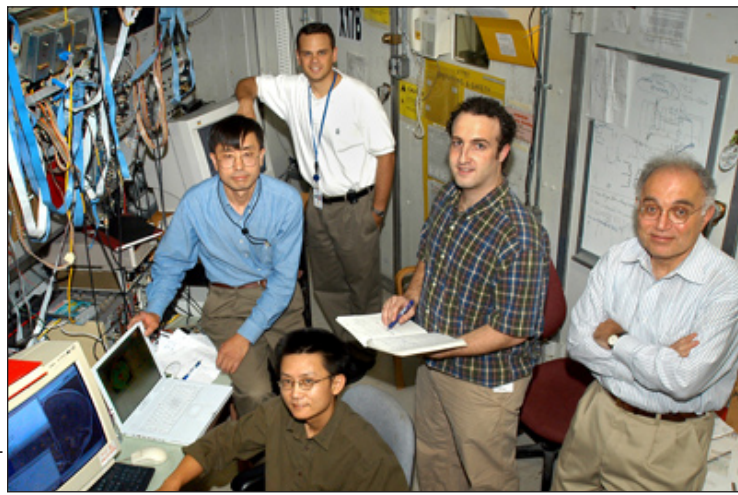


New X-Ray Delivery Method Could Improve Radiation Therapy

Researchers at BNL and colleagues at Stony Brook University, the IRCCS NEUROMED Medical Center in Italy, and Georgetown University say that improvements they have made to an experimental form of radiation therapy that has been under investigation for many years could make the technique more effective and eventually allow its use in hospitals. Results on the improved method, which was tested in rats, were published in the June 20 issue of the *Proceedings of the National Academy of Sciences (PNAS)*.

The technique, microbeam radiation therapy (MRT), has been using high-intensity synchrotron x-ray sources such as the X17B1 superconducting wiggler beamline at BNL's National Synchrotron Light Source (NSLS) and the ID17 wiggler beamline at the European Synchrotron Radiation Facility (ESRF), Grenoble, France, to produce parallel arrays of very thin (25 to 90 micrometers) planar x-ray beams



Joseph Rubino D580806

Avraham Dilmanian (right), lead researcher of a team whose results on a new x-ray delivery method were published in the 6/20 issue of the *Proceedings of the National Academy of Sciences*, is pictured with co-authors (clockwise from front) Zhong Zhong, Ruijiang Wang, David Ansel, and Jeremy Welwart. Not in the picture are co-authors Tigran Bacarian, Helene Benveniste, Pantaleo Romanelli, Tetsuya Yuasa, and Eliot Rosen.

(picture the parallel panels of window blinds in the open position) instead of the unsegmented (solid), broad beams used in conventional radiation treatment. The MRT research program at BNL was funded in the past by the Lab's Laboratory

Directed Research & Development program, the Children's Brian Tumor Foundation, the Office of Biological and Environmental Research within the DOE's Office of Science, and by the National Institutes of Health. Additionally, the NSLS

is supported by the Office of Basic Energy Sciences within DOE's Office of Science.

Previous studies conducted at the NSLS and ESRF demonstrated MRT's ability to control malignant tumors in animals with high radiation doses while subjecting adjacent normal tissue to little collateral damage. But the technique has limitations. For one thing, only certain synchrotrons can generate very thin beams at adequate intensity, and such facilities are available at only a few research centers around the world.

"The new development seeks a way out of this situation," explained Avraham Dilmanian of the Medical Department, the lead author of the new study, whose BNL team includes neurologist David Ansel, BNL Medical and SBU Neurology; Tigran Bacarian, former SBU graduate student, now at the University of California, Irvine; Helene Benveniste of Medical and SBU, an anesthesiologist

(continued on page 2)

Background on MRT

Microbeam radiation therapy (MRT) research was initiated by retiree Daniel Slatkin of the Medical Department; the late Per Spanne, also from BNL; Dilmanian; and others in the early 1990s at the Lab's NSLS. Since the mid 1990s, the method has been under ongoing investigation also at the European Synchrotron Radiation Facility.

It is not clear why high dose MRT is effective at killing tumor tissue while sparing healthy tissue. The researchers hypothesize that the normal tissue repairs itself, in part, as a result of the survival of the microvasculature's angiogenic cells between the microbeams. This effect seems to occur more successfully in the normal tissue than in tumors, although other factors also seem to be involved.

Neither the original nor the improved MRT technique has been tested in humans.

The *Proceedings of the National Academy of Sciences* paper is available online at: www.pnas.org/cgi/doi/10.1073/pnas.0603567103.

For more information on the methodology of this research, see www.bnl.gov/bnlweb/pubaf/pr/PR_display.

a strong network across the region. Given the rapid progress made in this recent effort, which was completed with the enthusiasm and excellent cooperation of all concerned, we are confident of further success in the future."

— Kay Cordtz & Liz Seubert

Helicopter Brings U.S. Coast Guard to Train DOE, BNL RAP Team

A helicopter landed on site on May 23 from the United States Coast Guard Air Station,

Cape Cod. It brought Coast Guard personnel to train BNL's Radiological Assistance Pro-

gram (RAP) team members in flight safety procedures as well as to test and load equipment.

DOE's RAP program is implemented on a regional basis. BNL is the Region One coordinating office, led for DOE by Richard Diem of the DOE Brookhaven Site Office as Regional Response Coordinator, and for BNL by Kathleen McIntyre, RAP Contractor Response Coordinator. Through the RAP program, DOE provides radiological assistance upon request to DOE programs and state, local and tribal governments. The assistance consists of resources — trained personnel and equipment — to evaluate, assess, advise, identify and search for, and assist in

mitigation of radiological risks.

The BNL RAP team is in the process of signing Memoranda of Understanding with the Coast Guard's First and Fifth Districts, which have air stations on Cape Cod and in Atlantic City. Under the agreements, the air stations will transport a DOE advance team to radiological incidents in Region One as needed.

Said Diem, "The DOE RAP program, which has been ongoing for many years, is even more vital now given the world situation. At Region One Coordinating Office we are hoping to set up Memoranda of Understanding with other important groups and institutions to build



Roger Stoutenburgh D6470506

Members of the DOE Brookhaven Site Office, BNL Radiological Assistance Program and U.S. Coast Guard

RHIC Physics Workshop in Context of Standard Model Marks First RIKEN-BNL Research Center Reunion

A workshop and symposium titled "RHIC physics in context of the standard model" was held at BNL from June 19 to 23 to commemorate the first reunion of current and former fellows and research associates of the RIKEN-BNL Research Center (RBRC).

Since its inception in 1997 under the directorship of T.D. Lee, presently Director Emeritus, and under its current Director Nick Samios, the Center has to date graduated 44 fellows and associates. Many of these graduates are now in tenured faculty positions at universities in the U.S., Europe and Japan. On the theory side, their research covers wide aspects of the standard model, including particle astrophysics, equilibrium and non-equilibrium properties of gauge theories at finite temperature and density, perturbative quantum chromodynamics (QCD), spin physics, effective field theories, lattice QCD and heavy ion physics. On the experimental side, RBRC graduates and current fellows participate in the RHIC spin and heavy ion experiments at BNL.

The workshop and symposium involved talks by RBRC alumni and additional distinguished experts who summarized the progress and challenges in theory and experiment in their respective research areas. The workshops were focused on topics in heavy ion physics, QCD spin physics and lattice QCD. The symposium summarized the progress and current challenges in these and broader aspects of the Standard Model — the theory of fundamental particles and how they interact.

As befitting a reunion, the workshop also provided an opportunity for the past RBRC alumni to interact with each other and with their colleagues at BNL. The Center would like to maintain these strong ties, and several scientific activities involving the expertise of RBRC alumni are planned for the future. The workshop and symposium were organized by Abhay Deshpande, Stony Brook University and current RBRC fellow; and Dima Kharzeev, Raju Venugopalan, and Werner Vogel-sang of BNL, all former RBRC fellows.



Roger Stoutenburgh D5580606

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: CIGNA Rep On Site

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

Mondays: BNL Social & Cultural Club

Noon-1 p.m., Brookhaven Center, South Room, free beginners dance lessons. Rudy Alforque, Ext. 4733, alforque@bnl.gov.

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. & Fri: Ving Tsun Kung Fu

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

Tue., Thu. & Fri: Upton Nursery School

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

Tuesdays: Welcome Coffee

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

Tuesdays: BNL Music Club

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

Tuesdays: Jiu Jitsu Club

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

Tuesdays: Toastmasters

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

Tues., Wed. & Thurs: Rec Hall Activities

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

Wednesdays: On-Site Play Group

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

Wednesdays: Market Day

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

Wednesdays: Weight Watchers

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

Wednesdays: Yoga

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

Thursdays: Reiki Healing Class

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

Fridays: Family Swim Night

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

Fridays: BNL Social & Cultural Club

Noon-1 p.m., Brookhaven Center, South Room, free beginners dance lessons. Rudy Alforque, Ext. 4733, alforque@bnl.gov.

In Memoriam, Julian David Baumert

Julian David Baumert, a Brookhaven physicist working on the cutting edge of research on liquid surfaces and thin organic films, died of melanoma on June 24, 2006. He was 31.

Described as dedicated, bright and caring, Baumert was a relatively new research associate in the Soft-Matter and X-ray groups in the Condensed Matter Physics and Materials Science Department.

"Julian was an exceptionally talented, hard-working young researcher, who loved his work," said colleague John Hill. "He understood his research at a deep level and it was always a pleasure to ask him what he was working on and hear his clear, precise, and enthusiastic explanations of his latest results and what they meant. It is such a tragedy to lose him so early in his life and in his career. We will all miss him immensely."

A native of Molfsee, Germany, Baumert was educated at the Institute of Experimental and Applied Physics (IEAP) at the University of Kiel and the Institute Laue-Langevin (ILL) in Grenoble, France, where he studied a compound known as methane hydrate, which is found naturally on the sea floor and is a major worldwide energy resource. His thesis focused on the structure and dynamics of this compound using neutron and x-ray scattering techniques and numerical simulations. Baumert obtained his Ph.D. from the University of Kiel in February 2004, receiving the prestigious "Familie-Schindler-Foerderungs-Preis" of the Faculty of Science in Kiel.

"He was a very cheerful person," said colleague Oleg Gang. "We deal with so many difficult and complicated things here, but he created this atmosphere around him where everything was positive."

Baumert came to BNL in July 2004 and conducted his research at beamline X22 of the National Synchrotron Light Source, where he was part of a team of scientists learning to make smaller and more powerful molecular-scale circuit components that could someday

make electronic devices more efficient. He was the principal investigator on a paper published in February 2006 in the *Proceedings of the National Academy of Sciences* that described the first measurements of the structure of a molecular junction at buried interfaces. He was working to elucidate how the structural and electrical properties of these molecular junctions depend on the molecular coverage.

"He had such great promise to be an extremely successful scientist," said Ben Ocko, who hired Baumert into his research group. "He was easy-going and friendly, and exhibited a high level of creativity, great skills as an experimentalist and the ability to explain complex phenomena in simple and elegant terms. He had such a bright future ahead of him."

In the past year, Baumert was diagnosed as having skin cancer and underwent extensive treatment. That didn't stop him from continuing his research at Brookhaven. "Even when his health deteriorated, he continued to come to the Lab daily to work on experiments and to discuss science with his colleagues," Ocko said. After an operation last summer, Baumert continued his scientific research including travel to the Advanced Photon Source last December to investigate how "surface freezing" modifies the capillary wave spectrum at the surface of long-chain alkane molecules using a technique called x-ray photon correlation spectroscopy.

"It was really amazing how he dealt with it," said Baumert's office mate and colleague Masa Fukuto. "He must have known the odds were against him, but he was courageous to the very last minute. He never lost hope."

A resident of Sound Beach, Julian Baumert is survived by his wife, Maren; his parents, Ingrid and Jürgen; and his sisters, Anna and Sophia. Donations in his memory may be made to the Melanoma Research Foundation, 24 Old Georgetown Rd., Princeton, NJ 08540.

— Kendra Snyder

New X-Ray Delivery Method Could Improve Radiation Therapy

(cont'd)

and brain-imaging scientist who heads BNL's 9.4 tesla MicroMRI Facility; neurosurgeon Pantaleo Romanelli, BNL and SBU guest scientist from NEUROMED, Pozzilli, Italy; Ruiliang Wang of Medical, a magnetic resonance (MR) imaging engineer at BNL's 4-tesla MRI Facility; Jeremy Welwart of Medical, SBU student intern; Tetsuya Yuasa, imaging specialist fellow to BNL from the University of Yamagata, Japan; and physicist Zhong Zhong, NSLS, spokesperson and scientist-in-charge of the X17 superconducting wiggler beamline whose B1 branch has been the host beamline for MRT.

"We first exposed the spinal cord and the brain of rats to high doses of radiation using microbeams up to 0.68 mm thick to demonstrate that a beam thickness within the capability of specialized x-ray tubes has little effect on healthy tissues. In the second step, we interlaced two sets of parallel arrays of such thicker microbeams at a 90-degree angle so that the beams of one array would fill the spaces of the opposite array. This geometry allowed us to produce the equivalent of a solid beam in the target only, increasing the killing potential there, while

retaining the technique's hallmark feature of sparing healthy tissue outside that target. The effectiveness of the method at different doses to produce targeted rat brain tissue damage without affecting the surrounding tissue was monitored by MR imaging," says Dilmanian.

Said collaborator Eliot Rosen, a radiation oncologist at Lombardi Comprehensive Cancer Center, Georgetown University, "This form of microbeam radiation therapy could improve the treatment of many forms of cancer now treated with radiation, because it can deliver a more lethal

dose to the tumor while minimizing damage to surrounding healthy tissue. It may also extend the use of radiation to cases where it is now used only judiciously, such as brain cancer in patients under three years of age, because of the high sensitivity of young brain tissue to radiation."

And, according to collaborators Anshel and Romanelli, the technique may also have applications in treating a wide range of benign and malignant brain tumors and other functional brain disorders such as epilepsy and Parkinson's disease.

— Karen McNulty Walsh

Delay in Posting June 30 TIAA-CREF Contributions

The June 30, 2006, contributions to the Brookhaven 401(a) Retirement Plan and the Brookhaven 401(k) Plan were not posted by TIAA-CREF on June 30 due to a TIAA-CREF systems issue. TIAA-CREF expects the remittance will be posted shortly. TIAA-CREF notified BNL of the delay and has advised the Laboratory that the contributions will be given an effective date of June 30, which is the day that TIAA-CREF received the funds.

Since the contributions were not posted in time for the quarter close, they will not appear on the June 30th Quarterly Review statement, but the corrected amounts will be reported on employees' statements for the period ending September 30, 2006. If you would like to review your total account value or verify contributions in the interim, you can log in to your account at www.tiaa-cref.org with your User ID and password.

TIAA-CREF apologizes for any inconvenience this may have caused and assures BNL employees that they will not lose any investment activities associated with these adjustments. If you have any questions, please call TIAA-CREF at 800-842-2776, Monday through Friday, from 8 a.m. to 10 p.m., and Saturday, from 9 a.m. to 6 p.m.

Estate Planning, 8/16

Join speaker Nancy Burner for the Elder Law Lecture "Estate Planning With Retirement Funds: What You Need to Know" on Wednesday, August 16, from noon to 1 p.m. in Berkner Hall, Room B.

Check your mailbox for registration forms. For more information, contact Michael Thorn, Ext. 8612 or mthorn@bnl.gov.

Join in the Talent Show!

Summer students, BNL staff will light up the stage, 7/18

Summer students and members of BNL staff will be performing in a Talent Show hosted by the Office of Educational Programs and produced by Tabatha Wyche. The show, to be held at 5:30 p.m. on Tuesday, July 18, will consist of a variety of acts such as violin, piano solo, gospel, step dance, belly dance, comedy, and Hip Hop. All kinds of talents are very much needed to help make the show a success: volunteers will be warmly welcomed either to participate as performers or behind-the-scenes aides. To join in the show, contact Wyche at twyche@bnl.gov or Ext. 4000.

Attention Parents of 3- and 4-Year Olds: On-Site Nursery School Enrollment Under Way

Enroll your child now in the Upton Nursery School, a not-for-profit, cooperative pre-school that meets at the Recreation Building in the apartment area and provides a warm, caring, and stimulating environment for 3- and 4-year-old children. The school offers certified and caring teachers, social and language development, academic readiness for kindergarten, and a multinational student body. Classes are forming now for September.

To register your child or for more information, contact Katalin Petreczky, 821-4131, julika@optonline.net, or visit the school's website at www.bnl.gov/nurseryschool.

Friday Fun at the Science Learning Center

The BNL community and their families are invited to the Science Learning Center (SLC), Bldg. 935, Railroad Ave. and E. Fifth St., on four Fridays, July 14 & 28 and August 11 & 25, from noon to 1:30 p.m. to explore the many interactive exhibits and to visit the 3D visualization theater. See what makes the SLC such a popular visit for more than 25,000 elementary school children each year. The SLC also offers a limited selection of science-related toys for sale. An adult must accompany children under 14 years old.

One-On-One TIAA-CREF Retirement Counseling

A TIAA-CREF consultant will visit BNL on Wednesday, July 19; Friday, July 28; and Monday, July 31; to answer employees' questions about financial matters. The consultant will help BNLers understand the importance of protecting assets against inflation, find the right allocation mix, learn about TIAA-CREF retirement income flexibility, and compare lifetime income vs. cash withdrawal options. For an appointment, call Arlene Lyons, (866) 842-2053, Ext. 4629. (Not the on-site Ext. 2053.)

CIGNA Representative On Site, Mondays

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

Recital

Pianofest at BNL, 7/19

Participants in Pianofest, a summer workshop in the Hamptons, will perform showcase recitals in Berkner Hall on Wednesday, July 19, at noon.

Pianofest emphasizes the development of style and interpretation in piano performance for students already possessing considerable technical capability. The workshop's founder and director, Paul Schenly, will choose prize-winning Pianofest participants to perform from the great classical repertoire for the BNL recitals.

The recitals will be patterned upon the openly critiqued performances given by Pianofest students in the Southampton Cultural Center, Mondays at 4 p.m., from July 3 through July 31. For more information, call 329-9115.

Sponsored by Brookhaven Science Associates, noon recitals are free and open to the public. All visitors to the Lab age 16 and over must bring a photo ID.



BERA Trips

For more information or to buy tickets, stop by the BERA Store in Berkner Hall, weekdays, 9 a.m.-3 p.m. or see www.bnl.gov/bera/. The coaches for these events depart from the Brookhaven Center.

Fri. 7/21 - Six Flags Great Adventure, \$30 per person. Bus leaves Brookhaven Center at 7 a.m., leaves for BNL at 7 p.m.

Fri. 8/6 - Sweet Charity show, Bellport Gateway Playhouse. BERA catered tent party at 6:30 p.m. on front lawn will include wine, beer, soda, water, cheese and vegetable/antipasto platters. Show starts at 8 p.m. \$53 per person.

Sun. 8/6 - Ellis Island & Statue of Liberty. \$20 per adult/child includes coach, ferry tickets, guided tour. Depart BNL at 9 a.m., depart NYC at 4:30 p.m.

Sat. 8/19 - Showboat Casino & Hotel Atlantic City. Depart BNL at 9:30 a.m., depart Atlantic City at 7 p.m. \$10 per person, must be 18 and over. Get \$15 cash and \$5 food voucher.

Defensive Driving Class Tomorrow, 7/15

A six-hour Defensive Driving (Point & Insurance Reduction) course will be held tomorrow, Saturday, July 15, in Room B, Berkner Hall, from 9 a.m. to 3:30 p.m. Organized by the ESH&Q Directorate, sponsored by USA Training Inc. and delivered by EAS Associates, the course is open to BNL, BSA, and DOE employees, facility-users, and their families. The cost is \$30 per person. To register, call Edward Sierra at 821-1013 and leave a voicemail with your telephone number. For further information, call Sarah Wiley, Ext. 4207.

Arrivals & Departures

— Arrivals —

John Amabile.....SSD
Angelo Dragone.....NLSL
Larisa Kuznetsova.....Biology
Matthew Menga.....C-A
Haiding Mo.....NLSL
Boaz Nash.....NLSL

— Departures —

Brian Boyer.....NNS
Felix Zantow.....Physics

Classified Advertisements

NOTEBOOK COMPUTER - Compaq X1000 Centrino 1.4GHz 512MB WiFi 15.4" Radeon Mobility 9200, CDRW-DVD, 6 mo war. \$499. 708-7253.

STEREO SYSTEM - Yamaha Nat. Sound compnts: amp, tuner, dual tape deck, rem. Sharp CD player. \$50/all, obo. 874-3652. TVs - RCA 36" F35317 (\$100); RCA 26" F25104WT (\$65). Both excel. 803-0506.

Sports, Hobbies & Pets

BICYCLES - Ross, 10 spd, 27", lg. frame, \$40; Mountain Bike, 26", 21 spd, \$50; both gd. cond. Walter, 567-9025.

BIKE RACK - 2 Place bike rack, fits into a 2 inch reciever hitch. used once, paid \$150, take \$75. 516-805-3178.

HOCKEY SKATES - Nike Inline Hockey Skates, like new, Men's size 8, \$80; incl. carrying bkpk, knee & elbow pads. 878-4512.

MONGOOSE BIKES - "Menace" boys 20". "Lady Goose" girls 20". Very good condition. \$25 each. Ext. 5191 or 208-2910.

PUREBRED CHOCOLATE LAB PUPPIES - 4 males b. 5/18/06, papers/shots, parents ACA/AKC reg., \$500. 772-2299.

SIAMESE CAT - Chocolate pt. Siamese, 6-yr old male, loves attention, not good with other pets, indoor cat, de-clawed. 744-8792.

Tools, House & Garden

AIR CONDITIONER - Gold Star, 8,000 Btu, window, \$50. 924-6751.

GENERATOR - 4,000 watts, never used, maintained, runs well, \$200. 678-8725.

LAWN TRACTOR - 11.5 HP Briggs & Stratton, 36"-grass cutter, best offer, will deliver locally. Ext. 8236 or 929-5945.

Miscellaneous

CHILD CARE PROVIDER - Child-care openings now available, weekends included. Tracy, 696-3003.

GENERATOR - 600 watts, super quiet, good for RV use. Make offer. Jim, Ext. 8236 or 631-6116.

MAPLE SYRUP - from my family's farm in VT. Peter, Ext. 7687 or 744-1112.

TICKET - String Cheese Incident/Bob Weir and Ratdog, Radio City, Fri., 7/14, 7 p.m., 1MZ, Row B, Seat 402, \$47.50. Ext. 7661.

WEDDING GOWN - beaded satin, Victorian style w/headpiece, white, size 4/6, b/o. 395-9610.

WEDDING GOWN - Size 10, "White One" brand, not worn to a wedding (a backup), \$250. Ext. 3621.

Yard & Garage Sales

BELLPORT - Sat., 7/15, 9 a.m.-3 p.m., 35 North Howell's Pt. Rd., furn., children's items, bicycles, more. 286-1097.

SELDEN - Sat., 7/22, 9 a.m.-3 p.m., 151 Adirondack Dr. contents of house, furniture, housewares, etc. 736-5613.

Farewell Gathering

BETH BLEVINS - Retirement party August 3, 5:30 pm, at the East Wind. \$45 pp, cash bar. Francine, Ext. 3381.

Free

KITTENS FOR ADOPTION - Friendly, cute, available immediately, 1 orange, 1 black, 2 silver/black tabby. Peter, Ext. 2913.

Wanted

CAR BACK SEAT - I need a back seat for my child. He is around 3. Ali, Ext. 4472.

CAR RADIO - Used radio compat. with 97 Nissan Pathfinder, reasonable. Ext. 7505.

DOUBLE BABY STROLLER - For needy mother. Call Barbara. 589-0277.

Get to Know Your Lab!

Lunchtime Tour of PHENIX, 7/21

The next employee lunchtime tour will be on Friday, July 21, and will visit PHENIX, the largest detector at the Lab's Relativistic Heavy Ion Collider. The group will meet at the upper lobby of Berkner Hall at noon, and return by 1 p.m. Contact Elaine Lowenstein, Ext. 2400, for more information.



Roger Stoulenburgh CNS-211-01

BERA Golf Association's North Team Wins First Annual Brookhaven Cup

Under clear blue skies, 19 BERA Golf Association (BGA) members took part in the 1st Annual Brookhaven Cup competition at the Pine Hills Golf Course on June 26. Led by Captain Mary-Jane Bartholomew, center, members of the North Team share a toast after they took home the cup and bragging rights with a team score of 384, defeating the South squad's 402 team score. After their golf, members of both teams shared stories of long drives, made putts, and miraculous sand saves over dinner and drinks. The cup will be on display in Brookhaven Center. Bob Lofaro (second from right) won the low net prize with a par 73, while Paul Callegari (fourth from right) won the closest to the pin award on the par 3 third hole. The competition, which is open to all members, will be held again in June of 2007. For more information about the BERA Golf Association visit their website at <http://www.bnl.gov/bera/activities/golf/>.



From left, members of the BNL North Team are: Hank Arnesen, Tony Baltz, Ralph Brown, Mary-Jane Bartholomew, Randy Church, Paul Callegari, Nick Franco, Bob Lofaro, and John Dabrowski. Doug Paquette was absent from the picture.

CIGNA, SBU Hospital Face Contract Issue

CIGNA has notified BNL that despite having been in contract negotiations with Stony Brook University Hospital (SBUH) for nearly a year, the two organizations have not yet reached an agreement on a contract extension. The SBUH network consists of the hospital and 357 physicians with admitting privileges. If an agreement is not reached by July 31, 2006, these physicians' participation in the CIGNA HealthCare network will end on that date.

CIGNA is sending a letter to each physician with exclusive admitting privileges to SBUH informing her or him of the status of the negotiations. The letter also serves as a notice of termination unless the physicians obtain admitting privileges at a participating CIGNA facility. Physicians with admitting privileges at Stony Brook and other facilities will also receive a letter informing them of the status of the negotiations.

If CIGNA and SBUH cannot reach an agreement, then the hospital and the physicians will no longer be covered as in-network providers, but will, instead, be treated as being out-of-network. CIGNA is optimistic of success in negotiating a new contract with SBUH and will keep employees informed of progress.

The Human Resources & Occupational Medicine Division will provide additional information as it becomes available.

(continued from page 4)

GATE-FOR ACROSS DRIVEWAY - Any kind of gate, 10'x12', reasonable price. Mary Lynn, Ext. 7796 or 516-445-9386.

REFERRALS TO CONTRACTORS - Looking for quality contractors for tile/mud, plumbing, sheetrock, spackle, paint, reasonable rates. Ext. 2295 or 764-0360.

Lost & Found

LOST: LIGHTER - silver colored Zippo lighter, sentimental value. Joseph, Ext. 4547 or 821-0359.

For Rent

PATCHOGUE - 1 Bedroom, 1/2 bath, full bath, off-street parking. All included, \$900. \$900/mo. 447-7570.

S. SETAUKET - 2 bdrm apt, bath, kitchen, A/C, w/d, Internet, cable, 9 mi. <http://tinyurl.com/p7stx>. \$900/mo. Lin, Ext. 4508.

SAYVILLE - lg studio apt, 1st floor, new bath, fp in 1/2, heat incl, no smo/pets \$1,050/mo. 631-256-6353.

SHIRLEY - ranch, lg. 2 bdrm, 1/2, d/r, eik, bath, full bsmt., 150 x 100, no smkg./pets, + sec. \$1,300/mo. Maria, 399-1756.

SHIRLEY - studio rm. apt, suit. for one, full bath, sep. ent. all incl., cable, wireless internet, no smkg./pets, 5 min to stores/beach, 1 mo. sec. \$550/mo. Ext. 8321.

SHOREHAM - ranch, 3 bdrm., 1 bath, 1/2, den, kit., w/d, 1-car gar., lg. yard, utilities extra. \$1,800/mo. 258-4607.

SHOREHAM - Large, newly renovated studio. Off-street parking. New appliances, full kitchen and bath. Walk to beach! Incl. all. \$850/mo. Kevin, 291-2128.

YAPHANK - Colonial Woods, share 2 bdrm. condo, rec. renov., .5 mi. to BNL, prefer female. \$650/mo. Marie, 516-810-0196.

YAPHANK - Co. Woods, 2/3 bdrm. condo, 1/2 mile to Lab, move-in cond., all new kit. & 1 + 1/2baths, \$1,600/mo. plus utils. 1/mo. sec., refs. 205-5447.

SURFSIDE BEACH, SC - 2 bdrm., 2 bath, gated comm., indr/outdr. pool, nr. beach w/priv. prkg., more, + sec., summer \$800/wk., winter \$550/wk. or \$800/mo. www.vrbo.com/89816, 475-8211.

For Sale

CENTER MORICHES - waterfront, 50' blkhd, 3 bdrm, 2 bath, just renov, oak flrs, new kit., 2-car det. gar., rec. rm, dead-end str., \$599,000 Ext. 5288 or 775-0724.

MIDDLE ISLAND - 2 bdrm., 2 bath, 1/2, d/r, lg. eik, new upgrade appli., partly fin. bsmt., igs., .5 acre, shed, 5 min. to BNL. \$299,000 Karen, 924-4968.

ROCKY POINT - quiet, close to stores & beach, 3 bdrm, 2 bath, taxes less than \$1,500. \$225,000. Samantha Alvarado, Ext. 3372, 632-8241.

SHOREHAM - Dutch Colonial, 4 bdrm, 2 bath, d/r, 1/2, lg. fam rm, wood flrs, new lg. kit., new appl., 1-car gar, igp, fenced yrd., family nghborhd. \$499,000/neg. 258-4607.

SHOREHAM - 1998 Victorian on shy acre, backing golf course in North Hills (10 min to Lab), 3000 sq.ft., 4 bdrm, cac, wood fls., fin. bsmt., f/p. \$615,000/neg. 821-2260.

BOYNTON BEACH, FL - 55+ community, 1,800 sq. ft., 2/2 + den nr clubhouse, pool, tennis, shopping. \$239,900 561-495-0187.

On-Site Service Station

BOAT & MOTORCYCLE STARTERS, ALTERNATORS - The on-site service station can supply needs for boats and m/cycles as well as perform all vehicle services, NYS inspections, etc. Ext. 4034.

CALENDAR

— THIS WEEKEND —

Friday, 7/14

*Science Learning Center Open
Noon-1:30 p.m. Visit BNL's Science Learning Center, Bldg. 935, Railroad Ave. & E. Fifth St. See notice, page 3.

Saturday, 7/15

Bus Trip to New York City
Bus leaves from the Recreation Bldg. at 9 a.m., and leaves the city at 6 p.m. Tickets cost \$10 for adults and \$5 for children ages 2-12. Contact Hanna Herman, 849-2249 or haniaherman@yahoo.com, or Jing Rochman, 891-9430 or deshanghai@yahoo. fr.

*Defensive Driving Course
9 a.m.-3:30 p.m., Berkner Hall, Room B. Some places remain to attend an on-site Defensive Driving Course, cost: \$30 per person. To register, call Edward Sierra at 821-1013 and leave a voice mail with your telephone number. See notice, left.

— WEEK OF 7/17 —

Tuesday, 7/18

*Talent Show
5:30 p.m. Berkner Hall. Performed by students and Office of Educational Programs staff. Volunteers needed. See notice, page 3. Tabatha Wyche, twyche@bnl.gov or Ext. 4000.

Wednesday, 7/19

*BSA Noon Recital — Pianofest
Noon. Berkner Hall. Free recital by prize-winning pianists. See notice, left.

Friday, 7/21

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

*BERA Trip to Great Adventure
7 a.m. Leave Brookhaven Center on luxury coach. \$30 per person. See notice at left.

— WEEK OF 7/24 —

Monday, 7/24

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

Tuesday, 7/25

Agilent Roadshow Demo
11 a.m.-1:30 p.m., Berkner Hall Parking Lot. Test drive leading-edge equipment on Agilent's customized 18-wheeler. Experience hands-on demonstrations with Agilent experts on a variety of applications, RF/MW/digital design, and much more. Karen, 454-4645.

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.



Remember to donate!
BNL Food Drive

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

TB2698. SR. ADMINISTRATIVE SECRETARY (A-3) – Requires formal secretarial training, or equivalent, plus at least 6 years' related secretarial experience that includes at least two years experience at BNL in a similar role. Must be highly competent in secretarial skills and MS office products, including Word, Excel, PowerPoint, and Outlook. Full knowledge of the PeopleSoft travel system and BNL Web Requisition System is also required. Must also be able to work independently and under pressure, handle non-routine office matters and perform multiple tasks. Knowledge of Laboratory practices, policies and procedures is desired. Responsibilities include both routine and non-routine administrative assignments which include, but are not limited to: preparing reports and correspondence; coordinating and scheduling appointments and meetings, including recording and distributing minutes; travel; maintaining supplies, procurement requisitions, repairs/maintenance. Will work primarily with the Environmental Compliance Section. Environmental & Waste Management Division.

TB3980. SR. ADMINISTRATIVE SERVICES ASSISTANT (A-3, Reposting) - Requires a bachelor's degree or equivalent experience, and at least three years of relevant work experience, a demonstrated proficiency in MS Word, Excel, Access and Outlook as well as other computer applications. Must have strong communication and organizational and problem-solving skills, the ability to work independently, handle multiple projects, and prioritize workload. The ideal candidate will have writing and editing skills. Responsibilities include assisting in the administration of licenses, including monitoring insurance, due diligence requirements, and royalty payments. Will also be responsible for interacting with outside companies to assure compliance, forwarding to fiscal all licensing revenue, and coordinating with fiscal proper disposition of such revenue. Duties will include the preparation of licensing documents, non-disclosure agreements and material transfer agreements; administration of those agreements, maintenance of license and agreements databases and general support of Office of Intellectual Property, Office of Intellectual Property & Sponsored Research.

TB3790. MATERIAL HANDLER (LG-3, Temporary Position) - Performs a variety of laboring and manual tasks in stores operations such as moving, loading, unloading, sorting and storing of materials. May operate motorized equipment pertinent to stores operations. Keeps stores facilities in neat condition. Procurement & Property Management Division.

TB3724. CUSTODIAN (LG-1, 2 Positions) Under general supervision, performs general cleaning and housekeeping duties in all Laboratory buildings. Plant Engineering Division.

OPEN RECRUITMENT – Opportunities for Laboratory employees and outside candidates

MK3248. SCIENTIFIC STAFF POSITION – Requires a Ph.D. in accelerator physics, strong experimental skills, and familiarity with accelerator design software tools. Research will involve the development of the NSLS storage ring complex (booster, VUV and X-Ray rings). It is expected that the selected candidate will conduct an active research program in accelerator physics. Under the direction of B. Podobedov, National Synchrotron Light Source Department.

MK4249. POSTDOCTORAL RESEARCH ASSOCIATE – Requires a Ph.D. in experimental physics, materials science, or related field. Experience is required in the following areas: superconductivity and/or solar energy, thin-film fabrication, electrical transport measurements, and familiarity with structural determination by x-rays, electron microscopy, or scanning probes.

Experimental work to be carried out both at Brookhaven National Laboratory and at the IBM Watson Research Center at Yorktown Heights. Under the direction of Praveen Chaudhari, Director's Office.

MK2075. POSTDOCTORAL RESEARCH ASSOCIATE - Requires a Ph.D. in physics or astronomy. Experience in optical and electrical characterization of scientific imaging devices is strongly preferred. Familiarity with semiconductor device physics, image processing codes, and optical instrumentation is desirable, as is a strong background in contemporary cosmology. Research involves detailed study of large-format silicon CCDs and hybrid pixel arrays being considered for next-generation dark energy surveys. Using in-depth knowledge of the relevant science requirements, candidate will develop measurement techniques for evaluating quantum efficiency, point spread function, and noise properties of cooled sensors. Under the direction of V. Radeka and P. O'Connor, Instrumentation Division.

JH3945. PROJECT ENGINEER I (P-9) - Requires a BS or MS degree in a science discipline and a minimum of 10 years' relevant experience. Comprehensive knowledge, skills, and experience within the discipline of ES&H are required, as well as knowledge of BNL and DOE safety standards. Excellent communication (oral and written) and interpersonal skills are required to work with a diverse internal and external workforce and to achieve compliance within all aspects of ES&H. Experience within an accelerator-related hazards and associated controls environment is important. The NSLS-II ESH Coordinator will support the development of safety assessment documentation required during the development of accelerator and facility design. Will also support the development and implementation of the ESH program for research and development activities of the project, including safety reviews and inspections, incident investigation, self-assessment, and coordination of audits and assessments. Reports to the ESH Manager of NSLS-II Project.

NS4235. SR. STAFF SPECIALIST (A-8) – Requires 10 years' related experience, and a bachelor's degree or equivalent work experience in business administration, physical security, military/law enforcement, classified matter protection and control, communications security, and information security and an understanding of DOE policies and procedures. Must possess excellent oral and written communication skills and have knowledge of MS Word and PowerPoint. Extensive experience in information security or as a facility security officer in a DOE/DOD or law enforcement environment is preferred. Ability to prepare professional presentations is highly desirable. Will be responsible for administration and oversight of the Foreign Visits and Assignment program; serve as the Communication Control Officer; Derivative Classifier/Declassifier; Tempest Coordinator and Information Systems Security Officer. Requires US citizenship and the ability to obtain/maintain a DOE "Q" security clearance. Safeguards & Security Division.

NS4236. TRAINING SUPERVISOR/POLICE CAPTAIN (T-6) – Requires a bachelor's degree or equivalent military/police experience and an extensive teaching and/or training background. Must possess excellent oral and written communication skills. Proficiency in firearms, small unit tactics, and police or security procedures is desired. Will develop, plan, organize, manager, direct, document and evaluate training programs for Division personnel ensuring compliance with training and safety requirements of BNL and DOE. Will maintain qualification as a Police Group Watch Commander and act in that capacity when required. Requires US citizenship and the ability to acquire a DOE "Q" security clearance. Must meet the "defensive combative" physical fitness requirements of 10 CFR 1046. Safeguards & Security Division.

TB2697. STAFF SPECIALIST (A-6, Term Appointment) - Requires a bachelor's degree in a relevant field or equivalent experience, or an equivalent combination of education and experience and a minimum of four years' related work experience in document development or equivalent. Excellent verbal and written communication skills, including technical writing experience are required, as is proficiency with Microsoft Office (Word, Excel, and PowerPoint); knowledge of the Standards-Based Management System including SBMS document development and requirements management processes, and the SBMS Website operation is preferred. Experience with Dreamweaver is a plus. Ability to work with subject matter experts in the development and revision of Lab-wide procedures is necessary. Under minimum supervision, support the SBMS Supervisor in the completion of several projects over the course of the coming year. Project-related responsibilities include coordinating, facilitating, and expediting the steps in the document development process by working directly with SMEs and line management in document development, review and revision. Will draft and edit documents, test and launch electronic tools, and apply these tools for the requirements verification and contract requirements mapping initiatives. Quality Management Office/SBMS Project Support.

NS3533. CUSTOMER SUPPORT ADMINISTRATOR (I-3) – Requires training or experience in computing hardware and soft-

ware, good communication skills and 1-2 years of experience working in computing support. Familiarity with basic computing documentation tools and techniques including both text and web page editors is necessary. Responsibilities include participating in first-level support for the RHIC/ATLAS computing facility. This position involves weekend and off-hours shift work. Physics Department.

TB3719. OFFICE SERVICES ASSISTANT (CW-2, reposting) – Requires good organizational skills and self motivation with a minimum of two years' relevant work experience. Under minimum supervision, provides clerical and office work support for the Engineering and Construction Services design office. Responsibilities include microfilming original engineering drawings; maintenance of project files, database entry, archiving completed projects, copying, collating, and assembling reports and presentations. Also responsible for clean up and maintenance of the drawing reproduction area, inventory and restocking of supplies, filling copy machines and plotters with paper and ink, sending out original drawings for blueprints, processing shop drawings, packing and mailing documents. Plant Engineering Division.

Motor Vehicles & Supplies

06 BOMBARDIER OUTLANDER 800 4X4 - camo atv aftermarket itp rims & tires & uni air filter. 30 mi. \$7,250/neg. 648-3942.

04 TOYOTA SIENNA - V6, 3.3L, a/t, LE pkg. plus power sliding door, rear air, 7-seats, excel. 41K mi. \$17,500/neg. 821-2260.

01 BMW M5 - 6spd. Manual, loaded, Power-All, 4-Door, blue, leather int., 6 Disc CD, Navigatio 40K mi. \$48,000/neg. 767-1835.

01 PONTIAC GRAND PRIX GTP - silver, new tires, all pwr., m/roof, leather, gar. 56 mi. \$11,900/neg. Ext. 5087 or 987-3145.

00 FORD EXPLORER XLS - red, V6, a/t, p/s, c/c, p/w, cd, 2-wd, new tires, runng brds., privacy glass, 55K mi. \$7,500. 591-4011.

00 SUZUKI ESTEEM WAGON - a/t, a/c, well maint. 87K mi. \$3,200/neg. Samantha Alvarado, 632-8241.

98 CHRYSLER CIRRUS LXI SEDAN 4D - Excel., 6cyl., a/t, all-power, alloy wheels, rec. tune-up. 65K mi. \$5,000/neg. 581-8119.

98 BMW 740iL - excellent condition, fully loaded. 91K mi. \$11,500/neg. 286-2178.

98 CHEVY ASTRO CONVERSION VAN - V6 Vortec eng., cust. van, hi top, dual AC, TV, VCR, PS2, 115K mi. \$5,500. 882-0519.

94 HONDA ACCORD LX SEDAN - 4dr., a/t, a/c, p/l, p/w, am/fm cass., new tmg belt & rad., 116K mi. \$2,300/neg. Masa, Ext. 5256.

94 TOYOTA CAMRY XLE - 6cyl, 4dr, a/c, AM/FM, abs, a/t, p/b, p/l, p/s, p/w, new tire, batt, plugs 112K mi. \$4,000. 821-5624.

94 PLYMOUTH GRAND VOYAGER - 3.3L V6 eng, abs, p/s, p/b, c/c, am/fm/cass., 4 new Michelins. 164K mi. \$1,400/neg. Ext. 5669.

88 BMW 735 - gray, 2nd owner, median mileage, 4dr., great shape, ask \$2,500. Bob Brown, Ext. 4863 or 369-4642.

87 DODGE ARIES - 4 dr., 4cyl., a/t, a/c, just inspected, 2 new tires, rec. brakes, int. gd., no rust. 95K mi. \$550. 929-5876.

ALLOY WHEELS - set of 4, 16" alloy wheels, pics avail. \$100. Yangsoo, Ext. 4375 or yangsoo@bnl.gov.

Boats & Marine Supplies

19' STEURY S1900 - 1977 Cuddy Cabin, Porta potty, built-in gas tank, trailer, no eng., best offer, must sell. \$500/neg. Ext. 5288.

19' ANGLER - center/console, wide beam, 115hp mercury, trailer, all 1987, bimini top. \$3,700. Kevin, 882-0519.

19' CRUISER FIBERGLASS RUNABOUT - w/115 hp, Johnson outboard w/full canvas and trailer, \$1,200/obo. 878-0743.

GALVANIZED TRAILER - Will fit up to 12' boat. New winch & strap. VG cond. \$225. 698-5332.

OUTBOARD ENGINE - Evinrude, 7.5, 10 yrs. in storage, \$400. 924-6751.

Furnishings & Appliances

30" ELECTRIC COIL STOVE - Maytag Magic Chef. Black/Chrome Front, Almond Top, Self-Clean. \$150, Will Demo. 698-5332.

AIR CONDITIONERS - LG 8,000 Btu unit, 2 yrs. old, digital thermostat w/timer, \$75; 5,500 Btu unit, \$25. Ext. 7131 or 727-4228.

BUNK BEDS - Stanley wood furn, oak color, 2 draws, excel. cond., can convert into 2 twins, pics avail. \$400. 873-8959.

CAPTAIN'S BED, MATTRESS - Unpainted pine bed w/3 lge drws, \$100. Twin mattress, less than yr. old, \$50 obo. 874-3652.

DISHWASHER - Maytag Magic Chef. Blk/Chme. \$125, vg cond. Will demo. 698-5332.

FREEZER - Sears, upright, 6 dr. shelves, 3 wire shelves, temp. control, frost free, 18"x27"x50", \$1001. Herb, 928-0297.

LOVESEAT/TIFFANY-STYLE LAMP - Exc. cond, \$50; ladderback chairs, \$35/pair; lamp, 36" tall, \$150 (\$300+ value). 803-0506.

TABLE - executive, solid, mahogany; carpet, 8'9" like new, \$125/ea. 874-4845.

Audio, Video & Computers

DIGITAL CAMERA - 8 MPIX W/Mcard Megxon C401 w/CCD 1.6 ft lcd zm 4X, 14 scn modes, 256MB mem cd, \$60. 751-5245.

(Classified ads are continued on page 3)

Summer Sundays, Now Through 8/20

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



Life Sciences This Sunday, July 16

Investigate the Living World

Explore the fascinating world of biological and biomedical research. See how scientists can use imaging devices to view the human brain. Learn about DNA sequencing and the Scanning Transmission Electron Microscope, a super-powerful microscope that allows scientists to see the intricate details of living organisms. See how a molecule's structure is determined with x-ray crystallography, and enjoy hands-on activities.

Country-Rock Concert New Riders of The Purple Sage, 7/20

The legendary psychedelic country-rock band New Riders of the Purple Sage will play their first Long Island concert in more than two decades at BNL on Thursday, July 20. The concert, sponsored by the BNL Music Club, will take place at 8 p.m. in Berkner Hall and is open to the general public. All visitors to the Lab age 16 and over must bring a photo ID.

The New Riders of the Purple Sage lineup features original members David Nelson on guitar and Buddy Cage on pedal steel, with Michael Falzarano (Hot Tuna) on guitar, mandolin, and vocals; Johnny Markowski (Stir Fried/Jerry Garcia Band) on drums and vocals; and Ronnie Penque (Stir Fried/Jerry Garcia Band/Ripple) on bass and vocals. Original guitarist John "Marmaduke" Dawson is sitting out the current tour for health reasons.

The band emerged from "the happening" San Francisco music scene in the summer of 1969, when Dawson began playing coffeehouses and small clubs with Grateful Dead guitarist Jerry Garcia. The two were the nucleus of what would become the New Riders of the Purple Sage, and were joined later that same year by Nelson, who was proficient in both country and rock electric guitar.

With bassist Dave Torbert and former Jefferson Airplane drummer Spencer Dryden on board, the group's country-rock twang soon became a favorite of the San Francisco scene, as they played classic songs like "Panama Red," "Glendale Train," and "Henry." They toured extensively as an opening act for the Grateful Dead, with Garcia eventually dropping out and being replaced by pedal-steel wizard Cage. The New Riders went on to record 12 albums over the next 11 years on Columbia Records, MCA, and A&M. From the late 1970s through the 1990s, they toured with a variety of lineups, led by Dawson.

Tickets for the concert cost \$25 each and can be purchased from the BERA Store in Berkner Hall, weekdays, 9 a.m.-3 p.m., or www.ticketweb.com. Call Ext. 3846 for more information.



OnTheWeb, the Bulletin is located at www.bnl.gov/bnlweb/pubaf/bulletin.html. A calendar listing scientific and technical seminars and lectures is found at www.bnl.gov/bnlweb/pubaf/calendar.html.

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