the Bulletin

BROOKHAVEN NATIONAL LABORATORY

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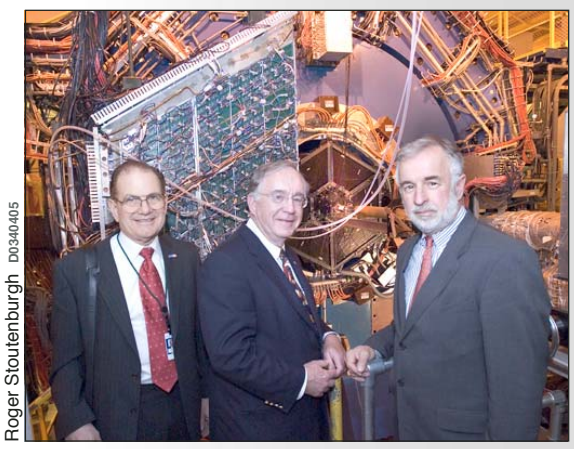
RHIC Scientists Serve Up 'Perfect' Liquid

New state of matter more remarkable than predicted, raising new questions

The four detector groups conducting research at BNL's Relativistic Heavy Ion Collider (RHIC) — a giant atom "smasher" — say they have created a new state of hot, dense matter out of the quarks and gluons that are the basic particles of atomic nuclei, but it is a state quite different and even more remarkable than had been predicted. In peer-reviewed papers summarizing the first three years of RHIC findings, the scientists say that instead of behaving like a gas of free quarks and gluons, as was expected, the matter created in RHIC's heavy ion collisions appears to be more like a liquid. RHIC is funded primarily by the Office of Nuclear Physics in DOE's Office of Science. For a list of RHIC funders, go to: www.bnl.gov/rhic/funding.htm.



Roger Stoutenburgh D0340405

From left: Raymond Orbach, David Hobson, and Tim Bishop are in front of the STAR detector at BNL's Relativistic Heavy Ion Collider.

"Once again, the physics research sponsored by DOE is producing historic results," said Secretary of Energy Samuel Bodman, a trained chemical engineer. "DOE is the principal federal funder of basic research in the physical sciences, including nuclear and high-energy physics. With today's announcement we see that investment paying off."

"The truly stunning finding at RHIC that the new state of matter created in the collisions of gold ions is more like a liquid than a gas gives us a profound insight into the earliest moments of the universe," said Raymond Orbach, Director of the DOE Office of Science.

Also of great interest to many following progress at RHIC is the emerging connection between the collider's results and calculations using the methods of string theory, an approach that attempts to explain fundamental properties of the universe using 10 dimensions instead of the usual three spatial dimensions plus time.

"The possibility of a connection between string theory and RHIC collisions is unexpected and exhilarating," Orbach said. "String theory seeks to unify the two great intellectual achievements of twentieth-century physics, general relativity and quantum mechanics, and it may well have a profound impact on the physics of the 21st century."

The papers, worked on by the four RHIC collaborations (BRAHMS, PHENIX, PHOBOS, and STAR) for nearly a year, will be published simultaneously by the journal *Nuclear Physics A*, and will also be compiled in a BNL report, the Lab announced at the American Physical Society's April 2005 meeting in Tampa, Florida.

These summaries indicate that some of the observations at RHIC fit with the theoretical predictions for a quark-gluon plasma (QGP), the type of matter postulated to have existed just microseconds after the Big Bang. Indeed, many theorists have concluded that RHIC has already demonstrated the creation of quark-gluon plasma. However, all four collaborations note that there are discrepancies between the experimental data and early theoretical predictions based on simple models of quark-gluon plasma formation.

"We know that we've reached the temperature [up to 150,000 times hotter than the center of the sun] and energy density [energy per unit volume] predicted to be necessary for forming such a plasma," said Sam Aronson, BNL's Associate Laboratory Director for High Energy & Nuclear Physics.

(continued on page 2)

Excitement at CFN Site Dedication

Distinguished guests and many BNLers contribute to a memorable event

Roger Stoutenburgh D0350405

Peter Bond, BNL; Dennis Kovar, DOE; Robert Hwang, BNL; Dennis McGinn, Battelle and Brookhaven Science Associates (BSA); U.S. Representative David Hobson; U.S. Representative Tim Bishop; Pat Dehmer, DOE; Raymond Orbach, DOE; Doon Gibbs, BNL; Michael Holland, DOE; Robert McGrath, Stony Brook University and BSA; Praveen Chaudhari, BNL.

At the Center for Functional Nanomaterials (CFN) site dedication ceremony on April 15, the CFN site sign was unveiled — with a drum roll and applause — by several invited dignitaries and BNL leaders.

A crowd of BNL employees came out to participate in the event and, after a welcome by Lab Director Praveen Chaudhari, heard remarks by several of the special invited guests: U.S. Representative David Hobson, Chairman of the Energy and Water Development Appropriations Subcommittee in the House of Representatives; U.S. Representative Tim Bishop; and Raymond Orbach, Director of DOE's Office of Science. The keynote speaker at the luncheon preceding the event was Shirley Strum Kenny, Stony Brook University (SBU) President and Vice Chair of the Board of Brookhaven Science Associates, an institution formed of SBU and Battelle which manages BNL for DOE.

Roger Stoutenburgh D1420405

Foreground: Steven Dierker (left), Associate BNL Director for Light Sources, talks to Raymond Orbach, Director of DOE's Office of Science.

Below: Robert Hwang (right), BNL's Center for Functional Nanomaterials Director, explains aspects of nanoscience research.

Roger Stoutenburgh D0390405

Among other distinguished guests were, from the Office of Science, Patricia Dehmer, Associate Director of the Office of Basic Energy Sciences, and Dennis Kovar, Associate Director for Nuclear Physics, who is also DOE landlord of the BNL site; Michael Holland, Manager of DOE's Brookhaven Site Office; Vice Admiral Dennis McGinn, who is Vice President for Strategic Planning for Battelle; and Robert McGrath, SBU Provost and Executive Vice President for Academic Affairs, who also serves as SBU Vice President for Brookhaven Affairs.

Orbach, in his opening remarks, said, "It's a special pleasure to dedicate what will be a world-class facility." He also had an important message: "We need to convey to the public what science can and will do, to convey to everyone the nature of scientific enterprise and scientific discovery," he said. "What we're doing here today is conveying that message in a whole new era of opportunity. No one knows the dimensions of discovery that are present."

"Research into nanomaterials is one of the most exciting things since the microchip," said Hobson. "Right here at Brookhaven, you're getting to be in the middle of that."

Hobson also praised BNL for its status as a basic-energy research lab, stressing that basic research is an essential, but waning, component of U.S. science. "The [DOE] labs, with some of the military labs, are the last bastions of basic research in our country," he said. "You should all be very proud of what you're doing."

Bishop was equally supportive. "We have on this site some of the world's best minds. The CFN will bring more of the best minds here, and Long Island will benefit from that."

Orbach was also enthusiastic about the National Synchrotron Light Source II (NSLS II), the proposed new, powerful light source at BNL, and its planned relationship to the CFN. "Think of the two as a team," he said. "Without both, we will be robbed of opportunities that they uniquely can bring.

"NSLS II will give us a leg up on every other laboratory in the world," he continued.

Earlier in the day, the special guests toured BNL's Relativistic Heavy Ion Collider, National Synchrotron Light Source, and Positron Emission Tomography facility — to learn about the research performed there. Research from each of these facilities is shown below. To see a video of the event, go to www.bnl.gov/video. — Laura Mgrdichian

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 Chris Carter, Ext. 2873.*
- *Additional information for Hospitality Committee events can be found at the Recreation Bldg. and at the laundry, both 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, and 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: BNL Gospel Choir
5:15-7 p.m. Berkner Hall. All faiths are welcome. www.bnl.gov/bera/activities/choir/.

Mondays & Wednesdays: Pilates
Mon., Noon-1 p.m. in the Rec. Hall; Wed., 5:30-6:30 p.m. in the Rec. Hall. Christine Carter, Ext. 5090.

Mon., Tues., & Thurs.: Kickboxing
$5 per class. Mon., noon-1 p.m. in the gym; Tues., 5:15-6:15 p.m. in the gym; Thurs., noon-1 p.m. in the gym; Thurs., 5:15-6:15 p.m. in Brookhaven Ctr. North Room. Registration is required. Christine Carter, Ext. 5090.

Mon., Wed., & Fri.: Tai Chi
Noon-1 p.m., Brookhaven Center North Room. Adam Rusek, Ext. 5830 or rusek@bnl.gov.

Tuesdays: Welcome Coffee
10-11:30 a.m., Rec. Hall. First Tuesday of every month is special for Lab newcomers and leaving guests. Cindy Ottemann, 849-2646.

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/default.htm.

Tuesdays & Thursdays: Aerobics
5:15-6:30 p.m., $5 per class or $40 for ten classes. Rec. Hall. Pat Flood, Ext 7886.

Tuesdays & Thursdays: Aqua Aerobics
5:15-6:15 p.m. Eight-week session. $20 to attend once a week; $40 to attend twice a week. Ext. 2873 for more information.

Tuesdays & Thursdays: Jazzercise
Noon-1 p.m., Rec. Hall. Preregistration is required. Christine Carter, Ext. 5090.

Tues., Thurs., Fri.: Upton Nursery School
8:30-11:30 a.m. Rec. Hall. Two- and three-day program avail. 727-8082 or Ext. 5090, for information.

Tues., Wed. & Thurs: Rec Hall Activities
5:30-9:30 p.m. General activities, large-screen TV, ping pong, chess, games, and 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. Kati Petreczky, 821-4131.

Wednesdays: Weight Watchers
Noon-1 p.m. Michael Thorn, Ext. 8612.

Wednesdays: Yoga
Noon-1 p.m., Brookhaven Center. Free. Ila Campbell, Ext. 2206, ila@bnl.gov.

Wednesdays: Open Chess Night
5-8 p.m., Rec. Hall. Christine Carter, Ext. 5090.

Wednesdays: Dance Lessons
5:15-8 p.m. Brookhaven Cntr., North Room. BNL Ballroom Dance Club hosts lessons, beginner to adv. John Millener, Ext. 3853.

Thursdays: Reiki Healing Class
Noon-1 p.m., Bldg. 211 Conference Rm. Nicole Bernholc, Ext. 2027.

Fridays: Family Swim Night
5-8 p.m. at the 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.

— THIS WEEKEND —

Friday, 4/22

Earth Day Celebration Presentations
3:30-5 p.m. Berkner Hall. Presentation of Environmental Stewardship Awards. All are welcome.

—WEEK OF 4/25 —

Monday, 4/25

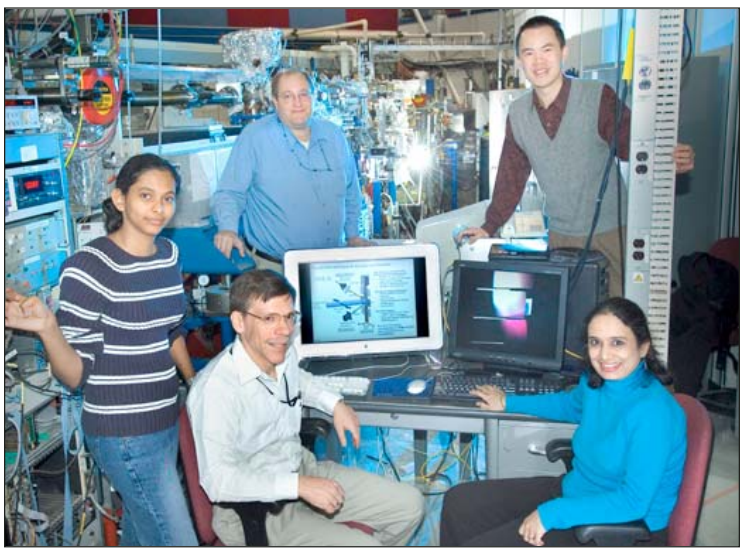
IBEW Meeting
6 p.m., Centereach Knights of Columbus Hall, 41 Horseblock Rd., Centereach. A meeting for shift workers will be held at 3 p.m. in the Union Office. The agenda includes regular business, committee reports, and the president's report.

Tuesday, 4/26

***BWIS Talk: Cancer-Related Studies**
Noon, Berkner Hall. Lisa Diedrich, SBU, on "Complexity & Cancer: Towards an Interdisciplinary Methodology." All are welcome. See page 3.

Nanotubes in a New Light

Pioneering study at the NSLS



Roger Stoutenburgh D1720305

Working on nanotube research at beam line U7A at the National Synchrotron Light Source are: (from left): Tirandai Hemraj-Benny, Dan Fischer, Jim Misewich, Stanislaus Wong, and Sharadha Sambasivan.

At the National Synchrotron Light Source (NSLS), a collaboration of scientists from Stony Brook University (SBU), BNL, and the National Institute of Standards & Technology (NIST) have pioneered a way of using a well-known x-ray technique to study nanotubes — and not just the carbon kind.

The technique, one of several methods in which scientists measure how x-ray light is absorbed by a substance to learn about its composition and properties, is known as near-edge x-ray absorption spectroscopy, or NEXAFS. It is widely used at the NSLS to study many materials. These include polymers, superconductors, biological materials, and extremely thin layers. Now the technique has been applied to nanotubes, with excellent results.

The collaboration's research, which includes several publications, is ongoing. Their most recent work, involving several members of the group working at NSLS/NIST beam line U7A, is a study of boron nitride nanotubes made at BNL.

The paper is published in the February 17, 2005, online issue of the journal *Physical Chemistry Chemical Physics*, and is co-authored by Tirandai Hemraj-Benny, SBU; Sarbajit Banerjee, formerly with SBU, now at Columbia University; Sharadha Sambasivan and Daniel Fischer, NIST; Weiqiang Han, BNL Center for Functional Nanomaterials; James Misewich, BNL Materials Science Department (MSD); and Stanislaus Wong, MSD and SBU. Funded by DOE under contract DE-AC02–98CH10886, with start-up funds from SBU and BNL, the study was also supported by the National Science Foundation and the American Chemical Society's Petroleum Research Fund.

Boron nitride nanotubes are composed of boron and nitrogen atoms. They are tremendously strong, just like their carbon counterparts. Moreover, they possess superior properties, such as flexibility without compromising strength and the ability to withstand very high temperatures. They are being investigated for a wide array of potential applications, such as high-temperature transistors, high-temperature lubricants, photoluminescent devices, reinforcements for weaker materials, and flat-panel displays.

The researchers showed that the NEXAFS technique is very effective at yielding structural information on boron nitride nanotubes. Their results show that the boron nitride nanotubes in their sample have atomic structures that mimic a particular type of carbon nanotube, in which the carbon atoms bond hexagonally, resembling a rolled-up sheet of chicken wire fence.

The NEXAFS data also reveal that the boron nitride nanotubes have few defects and are highly crystalline — forming ordered arrangements — perhaps even more so than carbon nanotubes. This is an important property because many of the potential applications of boron nitride nanotubes, such as flat-panel displays, would require that they form crystalline patterns.

— Laura Mgrdichian

'Perfect' Liquid Served Up at RHIC *(cont'd.)*

But analysis of RHIC data from the start of operations in June 2000 through the 2003 physics run reveals that the matter formed in RHIC's head-on collisions of gold ions is more like a liquid than a gas.

"The current findings don't rule out the possibility that this new state of matter is in fact a form of the quark-gluon plasma, just different from what had been theorized," Aronson said. Many scientists believe this to be the case, and detailed measurements are now under way at RHIC to resolve this question.

Theoretical physicists, whose standard calculations cannot incorporate the strong coupling observed between the quarks and gluons at RHIC, are revisiting some of their early models and predictions. The unexpected findings also introduce a wide range of opportunity for new scientific discovery regarding the properties of matter at extremes of temperature and density previously inaccessible in a laboratory.

"The finding of a nearly perfect liquid in a laboratory experiment recreating the conditions believed to have existed a few microseconds after the birth of the universe is truly astonishing," said Praveen Chaudhari, BNL Director. "The four RHIC collaborations are now collecting and analyzing very large new data sets from the fourth and fifth years of operation, and I expect more exciting and intriguing revelations in the near future."

— Karen McNulty Walsh

For more information, see http://www.bnl.gov/bnlweb/pubaf/pr/PR_display.asp?prID=05-38.

How Poplar Trees Respond To Simulated Attack

New Use of PET Imaging

Scientists at BNL have applied some of the same techniques used in medical imaging to track the distribution of nutrients in poplar trees in response to a simulated insect attack. The research provides new insights on a long-debated theory about how plants respond to environmental stress and shows that radiotracer imaging can be a big help in unraveling plant biochemistry.

Done in collaboration with scientists from Tufts University and Stony Brook University, the research is reported in two articles, to be published in *Plant, Cell & Environment* (June 2005) and in *New Phytologist* (August 2005), both now available online. The research was funded by BNL's Laboratory Directed Research & Development program with support from the Office of Biological & Environmental Research within DOE's Office of Science.

"Just as we've learned to use radiotracers to image the inner workings of the living human brain, we can now track biochemical and physiological processes within plants using these powerful imaging tools," said Richard Ferrieri of the Chemistry Department, who leads BNL's role in the research. "This enables us to study the effects of external factors like insect attacks, disease, elevated carbon dioxide, soil toxins, and drought on vital plant processes."

Ferrieri says scientists trying to improve plants' resistance to environmental challenges — or their ability to perform useful tasks such as carbon sequestration, phytoremediation, or the production of bio-fuels — could also use functional imaging to help track their progress.

Roger Stoutenburgh D3150503

Richard Ferrieri (left) and co-author Dennis Gray, now with the University of Connecticut, position a plant leaf in one of BNL's positron emission tomography (PET) scanners. Their research using radiotracers like those used in human PET scanning is helping to unravel the mysteries of plant biochemistry.

In the *New Phytologist* study, the scientists asked how plants deal with an external stress, such as an insect attack. "We know that plants respond defensively to attacks, for example, by producing chemicals that kill off the attackers or make their own leaves less tasty," said Benjamin Babst, a Ph.D. student in the biology department at Tufts University and lead author on that paper. "But there's a suspicion that plants also respond by building up tolerance, for example, by putting aside more carbon into storage so it will be available to help the plant spring back to life once the attack has passed. Using the techniques developed at Brookhaven, we now have a way to find out."

"Carbon dioxide is a plant's major resource. To use radiotracer technology to 'see' how it is allocated into various biochemical pathways is an incredibly powerful tool for learning how plants cope with stress," says plant scientist Michael Thorpe who is helping to build the plant-imaging program at BNL.

Plants subjected to the jasmonic acid "attack" produced more radiolabeled sugar and delivered more of it to the roots than plants untreated with the hormone. "This is pretty convincing evidence that plants can respond 'passively' by redirecting their nutrients away from the site of attack and placing them into storage for later regrowth," Ferrieri said.

Supporting evidence comes from the amount of carbon-11 the scientists detected in isoprene, a hydrocarbon gas that is a byproduct of sugar synthesis in the leaves. That research, reported in *Plant, Cell & Environment*, shows that, in response to jasmonic acid "attack," the plants diverted more newly acquired carbon into isoprene production. "Scientists are only just beginning to realize that isoprene has a vital role as an antioxidant in helping plants tolerate many different stresses, for example, from insects or ozone," Ferrieri said.

The scientists have not yet determined if more sugar gets stored in the plants' roots, a key component of the theory. "Because the radiotracer has such a short half-life (20.4 minutes), we can see that more is going to the roots, but not the chemical form it takes there," Ferrieri said. "We will have to do more tests to see what compounds are formed."

Ferrieri believes there may be an increase in compounds that resist microbial attack after plants have soaked up atmospheric carbon dioxide, therefore countering the effects of fossil-fuel combustion. This is a strategy of carbon sequestration — the provision of long-term storage of carbon so that the buildup of carbon dioxide in the atmosphere will be reduced. — Karen McNulty Walsh

Coming Up
National Synchrotron Light Source Annual Users' Meeting

The 2005 National Synchrotron Light Source Annual Users' Meeting will be held at BNL from Monday to Wednesday, May 23-25.

To avoid a late fee, register by Friday, April 29. After that date, the last date to register, with a late fee, is Friday, May 6. More information is available at www.nsls.bnl.gov/users/meeting/.

Get to Know Your Lab
Lunchtime Tour — Plant Trees, 4/29

As part of the reforestation of the BNL site and to provide a proactive welcome to spring time this year, the Employee Lunchtime tour on Friday, April 29, will be dedicated to planting trees. The group will meet at noon in the upper lobby of Berkner Hall to be taken by bus to the planting area, which is inside the ring of the Relativistic Heavy Ion Collider (RHIC). Tim Green of the Environmental & Waste Management Division will stand ready with the trees, trowels, and gloves; tour members will come up with the motivation and muscle. Ticks welcome the spring also, so wear anti-tick clothing and shoes. As the RHIC science program will still be running, acknowledgment waivers will be signed when the group meets at noon. As usual, at the end of the tour, the group will be returned to Berkner Hall by 1 p.m.

BWIS Talk on Cancer-related Studies, 4/26

Sponsored by Brookhaven Women in Science, Lisa Diedrich, Assistant Professor in the Women's Studies Program at Stony Brook University, will give a talk titled "Complexity and Cancer: Towards an Interdisciplinary Methodology," on Tuesday, April 26, at noon in Berkner Hall].

In her talk, Diedrich will discuss an interdisciplinary methodology that has emerged from her training in three fields of study: women's studies, cultural studies, and science. In her research and women's studies classes, Diedrich examines the way particular objects of study — for example, illness or gender — cross multiple domains, such as literary, historical, philosophical, cultural, biological, and medical, but do not belong completely to any particular one of these domains. Diedrich will illuminate this interdisciplinary methodology through an investigation of several of her own case studies related to cancer.

All are welcome to the talk. For more information, call Lynne Ecker, Ext. 2538.

Two Talks on Cancer Awareness, 4/27, 5/3

The Health Promotion Program of the Human Resources & Occupational Medicine Division is sponsoring two talks on cancer. Register for either or both with Michael Thorn, Bldg. 490 or mthorn@bnl.gov.

Testicular Cancer & Self-Exam, 4/27

Howard Adler, M.D., Assistant Professor of Clinical Urology & Director of Stony Brook University Hospital's Prostate Care Program will talk on "Testicular Cancer and Self-Exam," on Wednesday, April 27, noon-1 p.m. in Berkner Hall. All are welcome.

Talk on Breast Health and Cancer Awareness, 5/3

Doris Weisman, NP, MS, Clinical Instructor in Stony Brook University's School of Medicine & Clinical Assistant Professor in the School of Nursing, will give a talk on "Breast Health and Cancer Awareness: Early Detection Plan," on Tuesday, May 3, noon-1 p.m. in Berkner Hall, Room B. Time will be reserved for questions and answers. All are welcome, but space is limited. Register early.

One-on-One Retirement Counseling

A TIAA-CREF consultant will visit BNL on Tuesday, May 3; Tuesday, May 10; Wednesday, May 11; Friday, May 13; and Tuesday, May 24, to answer employees' questions about financial matters.

The consultant will help BNLers:

- Understand the importance of protecting your assets against inflation
- Find the right allocation mix for you
- Learn about TIAA-CREF retirement income flexibility
- Compare lifetime income vs. cash withdrawal options.

For an appointment, call Kathy Murphy, (866) 842-2053, Ext. 4625. (Note: Not the on-site Ext. 4625.)

Fidelity Investment Counseling, 4/26

A Fidelity Investment representative will be at the Lab on Tuesday, April 26, to hold sessions with individual employees interested in learning more about their retirement savings and investment options. Schedule one of the 45-minute appointments by calling (800) 642-7131.

Wanted: Lab Historical Equipment, Memorabilia

On August 14, Summer Sundays, the days when the general public is invited to come and visit the Lab, will be in full swing. As usual, on each Sunday, starting July 10, a particular facility or theme will be featured. August 14 will be "Celebration Summer Sunday," and the spotlight will be on the history of the Lab and the site. The Summer Sundays organization team is looking for unique old items, such as old equipment and memorabilia, that can be borrowed and displayed for that day. If you can help, contact either Barbara Blenn, Ext. 4458 or Mark Davis, Ext. 2165.

New on the Web...

Last week, the Physics Department unveiled its new website at http://www.bnl.gov/physics. Featuring the Lab's standard graphic identity for web communications, the redesigned site contains dynamic elements such as self-updating news and seminar/colloquia listings. If you are interested in moving your department's website to this type of template, contact Gary Schroeder at Ext. 7045 or www@bnl.gov.

Asian Pacific American Association News

May is National Asian Pacific American Heritage Month. Events include:

- **Month-long** poster display, Berkner Hall lobby
- **Saturday, May 7**, 6:30-9 p.m. At a "**Martial Arts Expo**" in Berkner Hall, local Long Island studios and several on-site BERA organizations will demonstrate art forms such as Kung Fu, Tai-Chi, Jiu Jitsu, Karate, Tae Kwon Do, Kendo, and Ai-ke-do. Tickets are $10/adult, $5/children 12 years and under, at the BERA Store, Ext. 3347; or from Beth Lin, Ext. 3372; Susan Eng Wong, Ext. 7988; or Marie Van Buren, Ext. 4727.
- Date to be announced: **Tinikling Bamboo Dance**, Philippines.

TFCU Is Moving

Effective May 2, the BNL branch of Teachers Federal Credit Union will be relocating to Building 129, on the corner of Technology Street and Cornell Avenue, east of the Physics building and opposite the Tandem Van de Graaff. The staff and the hours of opening will remain unchanged.

BERA Golf Association

The BERA Golf Association is now accepting applications for the 2005 golf league. This year there will be both individual and team divisions.

To obtain an application, visit the club website at www.bnl.gov/bera/activities/golf/ or contact Jeff Williams, Ext. 5587 or jwilliams @bnl.gov.

Thanks, For the Record

The Records Management Office thanks everyone for their support and participation on April 14, National Records & Information Management Day.

Of the 100-plus people who stopped by the table of informative material in Berkner Hall lobby, 80 participated in a raffle which required taking the "What's your Records Management I.Q." quiz. Richard Gray, a contractor working for the Environmental Restoration Division in Building 51, was the lucky winner of the FLIK gift certificate for lunch.

Arrivals & Departures

Arrivals

Jacob Blackford ..... NNS

Departures

Isabel Abreu ..... Chemistry
Tanhong Cai ..... Chemistry
Donna Earley ..... Physics
Burt Holzman ..... Chemistry
Peter Kroon ..... Physics

Register Your Child for Swim Lessons by 6/6

BERA/Recreation will sponsor swimming lessons to be held at the BNL pool from Thursday, June 30, to Friday, August 26. The program is open to children and grandchildren of BNL employees and retirees. Children must be a minimum of 42 inches tall to participate.

Space is limited and all applications must be received by Monday, June 6. For information and applications, go to the BERA web site, or stop in at the Recreation Office in Building 179B.

Native American Cookbook in BERA Store

Stop by the BERA Store in Berkner Hall to pick up a copy of *Wisdom of Elders*, a 70-page, softbound cookbook filled with American Indian recipes, tribal profiles, methods for preparation, and colorful ideas for menu planning. All proceeds go to the National Society for American Indian Elderly. For more information, contact Kate Durnan, (520) 383-6075, kated@todhs.com.

Calendar
(continued)

Wednesday, 4/27

KeySpan Service Demo

10:30 a.m.-2 p.m., Berkner Hall. KeySpan offers BNLers discounts on energy and shop-at-home services.

***Talk on Testicular Cancer**

Noon-1 p.m. Howard Adler, Director of Stony Brook University Hospital's Prostate Care program will talk on "Testicular Cancer and Self Exam." All are welcome. Register with Michael Thorn, Bldg. 490 or mthorn @bnl.gov.

Thursday, 4/28

***Take Our Daughters, Sons, to Work Day**

BNL parents of children ages 10-15 are invited to bring their child or children to participate in BNL's annual "Take Our Daughters & Sons to Work Day." Contact Liz Gilbert, Ext. 2315 or gilbert@bnl.gov for more information.

***African Drumming Open Circle**

5:30-6:15 p.m. Gazebo, near the softball fields. Sponsored by new BERA club, Ago Amé. All are welcome. Bring your own drum, shakaree, rattle, etc., if you would like to participate actively.

Friday, 4/29

***Get to Know Your Lab — Plant Trees!**

Noon. The Employee Lunchtime Tour will be dedicated to planting trees. Meet at noon in Berkner Hall lobby to go by bus to the planting area. Trees, trowels, gloves provided — wear suitable clothes, shoes. Return to Berkner by 1 p.m. See notice at left.

Saturday, 4/ 30

Brooklyn Botanical Garden Bus Trip

BERA/APAA Heritage event. Sold out.

— WEEK OF 5/2 —

Tuesday, 5/3

***Talk on Breast Cancer Awareness**

Noon-1 p.m., Berkner Hall, Room B. Doris Weisman, Stony Brook University School of Medicine, will talk on "Breast Health and Cancer Awareness, Early Detection Plan." All are welcome. Register with Michael Thorn, Bldg. 490 or mthorn @bnl.gov.

Saturday, 5/7

***APAA Heritage Event, Martial Arts**

6:30-9 p.m. Berkner Hall. Tickets are at the BERA Store, Berkner Hall, $10/adults, $5/children. See notice, left.

— WEEK OF 5/9 —

Wednesday, 5/11

***A Celebration of Richard Feynman**

4 p.m. Berkner Hall. Bookreadings, bongo drum-playing. See page 4.

Friday 5/13

***Hampton & Kingpins in Concert**

8 p.m. Berkner Hall. Sponsored by the BNL Music Club, Joe Hampton and the Kingpins, a local band that plays classic rock, blues, and original songs and has appeared in many Long Island venues, including the Riverhead Blues Festival, will appear in concert. And brilliantly talented, 16-year-old singer-songwriter Caitlyn Amanda, featured on WUSB 90.1 and WLIU 88.3 FM, will open the show. All are welcome. Visitors to the Lab of 16 and over must carry a photo ID. Tickets are $8 in advance at the BERA Sales Office, $10 at the door.

— WEEK OF 5/16—

Wednesday, 5/18

BSA Noon Recital

Noon, Berkner Hall. Ishan Johnson, bass-baritone, who sings with the Boston Pops and the Georgia Mass Choir, will perform.

— WEEK OF 5/23 —

Mon.-Wed., 5/23-25

***NSLS Annual Users' Meeting**

Register by 4/29. More information is available at www.nsls.bnl.gov/users/meeting/.

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

Classified Advertisements

Placement Notices

The Lab's placement policy is to select the best-qualified candidate for an available position. Candidates are considered in the following order: (1) present employees within the department/division and/or appropriate bargaining unit, with preference for those within the immediate work group; (2) present 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; call the JOBLINE, Ext. 7744 (344-7744), for a list of all job openings; use a TDD system to access job information by calling (631) 344-6018; or access current job openings on the World Wide Web at www.bnl.gov/HR/jobs/default.htm.

The following position has been exempted from the freeze by the Deputy Director:

LABORATORY RECRUITMENT - Opportunities for Laboratory employees

NS2888. PROJECT ENGINEER II (P-7, reposting) - Requires a BS degree in nuclear, electrical, or mechanical engineering or health physics and at least six years experience in radiation protection instrument calibration, measurement quality assurance techniques, and in development of radiation protection instrument calibration policies/procedures. Excellent oral and written communication skills are required. Computer skills, specifically in MS Office applications and SQL databases, especially SYBASE, are highly desired. Knowledge of pertinent regulations, DOE orders and industry consensus standards is highly desirable (e.g., 10 CFR Part 830.120, 10 CFR Part 835, ANSI N323A, ISO/IEC17025. Under general direction, will be responsible for implementing and maintaining a measurement quality assurance program that ensures compliance of the Division's Instrument Calibration Program to DOE regulations, prime contract requirements and to enable the RCD to achieve Health Physics Society calibration laboratory accreditation. Will be responsible for planning, budgeting, scheduling, coordinating, and performing phases of the work required to meet this primary responsibility. This work includes development and maintenance of calibration laboratory procedures, performance of routine program self assessments, providing engineering oversight to instrumentation technicians, maintaining traceabilty of all M&TE and radiation calibration standards, calibration of instrumentation, maintaining group training systems, and leading the group quality improvement team. Radiological Control Division.

TB3482. PROJECT ENGINEER I (P-9)/INDEPENDENT OVERSIGHT ASSESSOR – Requires a BS in science or engineering, MS preferred, with a minimum of ten years' Laboratory operations experience that includes environment, safety, health and quality. Knowledge of PAAA nuclear safety rules and management control systems and processes is desirable. Experience in risk assessment, project management, and information technology is a plus. Primary roles are to verify the effectiveness, efficiency, and adequacy of self-assessment programs at the Laboratory and lead and or participate in risk-based independent assessments. Will interface with senior management and must have excellent verbal and written communications skills. Internal Audit & Oversight Office.

OPEN RECRUITMENT – Opportunities for Laboratory employees and outside candidates.

MK2932. POSTDOCTORAL RESEARCH ASSOCIATE – Requires a Ph.D. in atmospheric science or related field. Will participate in the development and evaluation of modules representing the chemical and microphysical evolution of aerosols using urban-to-regional and regional-to-global chemical transport models in conjunction with the DOE Atmospheric Science Program. Initial focus will be on the representation of secondary organic aerosol formation and nucleation processes. These models will subsequently be used to simulate the lifecycle of atmospheric aerosols and address the impact of aerosols on climate. Under the direction of D. Wright, Environmental Sciences Department.

Motor Vehicles & Supplies

04 NISSAN MAXIMA SL - loaded, heated strg. whl., 14K, dk. blue. $25,000/neg. 368-0452.

03 YAMAHA TTR125-L - 4-str. off-rd. larger wheel model, fr. disk brake. low hrs., excel. $1,800. Mike, Ext. 7081 or 929-5502.

03 MITSUBISHI LANCER ES - 4dr, 4-cyl, 5spd., cd, p/w, p/l, a/c, new fr. brakes, grt. mlg. 38K mi. $8,700/neg. Ext. 3973 or 727-6959.

02 FOREST RIVER FLAGSTAFF 25LB - 25' trvl. trailer, slps. 5, 20' awn., ht/AC, used 3 times. $10,500/neg. Gina, Ext. 8600 or 208-3959.

02 VW JETTA GLS - silver/blk, 1.8L Turbo, auto, a/c, p/w/l, p/snrf, tilt, heated lthr, sport pkg, mint. 57K mi. $10,500. 369-5597.

01 SUZUKI JR50 - 50cc dirt bike, grt. cond., $800/neg. Joseph, Ext. 7316 or 886-1650.

00 DODGE RAM 1500 - SPORT model, V8, ext. cab, long bed w/cap, 4x4, 48K mi. $16,500/neg. Gina, Ext. 8600 or 208-3959.

00 JEEP GRAND CHEROKEE LTD. - 6-cyl., 4x4, 4-dr., pwr. s/roof, a/c, a/t, p/b, p/l, p/s, loaded. 70K mi. $14,000/neg. 399-5099.

98 PLYMOUTH NEON - 2LSOHC-4-cyl. 4dr., a/t, a/c, abs, am/fm/cass. p/s, p/b, 70K mi. $2,900/neg. Joe, Ext. 4040 or 987-9707.

97 SUBARU LEGACY WAGON - All wheel drive, green, a/t, a/c, am/fm/cd, new brakes, runs well. 124K mi. $2,400/neg. Ext. 4089.

97 MERCURY SABLE DURAMAX - V6 eng., 4-dr., blk w/tan int., excel. cond., clean, runs well. 120K mi. $2,000. Fred, 369-9720.

96 JEEP ORVIS - 4wd. All new brakes & rotors, new front drive axles, just tuned up and serviced. 88K mi. $7,000. 255-1431.

96 CHRYSLER CIRRUS LXI - 4-cyl, a/t, a/c, abs, c/c, p/w, leather, good cond, recent insp, carfax info. 75K mi. $3,000. Mark, Ext. 2247.

95 JEEP WRANGLER - Must sell. Black body. Tan top. Won't shift in 5th gear. Runs. 139K mi. $2,000/neg. Sachin, Ext. 2197.

95 DODGE CARAVAN - red, 6-cyl., runs well. 128K mi. $2,100. Rich, Ext. 5562 or 471-8043.

94 TOYOTA 4X4 TRUCK - Standard bed with topper. Moving out of country. Great shape. 36K mi. $6,500. Reddy, Ext. 3747.

94 SATURN SL1 - a/c, all pwr. cruise, recent eng., tranny, time belt, rad., etc., 28 hwy/19 city, rec/carfax info $2,000/neg. 225-0642.

94 NISSAN SENTRA XE - 2dr, a/t, a/c, c/c, tilt, alarm, am/fm/cass dolby, new axles, alt., tires, batt., brks., more. 134K mi. $1,495/neg. Dev, Ext. 2643 or 471-4116.

93 CAVALIER CONVERTIBLE - Excel. on gas mileage. Beaut. maint., all new parts, 100K mi. $1,000/neg. Bud, 516-486-3703.

91 TOYOTA COROLLA - a/t, a/c, am/fm, 4-drs, runs v. well, hwy mileage. 140 mi. $1,500/neg. 917-628-0339.

86 ALFA ROMEO GTV 6 - Red/tan lthr.,5-spd., 2+2 sports car, s/roof, serv. recs., garaged, vg. cond. 93K mi. $3,500. Ext. 2913.

97 FORD TAURUS - 4dr, a/t, V6, a/c, c/c, p/l, p/s, p/w, am/fm and cd, good running cond. 108K mi. $700/neg. Li, Ext. 7604.

Boats & Marine Supplies

30' SEA RAY WEEKENDER - T/350 I.B. Merc. cruisers, frsh-wtr.-cooled, low hrs. mint, low hrs., prof. maint. $24,000/neg. 878-8059.

27' CHAPPARAL SIGNATURE - 1990 I/O, Aft cab., full camper back, slps. 6, a/c, lo hrs, well maint. $17,000/neg. 588-1214 aft. 6 p.m.

19' GRADY WHITE TOURNAMENT - 130 hp Yamaha, Magic Tilt tlr., full encl., vhf, dpth fdr., swim plat., $11,000/neg. 878-8302.

14' 1999 HUNTER SAILBOAT - formerly JY14 - roller-flg. jib; launchg. dolly; self-bailg, retrtb. keel; stable. $3,000/neg. 675-0207.

Furnishings & Appliances

BEDROOM - Q/size platform waterbed w/ mirror hdbrd.,2 nightstds., 2 lamps, armoire, triple dresser w/mirr. $500. 205-0373.

BEDROOM SET - Pine, pecan stain. Q-headboard. 2 nightstds., dressers, 1 w/harp-stand mirror. $900. Ext. 3932 or 631472 9789.

BREAKFRONT - 8'6"wx7'h, lighted bridge, mirror back, glass shelves, dk. wd. Mtchg. tbl., 6 chairs, $700. Frank, Ext. 2022 or 395-1125.

CLOTHES DRYER - Frigidaire sup. cap. w/ auto & time dryer cycles, 4-temp opt., almost new, cost $349, sell $250 obo. 208-0408.

DINING ROOM TABLE - solid honey oak table w/2 leaves, 4 uphol. arm chairs, table protective pads, $500. Thomas, 909-1498.

ENTERTAINMENT CENTER - 4-pc., perfect for big screen TV. Maple wood. $1,000. 2 full leather couches, $1,000. 828-2188.

FURNITURE - Dining room table and chairs, 75$. Futon $40. Ronald, 298-5625.

GLASS TABLETOP - Round, 32" diameter, 1/2 thick. $35. 803-0506.

OAK WALL UNIT - 3pc. w/glass lighted shlvs. & drs., pull-out TV table & slide-in drs., storage for CDs/videos, more. 929-4438.

Audio, Video & Computer

DELL COMPUTER - 4100 System, 1Ghz, 320Mb RAM, 20Gb HD, 17" Mon., more, $275. Wireless Keybrd/mouse $20, CDROM $5. Ext. 7237 or 929-6571.

STEREO - Fisher 100W rack system, amplifier, cassette deck, am/fm tuner, turntable, speakers. $75 obo. Jim, Ext. 6222.

Sports, Hobbies & Pets

BICYCLE - '02 Women's Fuji finest w/24 spds., white & blue, orig. bill of sale, $650, used 5 times, $350. 924-0730.

CHESS BOOKS - lg. collection, new & old, call for titles or full list. Mitchell, Ext. 5340.

COOK AND GARDENING BOOKS - lg. and varied collection, price neg. 744-4611.

EXERCISE EQUIPMENT - Universal 4-station exercise machine w/extra weights, paid $2,000, sell for best offer. 208-0408.

METAL LATHE - Craftsman model 109.21270. 3&4 jaw chucks, drill chuck, toolholder, most gears. $300. Ext. 4698.

POOL TABLE - Reg. size, vg. cond., slate top, sticks, balls, rack, chalk. $900. 803-0103.

SOFTBALL MITT - cowhide, rawhide-laced, adult-size left glove for right-handed player. Almost new. $45. 803-0506.

Tools, House & Garden

BARBECUE - With full tank of propane, v.gd. cond. $35. Joseph, Ext. 7316.

DEHUMIDIFIERS - 3 old dehumidifiers that all work well, $25 ea. or all 3 for $60. Joseph, Ext. 7316 or 886-1650.

FIR TREES - Spruce & Douglas firs, B & B, 5-8 ft., $45-$55 ea. Excel. for yard, privacy. Tom, Ext. 4507 or 878-1060.

LADDER - folding, 7 ft, $ 20. Joseph, Ext. 7316 or 886-1650.

LAWN MOWERS - (3), 20", all run well. $40 ea. neg. Joseph, Ext. 7316 or 886-1650.

LEAF SWEAPER - 30", push style, low usage, excel., $30. Jim, Ext. 6222.

POLE SAW - Remington telescoping pole saw w/10" elec. chain saw removable for conventional use. $75. Ext. 3973.

POOL EQUIPMENT - 1.5 HP Pool Pump &16" Sand Filter w/valve, used 2 mos., $75/ea.; chemicals, vac. tools, more. 225-0642.

POOL PUMP & FILTER - Hayward, 1/2 hp., used 4 seasons, excel. cond., $50; solar panels to heat pool, two 4'x20' vinyl panels. (orig. $200 ea.) $50/both. 849-3862.

TOOLS - Sears 3hp/30gal, 220 volt air compressor w/hoses. Ask $150. Car ramps $15, router w/attachments $75. 205-0373.

Miscellaneous

CHILD'S CAR SEAT - for 20-80 lbs, gd. cond., 3 yrs old, orig. $80, ask $20. 974-4851.

LIFE GUARD FOR HIRE - Cert. Life Guard, HS Student, avail. for hire for your child/family party. Responsible, reasonable rates. Christine, Ext. 5090 or 821-2558.

MINK COAT - Blackglamma Ranch, size 12, $400 obo; fancy long beige chiffon gown, 2 formal dresses, blk & floral. Laura, 744-4611.

MOVING SALE - contents of apt for sale, computer desk, table, display case, stereo, fax, conv/sofa, loveseat, all neg. 205-0373.

ROOF-TOP CARGO CARRIER - Sears, hard plasic with locks, mounts for roof rack cross rails. $35. John, Ext. 5100 or 473-0794.

TOY CARS - 2 Fisher Price, ride-on type, each w/batteries and chargers, $40 for both. Chris, Ext. 2094 or 929-5008.

Community Involvement

BIG BROTHERS/SISTERS - Big Brothers/Big Sisters of L.I. needs male volunteers especially on south shore. 516-731-7880.

Free

DOG - 10 mo. old white male terrier mix. Cute dog, 45-50lbs. Elderly owner looking for good home for Scruffy. Miriam, 399-3098.

PENGUIN - 20-in. stuffed animal, black white and violet, in excel. shape. Warren, Ext. 2080 or 751-5245.

REFRIGERATOR - Whirlpool, 26 cu. ft. side-by-side, white, water/ice in the door. Tom, Ext. 3085 or 849-4167.

Wanted

CONDO RENTAL - wanted first week in June, West Palm Beach, Florida area. Ext. 4303.

LAPTOPS - Will pay cash for old or broken laptops. . Dan, Ext. 3928 or 631-678-8502.

P/T YOUTH GROUP LEADER - W.R. Congregational Church seeks person to work w/HS program. See www.wrcong church.org/job.htm for more info. Peter, 929-8849.

TREADMILL - Looking to purchase used treadmill. Tammy, 516-369-6888.

Lost & Found

FOUND - KEYS - Bldg. 30 pkg. lot. Ext. 5149.

For Rent

BELLE TERRE - 4-bdrm., 2-bath cottage w/f/p, on 5 acres, secluded, eik, w/d, full cellar, avail. now. $2,400/mo. 921-3755.

BELLPORT VILLAGE - 1-bdrm gr-flr. apt. in 2-fam. home, hwd. floors , use of yard, sep. dr/way, util. incl. $1,200/mo. 744-2095.

CENTER MORICHES - like new, 4-bdrm. waterfront house, dock, eik, 2 baths, l/r, d/r, f/p, w/d, d/w, $2,100/mo. 261-7908.

EAST MORICHES - 1-bdrm. apt. on lake, w/deck, l/r, eik, c/a, w/d, d/w, heat incl., no smkg./pets, adults only, refs., 1 mo. rent & sec. req'd. $1,350/mo. Johnson, 874-0148.

EAST PATCHOGUE - like new, 3-bdrm. house, 2 bath, kit., d/r, l/r, f/p, cac, finish. bsmt., gar, deck, + util. incl., avail. immed. $2,200/mo. Marie, 475-2068.

MASTIC BEACH - 2-bdrm. cottage, lg. kit., dinette, lg. l/r, bath, w/d hookup, pkg., avail. 5/1. 1 mo. rent/1 mo. sec. req., util. extra. $1,200/mo. 395-1128 or 516-848-4388.

MEDFORD - new 2-bdrm., 10x10, 10x12 bsm't apt., lg. kit., lg. dr/lr, side yard, off str. pkg., utils incl., no smkg./pets, $1,200/mo. 374-3967.

RIDGE - mint 2-bdrm. apt. on ground floor, quiet, pvt. parking, uitl. incl. no/pets/smoking, l/r, eik, avail. $1,350/mo. 678-6456.

RONKONKOMA - 3 bdrm. attch. gar., den area, attic stor., full-size w/d, dishwasher, SubZero fridge, yard, 20 min to Lab, avail. 5/1, 2/3 LIPA + $1,750/mo. 516-330-8511.

SHIRLEY - Big 2 bdrm apt, ground level, 2 mi. to Lab, incl. heat, elec., TV, water, a/c, avail. June. No pets. $1,200/mo./neg. Tomasz, Ext. 7448.

SHIRLEY - 1 bdrm. bsmt. apt., lg. l/r, kit. combo. 10 min to Lab. Pvt. ent. Nr. beach. Util. inc. $950. 1 mo. sec., avail 5/1. $950/mo. Celia, Ext. 3847, 645-3751

SHOREHAM - 1 BR apt, sep. entrance, kitch. & bath, big yard, sep. therm, cable TV, util. inc., avail. 6/1, 1 mo. sec. No smoking/pets; 7 min to lab. $725/mo./neg. 821-4318.

SHOREHAM/RIDGE - 1 bdrm., eik, lg. l/r, priv. ent., no smkg/pets. $800/mo. 744-8085.

KISSIMMEE, FL - 3 mi. to Disney, 5 bdrm., 4 bath, pvt. pool/spa, game rm., tennis, www.family-vacation-homes.com, incl. all. 6/27-7/2. $675 Carrie, 889-5303.

For Sale

ARUBA - time-share, 2 bdrm lock-out. Marriott, ocean view. Exchangeable for other locs. $17,500. Robert, Ext. 7238.

In Appreciation

To all my BNL friends and co-workers, thank you for your wonderful farewell send-off. Your kind wishes and generosity are overwhelming and won't be forgotten.

— Donna Earley

Thank you to all our friends at BNL for their love and support after the passing of our beloved son-in-law, Kevin. We appreciate your caring.

— Lois & Bob Marascia

Take Daughters, Sons to Work, 4/28

Lab parents of children ages 10-15 are invited to bring their child or children to participate in BNL's annual "Take Our Daughters & Sons to Work Day," to be held on Thursday, April 28. Contact Liz Gilbert, Ext. 2315 or gilbert@bnl.gov for more information.

Joe Hampton, the Kingpins in Concert, 5/13

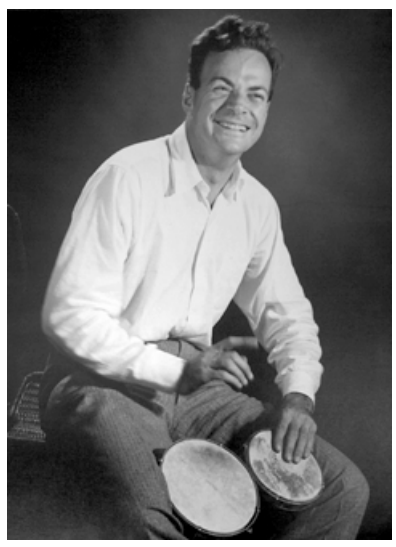
Singer-Songwriter Caitlyn Amanda Opens Show

Joe Hampton and the Kingpins, a local band that plays a mix of classic rock, blues, and original songs and has appeared in many Long Island venues, including the Riverhead Blues Festival, will appear in concert on Friday, May 13, at 8 p.m. in Berkner Hall. The show will be opened by 16-year-old Caitlyn Amanda, recently featured on radio stations WUSB 90.1 and WLIU 88.3 FM. Sponsored by the BNL Music Club, the concert is open to the public. All visitors to the lab age 16 and over must bring a photo ID. Tickets are $8 in advance at the BERA Sales Office, $10 at the door.

Celebrating Richard Feynman — BSA Sponsors Book Readings, Drumming, 5/11

In honor of the 2005 World Year of Physics, on the birthday of Nobel-Prize winning physicist Richard Feynman (1918-1988), BSA, the company that manages BNL, will sponsor readings by film and television actor Norman Parker from Feynman's bestselling books, and a drumming performance and reminiscences of what it was like to drum with Feynman by Ralph Leighton and Tom Rutishauser. The event, called "A Celebration of Richard Feynman," will be held on Wednesday, May 11, at 4 p.m. in Berkner Hall. The event is free and open to the public. All visitors to BNL age 16 and over must bring a photo ID.

Leighton and Rutishauser played bongos with Feynman, who was an adventurer, drummer, artist and writer, as well as an exceptionally talented physicist. Rutishauser taught actor Alan Alda to play bongos for his role as Feynman in the play QED, and Leighton coauthored with Feynman the bestseller *Surely You're Joking Mr. Feynman!* Parker will bring to life several entertaining stories from that book, and another popular Feynman book, in which Leighton was a contributor, titled *What Do You Care What Other People Think?*



Richard Feynman, Nobel Prize-winning physicist, also played bongo drums.

Feynman made major contributions to an area of physics known as quantum electrodynamics. For his work in that area, he shared the Nobel Prize in 1965 with Sin-Itiro Tomonaga and Julian Schwinger.

'Cricket, Anyone?'

"We will start playing cricket at the cricket ground south of the gazebo in the ball fields area in two weeks," says Piyush Joshi, a member of the BERA Cricket Club. "Cricket fans interested in playing or knowing more about this wonderful game, which is fast catching up in America, are most welcome to join us." Contact Joshi at Ext. 3847 or joshi@bnl.gov.

On-Site Service Station Tip of the Month

The new mandatory New York State motor vehicle inspection (OBD II) that was recently implemented is performed by computer. If you have a 1996 or newer vehicle and would like to know more about this procedure, then stop by the on-site service station and pick up descriptive literature or go to the Office of Transportation and Air Quality website at www.epa.gov/otaq/obd.htm. Vehicles of 1995 or older will continue to be inspected on the dynamometer.

African Drumming Open Circle, 4/28

On Thursday, April 28, from 5:30-6:15 p.m., come to hear or join in the African Drumming Open Circle at the gazebo, near the softball fields. The circle is sponsored by a new BERA club called Ago Amé. You are invited to bring your drum, shakaree, or rattle, etc. — some loaners will be available. For more information, contact Sarah Assamagan, 804-9474.

the Bulletin

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ROGER STOUTENBURGH, photographer

On the World Wide Web, the Bulletin is located at www.bnl.gov/bnlweb/pubaf/bulletin.html. A Weekly Calendar listing scientific and technical seminars and lectures is found at www.bnl.gov/bnlweb/pubaf/calendar.asp.

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