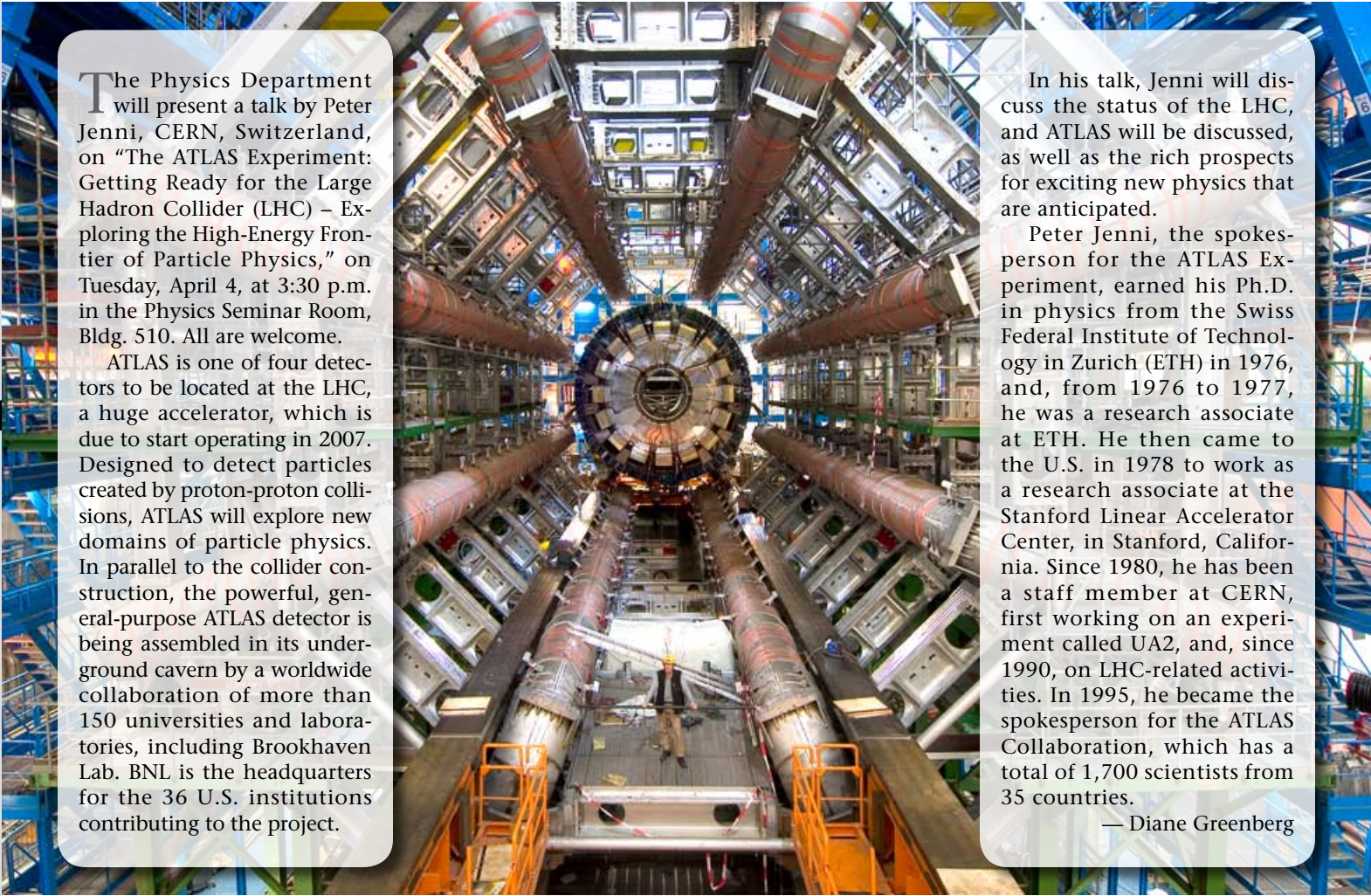
Fridays: Family Swim Night

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

Fridays: BNL Social & Cultural Club

6-9 p.m., North Ballroom, Brookhaven Ctr., dance lessons, 9-11:30 p.m. general dancing. Rudy Alforque, Ext. 4733, rudy@bnl.gov.

Peter Jenni of CERN to Give Talk on the ATLAS Experiment, 4/4



The ATLAS Detector photographed in October 2005 as it is being assembled at the Large Hadron Collider (LHC) at the CERN Laboratory in Geneva, Switzerland. The aim of ATLAS is to discover why particles have mass.

Mystery of High-Tc Superconductors (cont'd)

Other scientists believe that changes in the spin alignment, or magnetic polarity, of adjacent electrons — known as magnons — are responsible. “The problem is that there are both phonons and magnons in the crystal with the energy where we see the kink, so it is still not clear,” Valla says.

The latest wrinkle uncovered by Valla's group is the observation of similar energy scales and gaps in a material that is not a superconductor. The material is a special form of a compound made of lanthanum, barium, copper, and oxygen, where there is exactly one barium atom for every eight copper atoms. With less or more barium, the material acts as a high-Tc superconductor (in fact, this was the very first high-Tc superconductor discovered). But at the 1:8 ratio, the material momentarily loses its superconductivity.

“The fact that this system, which is not a superconductor, has similar properties to the superconducting system is not

helping to solve the mystery,” Valla says. But then he notes that 20 years since the discovery of high-Tc superconductors is still not that long. “For conventional superconductors,” he says, “it took about 50 years to come up with a good explanation for the behavior.”

Valla's talk was part of a session on the use of angle-resolved photoemission spectroscopy in the study of high-Tc superconductors. It included a discussion of advances in this technique. His group uses bright beams of ultraviolet light at beam line U13UB at BNL's National Synchrotron Light Source to emit electrons from the samples they are studying. Using high-resolution spectrometers, the scientists measure the energy and the angle at which the electrons exit the crystal, allowing them to reconstruct the electrons' state while in the crystal — their energy level and whether they had any interactions with phonons and/or magnons.

— Karen McNulty Walsh

National Library Week, Next Week, 4/2-8

Come rediscover all that the Research Library has to offer during National Library Week. In celebration, we will be hosting the following information sessions and events at the Research Library, Building 477. Information specialists from the database providers will conduct all sessions. General sessions will be held at 1:15 p.m., followed by in-depth discussion. Refreshments and door prizes will be offered.

Monday, 4/3, 11 a.m.-3 p.m.

Open House. Learn about resources in your subject areas.

Tuesday, 4/4, 1:15 p.m.

ISI Web of Knowledge (Science Citation Index & INSPEC). General session & advanced search techniques for experienced users

Wednesday, 4/5, 1:15 p.m.

Knovel (Online Interactive Reference Books). General session and advanced search techniques for experienced users

Thursday, 4/6, 1:15 p.m.

Engineering Village 2 (Physics & Engineering Database). Webinar: Introductory session & advanced search techniques for experienced users

Friday, 4/7, 10 a.m.-3 p.m.

Open House. Learn about resources in your subject areas.

❶ For more information, call the Research Library, Ext. 7761 or 3487.

In his talk, Jenni will discuss the status of the LHC, and ATLAS will be discussed, as well as the rich prospects for exciting new physics that are anticipated.

Peter Jenni, the spokesperson for the ATLAS Experiment, earned his Ph.D. in physics from the Swiss Federal Institute of Technology in Zurich (ETH) in 1976, and, from 1976 to 1977, he was a research associate at ETH. He then came to the U.S. in 1978 to work as a research associate at the Stanford Linear Accelerator Center, in Stanford, California. Since 1980, he has been a staff member at CERN, first working on an experiment called UA2, and, since 1990, on LHC-related activities. In 1995, he became the spokesperson for the ATLAS Collaboration, which has a total of 1,700 scientists from 35 countries.

— Diane Greenberg

Earth Day Plans Under Way — Join Contest

The Environmental & Waste Management Services Division (EWMS) has exciting events planned for Earth Week, April 17 – 21, including the Environmental Pledge Tree, the hybrid vehicle display, the office swap, and the annual awards celebration.

Once again, EWMS is also hosting the “Twice is Nice” contest. The goal is to create the best entry made from reused materials destined for the trash, such as household wastes and construction debris. The contest is open to all BNL employees. Check your mailbox for entry forms, which contain the contest rules. For more information, contact Karen Ratel at Ext. 3711 or ratel@bnl.gov.

Wanted:

Environmental Stewardship Award Nominees

As part of BNL's commitment to environmental stewardship, the Lab likes to show appreciation to those BNL employees who help to make the environment more healthy and livable. Recipients of the 2005 award will have demonstrated an outstanding contribution in the areas of pollution prevention, recycling, waste minimization, energy conservation, compliance, or resource conservation. Awards will be presented at the annual Earth Day Award Ceremony on April 20. If you believe you or someone you know should be recognized for their environmental stewardship efforts, forward your name (or nominee's name), extension, department/division, Bldg. number, and an overview of the contribution with any supporting documentation, to Karen Ratel, Bldg. 120. For further information, contact Ratel at Ext. 3711 or ratel@bnl.gov.

BNL's Asian Pacific American Association Offers Dr. Mow Shiah Lin Scholarship

Applications are now being accepted for the second Dr. Mow Shiah Lin Scholarship sponsored by the Asian Pacific American Association (APAA) at BNL. The annual \$1,000 scholarship was initiated last year to honor the late distinguished Brookhaven Lab scientist for whom it was named.

In honor of Lin's research, achievements, and inventions, the scholarship is granted each year to an Asian immigrant with a student visa who is matriculating toward a graduate degree in environmental science, biology, or chemistry at an accredited institution of higher education, in remembrance of the manner in which Lin began his career.

BNL scientists and members of APAA choose the winner. The selection criteria include academic records, references, career goals, and other factors deemed appropriate by the selection committee. The scholarship is granted independent of financial need.

Applications and further information can be obtained by contacting the Diversity Office, (631) 344-6253, or srosario@bnl.gov, or by visiting the APAA website. The application deadline is May 31, 2006.

Mow Shiah Lin began his career at BNL in 1975 as a postdoctoral fellow, and advanced to co-lead a research team working with an environmental remediation company to use selected bacteria to convert toxic oil wastes, such as used motor oils, into useful products. In 2001, Lin shared the R&D 100 Award, given by *R&D Magazine* to the top 100 technological achievements of the year, for a technology to recover silica from geothermal brine. Lin died suddenly due to a brain aneurysm at the height of his career in 2003, and his fellow employees, friends, and family contributed funds to establish the scholarship.

All Aboard! 4/5

BNL retiree Bill McGahern spent most of his career working toward achieving collisions at the Lab's Relativistic Heavy Ion Collider. Now, he spends his time teaching people how to avoid collisions -- boating collisions, that is. To do this, he has become a volunteer and leader in the United States Power Squadrons (USPS), a non-profit, educational organization whose primary mission is to promote boating safety.

McGahern will be at Berkner Hall on April 5, 11 a.m.-1 p.m., to share information on safe boating. He recommends every Long Islander attend the safe boating classes offered by the USPS.

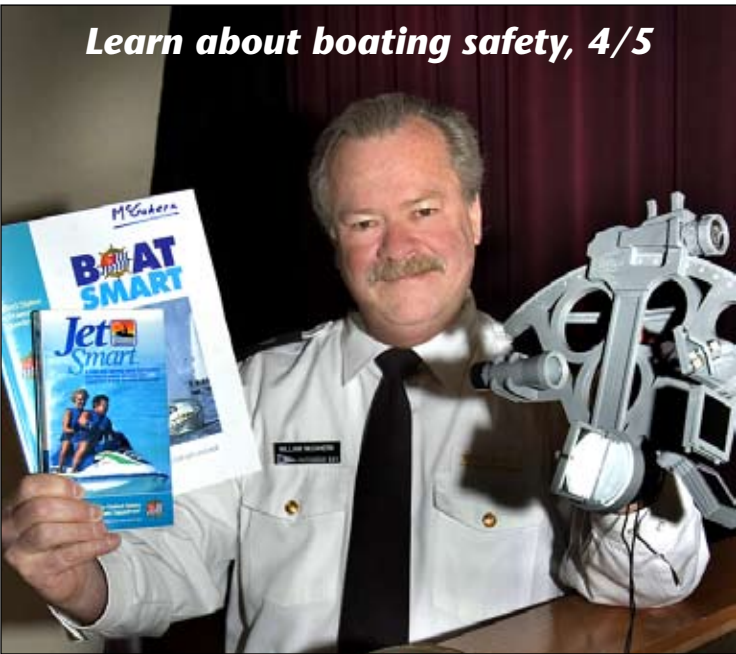
McGahern, who retired from the Collider-Accelerator Department in May 2005, now spends his leisure time formulating and teaching safe boating courses for the general public. "I see this as a win-win situation," he said. "I get to meet new people while I am providing a very important community service -- teaching fellow boaters seamanship, navigation, and most importantly, safety on the water."

The USPS has partnered with organizations such as the Town of Brookhaven, local high schools, fire departments and libraries to teach the New York State certified Safe Boating Course to the public. For those individuals who wish to learn more about boating beyond the "basic" course, there are a variety of advanced courses offered to USPS mem-

April is National Volunteer Month

The Volunteers in Partnership program (VIP), sponsored by BSA, seeks to support and acknowledge employees who volunteer in organizations outside BNL. To celebrate national volunteer month, in an effort coordinated by VIP member April Gray, four BNLers will be in Berkner Hall lobby for one lunchtime each over the next four weeks, to talk about the community organization for which they volunteer. The Bulletin will feature each volunteer a week ahead of the visit.

For more information on the VIP program, contact Barbara Blenn, Ext. 4458, or go to www.bnl.gov/community/vip/body.htm.



On April 5, 11 a.m.-1 p.m., BNL retiree and United States Power Squadron volunteer Bill McGahern will set up a display in Berkner Hall to provide information on boating navigation and safety. McGahern is holding safe boating booklets and a sextant, a celestial navigational tool.

bers, including a navigation course that teaches boaters how to use celestial bodies to determine their global position within three nautical miles.

McGahern, a long-time boat owner, lives in Center Moriches with his wife Bonnie, an employee in the Nonproliferation and National Security Depart-

ment. "Long Island is a boater's paradise, but safety should be the most important priority for everyone who enjoys boating and water sports," he said.

— Jane Koropsak

For more information on USPS you can call McGahern at 631-878-6016 or go to: www.usps.org/newpublic1/guesthome.htm.

'Diabetic Nutrition: Essentials for Life' Two-Part Talk by dietician Amy Shapiro, 4/6 & 20

All are welcome to attend "Diabetic Nutrition: Essentials for Life," a two-part presentation to be given by registered dietician and diabetes educator Amy Shapiro, in Berkner Hall, Room B, noon-1 p.m., on two Thursdays: April 6 and April 20. All diabetic participants who attend both sessions will be eligible to obtain a free Lisecan glucometer. Details and restrictions will be discussed. Register for the talk by completing the form sent to each employee and returning it to Michael Thorn, Bldg. 490, or e-mail mthorn@bnl.gov.

Coming Up: Talks of General Scientific Interest The ATLAS Experiment, 4/4

Peter Jenni, CERN, Switzerland, will talk on "The ATLAS Experiment: Getting Ready for the Large Hadron Collider -- Exploring the High-Energy Frontier of Particle Physics," at 3:30 p.m., Tuesday, April 4, Physics Seminar Room, Bldg. 510. (See story, page 2.)

414th Brookhaven Lecture, 4/19

Anat Biegon of BNL's Medical Department will talk "Of Boys and Girls and Bumps on the Head," at 4 p.m., Wednesday, April 19, Berkner Hall. All are welcome.

BSA Distinguished Lecture, 4/21

Nobel Laureate Frank Wilczek will talk on "The Origin of Mass and the Feebleness of Gravity," at 4 p.m., Friday, April 21, Berkner Hall. All are welcome.

Sign Up Now for Badminton Tournament

The BERA Badminton Club will hold a Spring Tournament, starting Thursday, April 6. To participate, sign up immediately on the list in the back of the gym or e-mail Erik Muller at emuller@bnl.gov by Wednesday, April 5. The winner will be immortalized with his or her name placed on a trophy plaque to reside permanently in the gym. There will also be a picnic at the end of the tournament for all the participants. For more information, go to www.bnl.gov/bera/activities/bminton/.

702 Lbs. Lost by BNLers in '05 Join the Winning Team: Register for Weight Watchers

Last year, BNLers participating in the Lab's Weight Watchers Program lost a combined 702 pounds. Register for the next Weight Watchers session at a cost of \$89 for 10 weeks on Wednesday, April 5, from noon to 1 p.m. in the Brookhaven Center. Contact Michael Thorn, Ext. 8612 or mthorn@bnl.gov.

CIGNA Representative on Site, Mondays

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

Recital

BSA Noon Recital, 4/12 Roebling Ensemble

Roebling Ensemble, a piano quartet, will give a concert on Wednesday, April 12, at noon in Berkner Hall. Sponsored by Brookhaven Science Associates, the company that manages BNL, the concert is free and open to the public. All visitors to the Lab age 16 and over must bring a photo ID.

Members of the Roebling Ensemble studied together at the Juilliard School and the Curtis Institute of Music and have performed a combined 13 summers at the Marlboro Music Festival. The group's members include Rieko Aizawa, a pianist in the Amelia Piano Trio and an acclaimed soloist; violinist Jesse Mills, soloist, classical performer, improvisational artist, and composer; violist Melissa Reardon, soloist, chamber musician, and founding member of the East Coast Chamber Orchestra; and cellist Raman Ramakrishnan, a Bellport High School graduate who founded the Dædalus Quartet, with whom he tours internationally. The ensemble will play music by Mozart and Brahms.

Arrivals & Departures

— Arrivals —

Natalia Medvedeva..... Medical

— Departures —

Young-Suk Choi..... CFN

Answering Employees' Concerns

BNL is committed to the highest ethical standards, to working safely, and to protecting the environment. The Lab's Employee Concerns Program was established to safeguard these commitments. Should any employee have unresolved issues concerning: the environment, safety, health, waste, fraud, or abuse, he or she may proceed in the following way:

- Alert your line management to your concern
- Is your environment, safety and health problem still not resolved? Contact your Environment, Safety & Health Coordinator or Facilities Support Representative. Concerns covered by labor agreements must be addressed through the labor grievance process
- If you still believe a condition or practice violates BNL standards, contact the Employee Concerns Program Manager, Susan Foster, Ext. 2888, or EmployeeConcerns@bnl.gov. A formal and confidential investigation will be conducted and you will receive a response. The Lab will not discriminate against any employee who has filed a complaint.
- Still not satisfied? You may request an inspection from a DOE representative by filing a request directly with the Brookhaven Site Office. For information call Ext. 4089. DOE will maintain confidentiality, if requested.

Elder Law Seminars, 4/11 & 5/25

Join Nancy Burner, former president of the Suffolk County Women's Bar Association and a member of the National Academy of Elder Law Attorneys, on Tuesday, April 11, from noon to 1 p.m. in Berkner Hall, Room B, where she will present the elder law seminar "Trusts, Trusts, Trusts: Do I Really Need One?" and on Thursday, May 25, from noon to 1 p.m. in Berkner Hall, Room B, where she will present "The New Deficit Reduction Act: Medicare Part D Prescription Drug, What Else Is New?" Check your mailbox for registration forms. Return completed forms to Michael Thorn, Bldg. 490.

For more information, contact Michael Thorn at Ext. 8612 or mthorn@bnl.gov.

Health Promotion Program Takes Aim at Stress

The year's spring activity program "Rise & Shine" focuses on stress reduction and moderate physical activity. Stress is unavoidable and contributes to high blood pressure, suppression of the immune system, sleep disturbances, strain in work and family relationships, headaches, muscle tension, depression, increase in the risk of cardiovascular disease, and more. During the eight-week 'Rise & Shine' program, BNLers will learn how to deal with stress using a wide range of methods including yoga, tai chi, relaxation response, meditation, massage, journaling, walking a labyrinth and more. To register, contact the Team Coach in your work group or go to the Health Promotion Program web site at www.bnl.gov/hr/occmcd/HPP.asp and download the registration materials.

CALENDAR (continued)

— THIS WEEKEND —

Friday, 3/31

Child, Family Safety Presentation
11 a.m.-noon. Rec Hall. Jim Nemeth, BNL Training Office, talks on home safety & the Heimlich maneuver for children. A children's movie will be shown in the lounge during the talk. Contact Christine Carter, Ext. 5090, ccarter@bnl.gov, to attend.

Verizon Wireless Demo
11 a.m.-1:30 p.m. Berkner Hall. Verizon Wireless representatives will present BNLers with discounted rates on Verizon cell phones and wireless calling plans. Contact Giuseppe DiBartolo, 917-733-1418.

Sunday, 4/2

Daylight Savings Begins
2 a.m. Brace yourself to lose an hour: clocks are set forward to greet spring sunshine. Many people also check their smoke and carbon monoxide alarms, though often later in the day.

— WEEK OF 4/3 —

Mon.-Fri., 4/3-7

***National Library Week**
Events to be held at BNL's Research Library to mark National Library Week. See page 2.

Tuesday, 4/4

***Talk on ATLAS Experiment**
3:30 p.m. Physics Seminar Room, Bldg. 510. Peter Jenni, CERN, on "The ATLAS Experiment." Tea, 3 p.m. See page 2.

Thursday, 4/6

***Talk on Diabetic Nutrition, Part I**
Noon-1 p.m. Berkner Hall, Room B. Amy Shapiro talks on "Diabetic Nutrition: Essentials for Life." See notice at left.

— WEEK OF 4/10 —

Tuesday, 4/11

***Elder Law Seminar**
Noon-1 p.m., Berkner Hall, Room B. Nancy Burner on "Trusts, Trusts, Trusts: Do I Really Need One?" See notice, left.

Wednesday, 4/12

***BSA Noon Recital**
Noon. Berkner Hall. Roebling Ensemble piano quartet. See notice above, left.

— WEEK OF 4/17 —

Wednesday, 4/19

414th Brookhaven Lecture
4 p.m. Berkner Hall. Anat Biegon, Medical Department, who uses medical imaging for her research on brain injury from trauma and other causes, will talk on "Of Boys and Girls and Bumps on the Head." All are welcome.

Thursday, 4/20

***Talk on Diabetic Nutrition, Part II**
Noon-1 p.m. Berkner Hall, Room B. Amy Shapiro talks on "Diabetic Nutrition: Essentials for Life." See notice at left.

Friday, 4/21

BSA Distinguished Lecture
4 p.m. Berkner Hall. Nobel Laureate Frank Wilczek will talk on "The Origin of Mass and the Feebleness of Gravity." All are welcome.

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.

Haru Matsuri: A Japanese-American Friendship Spring Festival

A Japanese-American Friendship Spring Festival will be held at the BNL on Saturday, May 6, 10 a.m.-4 p.m. in Berkner Hall. This program is made possible in part with grants from the New York State Council of the Arts and the Huntington Arts Council. Sponsored by the Lab's Asian Pacific American Association in collaboration with Ryu Shu Kan of Farmingville and the Unitarian Universalist Fellowship of Huntington, the festival will be held in honor of Asian Pacific American Heritage Month. The event is open to the public. All visitors to the Lab age 16 and over must bring a photo ID.

The festival welcomes spring to Long Island with the exciting sounds of traditional Japanese *taiko* drums, lively Japanese folk dance and music, and a variety of Japanese cultural activities for children and adults. Beginning with the thunder of the Ryu Shu Taiko ensemble, along with the beauty and elegance of the seldom seen Okinawan Royal Court Dance, the festival continues with martial arts demonstrations, including the Okinawan life protection



Junko Nagahama-Fisher performs the Okinawan Royal Court Dance.

art of *Oyata Ryu Te*; Japanese *kendo*, or fencing; *tameshigiri*, a sword art; and a rare demonstration of the donning of a complete set of 17th century Samurai armor.

Exhibits will include a display from the Greater New York Bonsai Society, Japanese ink painting, calligraphy, flower arrangements, embroidery, and Haiku poetry. Children's activities will include origami, dressing in a Japanese kimono, interactive story telling, and the re-enactment of the "Drums of Noto Hanto," a creative exploration of Japanese history, music and art by members of Ryu Shu Taiko. Everyone will be able to partake

in a Japanese tea ceremony, called *Cha No Yu*, and listen to a Japanese chamber music concert of *koto*, a Japanese string instrument, and *shakuhachi*, a Japanese flute.

Tickets are: adults, \$10; children age 5 -12, \$5; and children under 5, free. Buy tickets at the BERA Store, Berkner Hall, weekdays, 9 a.m.-3 p.m., or at the door of the event.

— Diane Greenberg
For more information about this event, call Ext. 3347.

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/.

LABORATORY RECRUITMENT - Opportunities for Laboratory employees

DH2541. RESIDENCE CUSTODIANS (LG-3) - Temporary: 5/8/06 - 9/24/06. Staff Services Division.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside candidates

MK3651. POSTDOCTORAL RESEARCH ASSOCIATE - Requires a Ph.D. in chemistry or materials science with a strong background in organic or inorganic materials synthesis. In addition, experience in synthesizing and characterizing nanoscale materials such as nanotubes, nanorods, nanowires, and nanocrystals (even in an air-sensitive environment) is essential. The ability to set up, manipulate and to learn novel instrumentation and to collaborate with other group members is expected. Expertise in optical (i.e. Raman, fluorescence, UV-vis-near infrared) spectroscopy and microscopy (i.e. AFM, SEM, TEM, HR-TEM) characterization techniques highly preferred. Research will involve the synthesis, characterization, and chemical functionalization of novel nanomaterials. Will coordinate activities with principal investigators from the CMPMSD Department, the Instrumentation Division, the National Synchrotron Light Source Department, as well as the Chemistry and Physics Departments of BNL and SUNY Stony Brook. Under the direction of S. Wong, Condensed Matter Physics & Materials Science Department.

Motor Vehicles & Supplies

04 CROSSROADS CRUISER - 30' trailer, dbl. slide, queen br, lg. bath, bunks, lots of storage, excel. cond., used 5 times. \$21,500/neg. Paula, 924-0139.

00 FORD EXPLORER SPORT XLT - cd, fog lts, p/w, p/s, alarm, hitch, p/moon rf., c/c, new tires and brakes, garaged, excel. cond. 43K mi. \$7,900/neg. Lloyd, 635-327-0106.

00 FORD TAURUS - harvest gold/tan, leather int., excl. cond. in/out, well maint. 80K mi. \$5,500. Pete, 821-2577.

99 KIA SPORTAGE - 4wd, 5spd manual trans, silver, a/c, CD, all pwr., set up for towing with a RV, great on gas. 50K mi. \$4,500/neg. John, Ext. 7018.

96 HONDA ACCORD LX SEDAN - 4dr, a/t, a/c, p/l, p/w, am/fm cass., new radiator, muffler, frt. tires; good cond., runs great. 142K mi. \$3,000/neg. Christopher, Ext. 2366.

94 FORD F150 XLT - 4x4, 8'bed/cap, a/c, p/w, p/l, am/fm/cass, 6cd, cb, new tires, sst/runboards, fair cond. 143.0000 mi. \$3,500/neg. Joe Mondì, Ext. 3499 or 219-7241.

90 NISSAN 240SX - 2 dr., 4cyl., 5spd., am/fm/cd, p/l, p/w, runs well, black. 95K mi. \$1,100/neg. Sean, 203-921-6859 after 5 p.m.

90 ACURA INTEGRA - 4cyl, 4dr, 5spd, a/c, am/fm, p/b, p/s, p/w, new batt, new break parts, timing belt and water pump. 174K mi. \$600/neg. Sayan, Ext. 3725.

88 CHEVY SUBURBAN - 2500 sport utility, new engine, runs great. some body work needed. 130K mi. \$1,800/neg. 5976874.

87 TOYOTA CAMRY - runs great, a/c, p/s, c/c, new batt. 167K mi. \$1,000. Vicky, 466-0087.

83 TOYOTA COROLLA - manual 5 spd., few dents & dings, new windshield, runs very well. 150.000 mi. \$950/neg. Matt, Ext. 2021 or 289-6765.

CAR STEREO - Blaupunkt am/fm/cd receiver w/detachable face, brand new, still in pkg., pd. over \$200, ask \$160. Lu, 549-6037 or 294-7574.

SPOILER - unpainted, for Honda Civic, still in box. \$50. Maryann, Ext. 4705.

Boats & Marine Supplies

21' SEASWIRL STRIPER DUAL CONSOLE - '03 w/Volvo 270 I/O, <25hrs, warr., trl., DF, FF, full canvas, extras. \$29,000/neg. Joseph, 987-4281.

24' AQUASPORT W/A CUDDY - '81 with '03 Yamaha 250 outboard, <40 hrs on motor, still under warrantee, trailer incl. \$17,500. Frank, Ext. 4991.

19' GRADY WHITE TOURNAMENT - '84 w/130 h.p. Yamaha, Magic Tilt trailer, full encl., VHF & DF, ready to go \$7,500. 878-8302.

BOAT TRAILER - 20' Shoreline w/new tires, eletric winch, '83, good cond. \$375. Larry, 473-7832.

BOATS & ENGINE - 12' alum. boat/trailer, \$500; 12' Zodiac in carring bag,\$400; 8hp Yamaha, \$250; all in good shape, save \$ buy all. Mark, Ext. 7638.

PROPELLER - aluminum OMC prop from a 1988 70HP Johnson outboard, excel. cond., 17" pitch. \$30. Brian, Ext. 2799.

Furnishings & Appliances

BABY ITEMS - Gracco swing/bassinnet, Pottery Barn chg. tbl., SnapNGo strol., more. 258-4607.

BOOKCASE - 1 yr. old, white w/2 shelves. \$10. Fan, Ext. 4353 or fanwu@bnl.gov.

CORNER COMPUTER DESK - 1 yr. old, oak color, like new. \$20. Fan, Ext. 4353 or fanwu@bnl.gov.

CRIBS - 2 cribs. \$150 ea. Mary, Ext. 3670.

DINING TABLE - dark pine w/6 chairs, \$100. Chris, Ext. 2094 or 929-5008.

MICROWAVE - Sanyo, beige w/rotating plate, countertop model, 22x12x16, excel. cond. Lloyd, 422-1033.

SINK - almond, cast iron w/faucet, strainer, soap dispenser, fits 16x22 opening, excel. cond. Lloyd, Ext. 5225.

TODDLER BED AND MATTRESS - medium color wood, bed never used, mattress hardly used. \$100, can be sold seperately. Mary, Ext. 3670.

WICKER HEADBOARD - twin size. \$25. Donna, Ext. 2716 or 878-2425.

YOUTH BEDROOM SET - 5 pc., white Formica, incl. plat bed w/ stor, hd bd, student desk, 6 drwr dsr, bk case, \$500 obo. Kenneth, Ext. 2563.

Audio, Video & Computers

BOOKSHELF STEREO - Sharp 3-cd, dual cassette mini stereo system CD-C612, 4 speakers, excel. sound quality. \$30. Chun, Ext. 6058.

CAMERA - 35mm Canon, hardly used, incl. flash attachment, leather bag, few rolls of film, make offer. Fred, Ext. 5319 or 369-9720.

GUITAR PEDAL - Boss DS-1, basic guitar distortion pedal, like new, \$35. Ext. 3621.

INFINITIY IL60 SPEAKERS. - hardly used, paid \$1,500, ask \$700. Mary, Ext. 3670.

PHOTO PRINTER - Canon Pixma Model #iP1600, brand new, never used, still in box missing UPC# on box. \$30. Maryann, Ext. 4705 or 929-4978.

SYNTHESIZER - Clavia Nord Micro Modular, terrific sonic power in a compact package, like new, in box, \$325. Ext. 3621.

SYNTHESIZER MODULE - Kawai K4r, great for electronica and ambient genres, user manual and power supply incl., \$160. Ext. 3621.

VOICE AND GUITAR EFFECT MODULE - Boss VF-1, great effect unit for voice, guitar and keyboards, manual incl, needs generic PSU, \$170. Ext. 3621.

BERA Volleyball League

Current standings as of 3/24/06

Open League A

UCB Roof Co.	64 - 26
EZ Pass.....	61 - 34
Volley Lama.....	47 - 43
Far Side.....	13 - 82

Open League B

Final Standings

Shankadelic	42 - 12
Easy Spikers.....	40 - 14
What Ball, Where?	35 - 19
Late Entry.....	28 - 26
PHENIX Fire	22 - 32
Setting Ducks	15 - 39
Up-Setters	7 - 47

Mixed League 2

Final Standings

Ball Hogs.....	37 - 20
Nuts and Bolts.....	35 - 22
New Blood	30 - 27
Court Jesters	30 - 27
Another Round	24 - 33
Goodtimers	15 - 42

Mixed League 3

Final Standings

Last Minute	49 - 11
Upton Ups.....	42 - 18
Newbies	18 - 42
Volley of the Dolls.....	11 - 49

Children's Swim Lessons, Summer Camp

Applications for swimming lessons and summer camp are now available at www.bnl.gov/bera, in the Recreation Office in 179B, and at the gym & pool.

Sports, Hobbies & Pets

BIKE RACK - holds 4 bikes, bought last year, fits in small hitch. \$100. Mary, Ext. 3670.

NORDICTRACK - Exerciser, works arms and legs. Paid \$600, sell for \$200. Ken, Ext. 3124.

POCKET BIKE - silver, \$175. Maryann, Ext. 4705.

SHIH TZU PUPPIES - 6 adorable, precious cuties, home-bred, 8 wks. old., avail. now. Maria, 284-3314.

SKI BOOTS - Salomon, men's size 11, \$30. Ben, 513-8275.

SKIS - K2 TNC 207cm w/Marker bindings, \$50; Head 190 w/Tyrolia, \$50; Hart Grem-lin 150 w/Tyrolia, \$20. Ben, 513-8275.

TICKETS - Mets, 2 seats, all Tues. & Fri. games avail., Loge Sec. 5, Row G, face value. 751-7023.

Tools, House & Garden

TABLE SAW, DRILL PRESS, BAND SAW - 1960s vintage, brand names, all w/tables, you pick up. \$150 all. Ken, Ext. 3124.

Miscellaneous

50 EUROS - I have 50 Euros and no plans to travel. I believe that converts to \$60 U.S., but I'll take \$50. Tom, Ext. 3312.

LARGE FLORAL WREATH. - blue and mauve hydrangea. \$60. Mary, Ext. 3670.

WEDDING GOWN - white, satin, Victorian style w/headpiece, 4/6, \$90/obo. Bill, 395-9610.

Happenings

CONCERT - Sound Symphony, 8 p.m., 4/1, William Floyd HS; Debussy, Lew (world premiere), Mussorgsky; \$10. Mona, Ext. 5056.

SBU Univ. Cafe, 2 p.m. Sun. 4/2. Show features David Olney. \$20, \$15/students. 632-6027 or gpalai@notes.cc.sunysb.edu.

Lost & Found

FOUND: BAG - w/rolled coins, found in back of Bldg. 490 loading dock. Bob, 516-805-3178.

FOUND - CATEYE VELO2 BIKE COMPUTER - found on B'haven Ave. nr Bldg. 515 on 3/21. Main unit only. Robert, Ext. 3148.

FOUND - black fleece woman's hat, in pkg lot behind Bldg. 130/134. Ext. 5053.

For Rent

BOHEMIA - 3-bdrm, l/r, eik, 1.5 bath., 1st floor of house, util. inc., good for family. \$1,850/mo. Mitch, 218-2722.

BROOKHAVEN - lg. studio apt., brand new kit. & bath, pvt. ent., util. incl., no pets/smkg., sec./refs. req'd. \$800/mo. 286-5413.

BROOKHAVEN HAMLET - 2-bdrm., 2-story farm house, 2 bath, kit., l/r, d/r, wireless internet, lg. yd., screened porch, 9 mi to BNL, + util. \$1,600/mo. Jean, 917-848-2383.

EAST MORICHES - new, grd.-level apt. 1 bdrm, l/r, full kit., full bath, hdwd. flrs., cng. fans, cat, heat/own them., cable, util. inc., pvt. ent. \$965 single, coupl \$985/mo. 878-5798.

FARMINGVILLE - 1 lg. bdrm. in house, share bath w/1, full kit., elec incl., avail. 4/1. \$450/mo. Ben, 513-8275.

Easter Egg Hunt, 4/15

All BNLeers are invited to join the BNL Hospitality Committee on Saturday, April 15, at 11 a.m. at the Recreation Hall, Bldg. 317, for the annual egg hunt. Participate in many games, arts and a raffle. Bring a snack or dessert to share. Bagels, fruits and drinks will be provided.

For more information, contact Petra Adams, 821-9238, petra@adamsovi.com



Pool Closed for Maintenance Until 4/3

The swimming pool has been closed for maintenance since Monday, March 27. It will re-open on Monday, April 3.