

Six BNL Scientists Awarded Tenure

Brookhaven Science Associates (BSA) granted tenure effective May 1 to six BNL scientists: Wolfram Fischer, Collider-Accelerator Department; Frithjof Karsch, Physics Department; Lisa Miller, National Synchrotron Light Source Department; Peter Steinberg, Chemistry Department; Daniel van der Lelie, Biology Department; and Vitaly Yakimenko, Physics. This week's edition concludes the tenure articles with Vitaly Yakimenko.

Vitaly Yakimenko

In being granted tenure, Vitaly Yakimenko of the Physics Department was cited for his leadership in the productive use of the BNL Accelerator Test Facility (ATF) and significant scientific contributions to accelerator physics. In particular, he is recognized for original contributions to research efforts aimed at constructing future accelerators with very high brightness and to research in "Wakefield" acceleration, relevant to the design of future linear colliders.

Having earned his Ph.D. at Novosibirsk State University, Yakimenko joined BNL's National Synchrotron Light Source Department as a research associate in 1996. In 2002, he moved to Physics as a physicist and Deputy Director of the ATF, being named ATF Director in 2004.

Said Physics Chair Sally Dawson, "Vitaly has an outstanding track record of leadership and scientific accomplishment. He is a widely acknowledged leader in the field of accelerator physics. He has made significant contributions in the areas of electron beam diagnostics, free electron lasers, advanced accelerators, and plasma-based accelerators. He has also proven to be a dynamic leader for the ATF, which is a key BNL facility. Vitaly's publication record includes seven papers in *Physical Review Letters* and one in *Science*, and, in addition to his other publications, was recognized by distinguished reviewers in the field as 'extremely impressive' and 'a testimony to his [Dr. Yakimenko's] scientific breadth and depth.' Vitaly is a most welcome member of the tenured Physics staff."

Among Yakimenko's contributions



Roger Stoutenburg D1569005

has been his work on asymmetric gun tuning and achieving a new record in beam brightness, both of which give a significant advantage to the experiments at the ATF. He has introduced many other improvements, such as feedback systems for improved stability.

Yakimenko is recognized as a valuable resource for ATF users in running experiments and designing new equipment. For example, in a Japan-USA collaboration that made the first observation of a measurement known as nonlinear Compton scattering for relativistic beams, Yakimenko played a critical role in operating the electron accelerator. In addition, in a very short time, he provided a solution to another long-term problem, so that the collaboration could make another first-time measurement, the angular distribution of the nonlinear Compton scattering. — Liz Seubert

PASER: Novel Acceleration Scheme Demonstrated at Brookhaven's ATF

A group of scientists from the Technion-Israel Institute of Technology used BNL's Accelerator Test Facility (ATF) to demonstrate, for the first time, the feasibility of particle acceleration by stimulated emission of radiation (PASER), a kind of particle analog of the laser process.

The technology may provide a brand new tool for the emerging field of nanoscience because the "cool" electrons produced will enable more precise x-ray probes of ultra-small structures. Both the essence of the concept and the proof-of-principle experiment performed at the ATF were described in a paper published the September 29 issue of *Physical Review Letters (PRL)*.

"This is the first experimental evidence that energy can be transferred from excited atoms/molecules to free electrons in a coherent way," said Samer Banna, a co-author on the paper with Levi Schächter and Valery Berezovsky. "In other words, this is the first demonstration of coherent collisions of the second kind."

A collision of the second kind takes place when a moving electron collides with an excited atom/molecule and energy is transferred from the latter to the former. In coherent collisions, the energy transfer due to multiple collisions may significantly increase the kinetic energy of the moving electrons.

The researchers have shown that energy stored in a carbon dioxide (CO₂) mixture is transferred directly to an electron beam, which was initially bunched by the powerful ATF CO₂ laser in order to ensure significant energy transfer. Each accelerated electron has undergone roughly two million

collisions with excited CO₂ molecules, generating no heat in the process.

Banna explained the PASER and LASER analogy. "In the latter case, photons traveling through an active medium stimulate the excited atoms, which release their energy in the form of additional photons," he said. "In the PASER experiment, the active medium surrenders its energy directly to the electrons." From a wider perspective, he added, conceptually, any mechanism that allows a free electron to generate radiation, and hence be decelerated, may be employed in its inverse course to accelerate electrons. In this regard, the results reported in *PRL* are the first demonstration of the inverse-laser effect.

Although the effect observed in this proof-of-principle experiment is modest, Banna emphasized that future PASER experiments will aim to increase the gain in acceleration significantly.

Unique Infrastructure of ATF

"The unique infrastructure built at the ATF during almost 20 years of activity played an important role in the success of this experiment," added Banna, "and with this opportunity, on behalf of the PASER group, I would like to acknowledge the support of a number of individuals. They include: Ilan Ben-Zvi, former director of the ATF, who encouraged Levi Schächter to perform the experiment at the Brookhaven facility; the chairmen and members of the ATF Peer Review Committee who approved and backed this experiment; the ATF staff currently led by Vitaly Yakimenko for their assistance and cooperation, and Wayne Kimura for sharing with us his data analysis experience." — Kay Cordtz

Determining Carbon Dioxide Flux Footprints in a Florida Pine Forest

In June, members of the Environmental Research & Technology Division of the Environmental Sciences Department conducted two days of experiments in a slash pine forest near Gainesville, Florida, hoping to determine the carbon dioxide (CO₂) "footprint" surrounding a flux sampling tower. The experiments were part of the AmeriFlux/FluxNet research programs, which aim to measure the net ecosystem exchange of CO₂. Results of the BNL experiment will be used to validate and improve computer models that allow scientists to predict levels of atmospheric CO₂.

The Brookhaven experiment used perfluorocarbon tracers (PFT) to track turbulent air flow within the footprint of a 30-meter-high tower equipped with anemometers and PFT samplers. The experiment will be used to define the area in the surrounding ecosystem that affects the CO₂ measurements at the tower. Data from the tests are being analyzed, and preliminary results suggest that the tower measurements are impacted by a larger area than previously assumed.

Said Tom Watson, "Preliminary findings indicate that the tracer concentrations from the more distant release locations were higher than we anticipated. The tree canopy changes the micrometeorology in ways we didn't expect."

The DOE Terrestrial Carbon Program has funded the Tracer Technology Group to conduct additional field programs at AmeriFlux sites in 2007 and 2008.

— Kay Cordtz



Roger Stoutenburg D0041006

Environmental Sciences Department members working on measuring CO₂ Flux include: (from left) Tom Watson, Keith Lewin, Ray Edwards, Rick Wilke, Victor Cassella, and Scott Smith. Not present: John Nagy.

(1) It took the five staff members three days to place the 150 perfluorocarbon tracers (PT) sources in the heavily wooded area and install sonic anemometers on the tower. (2) Sonic anemometers measure 3-D winds at 10 different heights on the tower. Samplers at the same heights measure PT concentrations at 30-minute intervals. (3) Tom Watson and Ray Edwards examine the differential Global Positioning System system they used to position the PT sources every four degrees along concentric arcs 100, 200, and 400 meters from the tower. (4) John Nagy sets up the data acquisition for the sonic anemometers on the tower, which measure three-dimensional winds. (Background Image) Meteorological towers like this one outside Gainesville, Florida, measure the net CO₂ loss or gain in the tower's "footprint."



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CALENDAR OF LABORATORY EVENTS

- The BERA Store is located in Berkner Hall and is open weekdays from 9 a.m. to 3 p.m. For more information on BERA events, contact Andrea Dehler, Ext. 3347, or Christine Carter, Ext. 2873.
- Additional information for Hospitality Committee events may be found at the Lollipop House and the laundry in the apartment area.
- The Recreation Building #317 (Rec. Hall) is located in the apartment area.
- Contact names are provided for most events for more information.
- Calendar events flagged with an asterisk (*) have an accompanying story in this week's Bulletin.

— EACH WEEK —

Weekdays: Free English for Speakers Of Other Languages Classes

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

Mondays: BNL Social & Cultural Club
Noon-1 p.m., Brookhaven Center, South Room, free beginners dance lessons. Rudy Alforque, Ext. 4733, alforque@bnl.gov.

Mondays: Pilates/Yoga
12:15 p.m., Rec. Hall. Ext. 5090.

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

Mon., Tue. & Thu: 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.

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

Tues. & Thurs: Jazzercise
Noon, Rec. Hall. Ext. 5090.

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

Tuesday & Thursday: Aqua Aerobics
5:15 p.m., Pool. Ext. 5090.

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

Tuesdays: BNL Music Club
Noon, North Room, Brookhaven Center. Come hear live music. Joe Vignola, Ext. 3846.

Tuesdays: Jiu Jitsu Club
6:30-7:30 p.m. Gym. All levels, ages 6 and above. \$10/class. Tom, Ext. 4556.

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

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

Wed. & Fri: On-Site Play Group
10 a.m.-noon, Recreation Bldg. An infant/toddler drop-in event. Parents meet while children play. Petra Adams, 821-9238.

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

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

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

Wednesdays: Pilates/Yoga
5:15 p.m., Rec Hall. Ext. 5090.

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

In Memoriam — Hiroshi Takahashi

Hiroshi Takahashi, a senior physicist in BNL's Energy Sciences & Technology Department, died at 77 on September 16.

Born in Japan, Takahashi received his Doctor of Science degree in nuclear engineering and reactor physics from Waseda University in Tokyo in 1959 and joined the staff of the Japan Atomic Energy Research Institute (JAERI), Tokai, Japan. As a theoretical physicist, he engaged in the study of neutron transport and nuclear reactor theory.

Takahashi's association with BNL came in three stages. First, he became a research associate in the Department of Nuclear Engineering (DNE), 1959-61, taking a leave of absence from JAERI. He worked on nuclear reactor theory including the study of neutron transport that was part of his thesis study. He left BNL to spend a year at the Euratom Joint Research Center at Ispra, Italy, before returning to Japan.

Takahashi then returned to DNE as an associate physicist, 1966-74, subsequently moving to the Department of Applied Science (DAS), 1969-74, as a physicist. He diversified his field of research to include evaluation of neutron cross sections, the study of high energy fission reactions following spallation reactions, and the design of pulsed fast reactors. He next served as Professor of Reactor Theory at the Tokyo Institute of Technology, 1974-76, lecturing on reactor and nuclear physics to graduate students and engaging in research in solid state physics and in the quantum foundations of the free electron laser.



Returning to BNL in 1976 as a physicist with tenure in DAS, Takahashi researched applications of accelerator technology to nuclear technology-related issues such as a conceptual design of accelerator-based systems for transmutation of minor actinides and fission products, accelerator-based tritium production, and accelerator-based fusion. He also worked on anti-proton production, gamma-ray production by annihilation of positrons, and the conceptual design of deep, underground reactors. During this time, he rejoined DNE and was promoted to senior physicist in 1992.

From worldwide, friends, colleagues, and former colleagues expressed their sense of loss at Takahashi's passing. As Satoshi Ozaki recalled, "Hiroshi and I arrived at BNL at the same time and shared the experiences of new arrivals at BNL, which was then still young." James Powell recounted the many novel and incisive contributions that Takahashi made to the frontiers of nuclear engineering. Robert Bari commented that upon visiting research institutes in Japan, he had learned of the unparalleled esteem with which Takahashi was held in his native country. All, including another colleague, Arnie Aronson, concurred that, in addition to having been an outstanding and innovative scientist who made lasting contributions in both basic science and applied technology, they remember Takahashi as a warm and modest man who endeared himself to all who knew him.

A resident of Old Field, Hiroshi Takahashi is survived by his wife Yoshiko and his daughters Mariko and Emiko.

BNL Advocacy Council Member Needed

One representative of the Lab's diverse workforce is needed to become a member of the Brookhaven Advocacy Council (BAC).

If you are a good listener who can maintain confidentiality, remain impartial, base your judgment on fact rather than emotion, are interested in establishing an atmosphere of trust between BNL management and its employees, and are willing to devote time and energy to ensure that everyone enjoys equally the quality of life that BNL offers, consider becoming a BAC member.

BAC is a key component of BNL's system of justice. The members advise and make recommendations to the Lab Director on resolving employee/guest/user concerns or issues that are brought to BAC's attention. BAC is charged with the authority to receive and respond to employee/guest/user concerns or issues; analyze and research data; and propose resolutions. Members have access to all pertinent, uncensored information, within BNL's guidelines regarding confidentiality, to assist them in resolving these concerns or issues. Membership responsibility consists of regular participation in the monthly Council meetings for three years. BAC functions independently of the Human Resources & Occupational Medicine Division, reporting directly to the Lab Director.

If you are interested in being a candidate, contact Susan Foster, Employee Relations Manager, foster@bnl.gov or Ext. 2888, by October 20. Foster will need: your name, extension, e-mail address, department/division, and position. The committee will recommend candidates to the Lab Director, who makes the final decision and appoints the members.

Walk to Fund Cancer Research — Walkers Wanted

The annual Walk for Beauty, Walk for Life will be held on Sunday, October 22. The four or six kilometer walk through scenic, historic areas of Stony Brook village raises funds for breast and prostate cancer research at Stony Brook University. BNL has been a sponsor and active participant in the Walk for many years.

BNL would once again like to gather a team to support this great event. A brochure with the registration form, walker sponsor sheet, and driving directions is available at www.bnl.gov/diversity/womansPrograms/default.asp#Walk_for_Beauty or by contacting Stasia Ann Scocca or Joyce Fortunato. All participants are responsible for their registration and fee of \$20 or sponsorship.

If you have any questions or would like to help, contact Stasia Ann Scocca, Ext. 3979 or scocca@bnl.gov, or Joyce Fortunato, Ext. 4229 or mortimer@bnl.gov.

One-on-One Retirement Counseling

A TIAA-CREF consultant will visit BNL on Thursday, October 12th, Thursday, October 19th, Tuesday, October 24th, Wednesday, October 25th, Monday, October 30th and Tuesday, October 31st to answer employees' questions about your financial matters.

The consultant will help you:

- 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 Arlene Lyons, (866) 842-2053, Ext. 4629.

CIGNA at BNL, Mondays

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

2007 BSA Scholarship Alert

Applications for 2007 BSA Scholarships may now be obtained from the Human Resources & Occupational Medicine Division, Bldg. 185. Completed forms must be sent to BSA Scholarships, Scholarship and Recognition Programs, P.O. Box 6730, Princeton, NJ 08541-6730, by November 15, 2006. A copy of the application must also be filed with Bonnie Hulse, Bldg. 185.

Applicants must be secondary school seniors who will be graduated during the current academic year and entering college by fall 2007. To qualify, applicants must be: children of BNL employees who began regular, full-time, or regular, eligible part-time employment no later than November 15 of this year, and who are employed by BNL at the time the award is announced; or children of retired employees or employees who died while in regular service at the Lab. Stepchildren are eligible if the employee regularly claims the child as a dependent for income-tax purposes, or if the stepchild has resided in the employee's household for the previous two years before making the application.

All scholarships are awarded competitively and are renewable for up to a total of four years of study toward an academic degree. Selection is made by an independent committee appointed by Scholarship and Recognition Programs in Princeton, NJ. Thirteen scholarships will be awarded without regard to ethnicity. Two additional scholarships will be awarded to under-represented minorities (Black, Hispanic, or Native American) achieving the requirements established for these scholarships.

For more information, call Bonnie Hulse, Ext. 2885.



Equal Voices Ensemble, 10/11

All are welcome to attend the BSA Noon Recital on Wednesday, October 11, when Equal Voices will perform. This six-part vocal ensemble is dedicated to aesthetic exploration of the vocal art. From Victoria to Vaughan Williams, from Bassi to the Beatles, Equal Voices uncovers new interpretations of the familiar and the unusual.

BSA Noon Recitals are free and open to the public. Visitors to the Lab of 16 and over must carry a photo ID.

BERA Hispanic-Heritage Club Event

Milagro Seven-Piece Band Plays Tribute to Santana, 10/14

Founded in 2004 by lead guitarist and vocalist Juan Antonio, Milagro, a seven-piece band with a full percussion section, will perform at Berkner Hall, sponsored by the BERA Hispanic-Heritage Club, on Saturday, October 14, at 7:30 p.m. The band, well-known at venues all over Long Island, will play tribute to Carlos Santana, a unique, Latin-rock musician who founded the renowned band Santana. Milagro will play a variety of music that spans Santana's 40-plus year career and will also play tunes by the late Latin percussionist Tito Puente.

Tickets are sold at the BERA Store, weekdays, 9 -3 p.m. Advance tickets are \$10, at the door, \$12. The proceeds will be used to benefit the Hispanic Heritage Club Scholarship Program. All are welcome to attend this event, which is open to the public. Visitors to the Lab of 16 and over must carry a photo ID.

Great Adventure 'Fright Fest' at BERA Sales Office

BERA Sales Office is selling tickets for "Fright Fest" at Six Flags Great Adventure, held weekends, September 29 through October 29. BERA has other discounted movie tickets: to Lowe's Theatres, any Regal, Edwards, or United Artists Theatres, and more.

Suffolk County School Districts Start Land Stewardship Program With BNL

Joseph Rubino D0060606



This September, 28 teachers from eleven Suffolk County school districts launched the GREEN Institute Open Space Stewardship Program in their schools. GREEN stands for "Gaining Research Experience in the Environment." The new program, initiated by BNL, aims to foster partnerships between schools and land stewards in their local communities. Students in grades K through 12 will perform environmental research on undeveloped land owned either by a public or private agency.

Melvyn Morris, an educational administrator at BNL's Office of Educational Programs (OEP), said, "This program will benefit land stewards in the management of their property and help students to learn about the scientific process through working with real-life data in the field. Ideally, the program will promote scientific literacy and encourage students to consider careers in science and technology. Further, it should foster a sense of civic responsibility and respect for open space property in participating students."

Three teachers who attended the Lab's

six-week summer Laboratory Science Teacher Professional Development Program — Amy Meyer from William Floyd High School in Mastic Beach, Laura Opitz from North Country Middle School in Miller Place, and Ivan Suarez from Longwood High School in Middle Island — taught the basic protocols of both water and soil testing to the other 25 teachers in a one-week Open Space Stewardship training program sponsored by BNL. Also, students in the program become familiar with using a Global Positioning System, which is a satellite-based navigation system; and a Geographical Information System, which is a system of computer-based data for displaying and analyzing geographical information. For example, roads and waterways on a parcel of land can be linked with environmental data related to birds and other wildlife for a better understanding of how they affect each other. This information may be used for research and for land-use planning.

The teachers in each school will integrate the basic sampling protocols into their own curriculum. Student-collected

data will be archived in a publicly available database. Students will also present their research at an annual public forum to be held at BNL.

The program is not limited to science teachers.

"An English teacher attended our one-week session," Morris said. "There are opportunities for interdisciplinary studies on open lands, involving literature, poetry, photography, art, history, and adopt-a-tree programs."

Three land stewards participated in the one-week program: the Town of Brookhaven, the Suffolk County Parks Department, and the U.S. Fish & Wildlife Service. Among the properties that will be sites of the Open Space Stewardship Program are Warbler Woods Preserve in Yaphank, Carman's River, Miller Place Pond, and the salt marshes in Mount Sinai Harbor.

The school districts represented at the one-week workshop were: East Hampton, Middle Country, Longwood, Mount Sinai, Miller Place, Patchogue-Medford, Riverhead, Sagem, Shoreham-Wading River, Southampton, and William Floyd. — Diane Greenberg

October 2006 Is Healthfest Month — BNL Celebrates Health, Fitness, Safety

BNL's annual health, fitness and safety celebration is well under way. The Co-chairs of Healthfest 2006, Michael Thorn and Denise DiMeglio of the Human Resources & Occupational Medicine Division (see photo, below), encourage all BNLers to take part in the various events, including the safety fair, which will be held on Tuesday, October 17. All are invited to join in the events and activities described here and in a flyer mailed to all employees.

New Grand Prize Raffle

For each Healthfest event you enter, you get one

chance for the grand prize raffle. A George Foreman grill and rotisserie combo may be yours! The winner will be chosen at the end of Healthfest.

'Wheel of Fortune' Game

Test your knowledge of safety and maybe win a prize.

The Healthfest Month Timetable is summarized below. To register for an event, complete the form at the top of the flyer sent to all employees and return it to Michael Thorn, Bldg. 490.

Arrivals & Departures

— Arrivals —

- Roberto Duca CFN
- Jorge Camacho CMP&MS
- Anatoly Evdokimov Physics
- Carlos Gamboa Physics
- Shrihari Gopalakrishna Physics
- Mark Hybertsen CSC
- Soo-Kwan Lee CFN
- Michael Mallardi Plant Engr.
- Margaret Reben Fiscal Svcs.
- Harmen Warringa Physics
- Stuart Wilkins CMP&MS
- Peter Zimmerman C-A

— Departures —

- Yury Adamov CMP&MS
- David Dougherty NNS
- Nathaniel Foster Rad. Ctrl.
- Winnie Jerome Diversity
- Donald Meany C-A
- Denis Suprun Physics
- Appathurai Vairavamurthy ... ES&T
- Douglas Wright Env. Sci.

Book Fair, 10/12-13

Sponsored by BERA, a range of books for children and adults, and various book-oriented gifts will be on sale at discount prices in Berkner Hall, 11 a.m.-3 p.m., on Thursday and Friday, October 12 and 13.

This will be the one and only, last book fair before the holidays, so if you are planning to give books, here's the opportunity.

Nominees Wanted for ASAP Board Elections

Election time is approaching. The following positions are available on the Association for Students and Postdocs (ASAP) Board: President, Vice-President, Secretary, and Treasurer. The positions are open to every student and post-doc involved with research at BNL and there is no requirement on the amount of time that the nominee has spent at the Lab.

If you would like to know more details about these jobs, or run for one of these positions, or nominate someone else, check www.bnl.gov/asap and/or contact Mark Dierckxsens, mdierck@bnl.gov or Ext. 2247. The deadline for nominations is October 15.

Friday, October 6

11 a.m. - 2 p.m. Massage Day — in Berkner Hall, Bldg. 488. Enjoy a 10-minute massage by a licensed massage therapist, by appointment only. To schedule one of the limited number of massage appointments, first-come, first-served, contact Michael Thorn, Ext. 8612 or mthorn@bnl.gov.

Wednesday, October 11

11:30 a.m. - 1 p.m. Blood Pressure Checks by OMC nurses — in Berkner Hall, Bldg. 488. Available first-come, first-served.

Friday, October 13

Noon - 1 p.m. Mountain Bike Ride — 8-mile ride, with a 5-mile alternate route, along BNL's fire-breaks, starting at the gazebo next to the ball field. Bring your own mountain bike; bike helmets are required to be worn. Participants will receive a 2006 Healthfest T-shirt (supplies are limited). Registration required.

Tuesday, October 17

11 a.m. - 2 p.m. Health, Fitness & Safety Fair — in Berkner Hall, Bldg. 488. Displays, information, drinking-water taste-testing, home-water sample-testing, free raffles — and much more. Registration required for the home-water sample-testing.

Safety Day — at Berkner Hall, Bldg. 488.

See safety demonstrations and displays, including: a mock smoke situation, CPR, blood pressure checks, fatal vision goggles, personal protective equipment, industrial hygiene — and more. You can also spin the wheel and attempt to answer questions correctly to receive prizes at the "Wheel of Fortune" game.

Thursday, October 19

Noon - 1 p.m. Noon Health Lecture — "The Essentials of Sleep: Everything You Need to Know about Sleep," by Marta Maczaj, M.D., Medical Director for Psychiatry, Stony Brook University Hospital Sleep Disorders Center; in Berkner Auditorium, Bldg. 488. To register, contact Linda DiPierro, dipierro@bnl.gov.

12:05 - 1 p.m. Fitness Run — 5-kilometer (3.1 mile) run around the site, starting at Biology, Bldg. 463. The run counts as the first half of the Healthfest Biathlon; the biathlon swim is scheduled for Wednesday, October 25 (see below). Participants will receive a 2006 Healthfest T-shirt (supplies are limited). Registration required.

Tuesday, October 24

11 a.m. - 1 p.m. Fitness Open House — at the gym and pool, Bldg. 478.

11:30 a.m. - 1:30 p.m. 400-yard Swim — at the pool, Bldg. 478.

You must be 18 or older to participate. Those participating will receive a 2006 Healthfest T-shirt (supplies are limited). Registration not required.

Wednesday, October 25

11:30 a.m. - 12:30 p.m. 800-yard Biathlon Swim — at the pool, Bldg. 478. Participants must be 18 or older. To determine biathlon results, the 800-yard swim results will be combined with results of the Fitness Run, so you must also sign up for the run. Registration required.



Joseph Rubino D1111005

CALENDAR

— THIS WEEKEND —

Friday, 10/6

*Healthfest Massage Day

11 a.m.-2 p.m. Berkner Hall. Enjoy massage for 10 minutes by a licensed therapist. By appointment only. Contact Michael Thorn, Ext. 8612 or mthorn@bnl.gov. See notice below, left.

— WEEK OF 10/9 —

Wednesday, 10/11

Healthfest: Blood Pressure Checks

11:30 a.m.-1 p.m. Berkner Hall. Available first-come, first-served. See timetable at left.

Thursday, 10/12

*Book Fair

11 a.m.-3 p.m. Berkner Hall lobby. Assorted new books and gifts, discounted prices. This is the only book fair until after the holiday season.

CAC Meeting

6:30 p.m., Berkner Hall, Room B. The Community Advisory Council (CAC) consists of business, civic, education, employee, environment and health organizations. Members meet monthly, set their own agenda, and work to reach consensus recommendations on issues of concern to them. The CAC meets on the second Thursday of each month. BNLers and members of the public are welcome to attend. Each meeting has a comment period during which community members may voice their opinions and concerns. Sherry Johnson, Ext. 5658.

Friday, 10/13

*Book Fair

11 a.m.-3 p.m. Berkner Hall lobby. Assorted new books and gifts, discounted prices. This is the only book fair until after the holiday season.

*Healthfest Mountain Bike Ride

Noon-1 p.m. Gazebo near ball field. 8-mile ride, with 5-mile alternate, along BNL's firebreaks. Register in advance. See notice at left.

Saturday, 10/14

*Milagro Band Honors Santana

7:30 p.m. Berkner Hall. Seven-piece band Milagro plays tribute to Carlos Santana. Advance tickets at the BERA Store are \$10; tickets at the door are \$12. All are welcome. See notice, page 2.

— WEEK OF 10/16 —

Tuesday, 10/17

Health, Fitness & Safety Fair

11 a.m.-2 p.m. Berkner Hall. Displays, drinking water taste-testing, more. See above, left.

Wednesday, 10/18

418th Brookhaven Lecture

4 p.m. Berkner Hall. Timur Shaftan, National Synchrotron Light Source Department, will talk on "Bright Electron and Photon Beams: Developing New Light Sources." All are welcome to this free public lecture. Visitors to the Lab of 16 and over must carry a photo ID.

— WEEK OF 11/6 —

Tuesday, 11/7

Sprint Wireless Demo

11 a.m.-2 p.m., Berkner Hall. Representatives from Sprint/Nextel will present BNLers with discounts on Sprint's products and monthly service plans. Jamie Addeo, (914) 407-7132, jamie.addeo@sprint.com.

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

Classified Advertisements

Placement Notices

The Lab's placement policy is to select the best-qualified candidate for an available position. Candidates are considered in the following order: (1) present benefits-eligible employees within the department/division and/or appropriate bargaining unit, with preference for those within the immediate work group; (2) present benefits-eligible employees within the Laboratory; and (3) outside applicants. In keeping with the Affirmative Action Plan, selections are made without regard to age, race, color, religion, national origin, sex, disability or veteran status. Each week, the Human Resources Division lists new placement notices, first, so employees may request consideration for themselves, and, second, for open recruitment. Because of the priority policy stated above, each listing does not necessarily represent an opportunity for all people. Except when operational needs require otherwise, positions will be open for one week after publication. For more information, contact the Employment Manager, Ext. 2882. Access current job openings on the World Wide Web at www.bnl.gov/HR/jobs/.

OPEN RECRUITMENT – Opportunities for Lab employees and outside candidates

MK2934. POSTDOCTORAL RESEARCH ASSOCIATE – Requires a Ph.D. in atmospheric sciences or a related field and experience in climate modes, especially energy balance models. Familiarity with radiation transfer, satellite data, and cloud physics is highly desirable, as is the ability to run/analyze climate models of different levels of complexities and compare simulation results with observations (e.g., satellite data). Research will involve a project to investigate (1) the role of entropy in shaping Earth's climate and climate change, and (2) macroscopic principles such as the maximum entropy production principle that govern the weather/climate systems. Under the direction of Y. Liu, Environmental Sciences Department.

MK3353. POSTDOCTORAL RESEARCH ASSOCIATE – Requires a Ph.D. in the neurobiology field, experience with neuropsychology, personality and social psychology, functional neuroimaging and psychopathology. In addition, good communication skills and the ability to work in group settings are important. Will participate in clinical research utilizing neuroimaging techniques and will provide quality subject evaluation and record keeping for scientific investigation in pursuit of scientific and technical excellence. Under the direction of R. Goldstein, Medical Department.

MK3759. POSTDOCTORAL RESEARCH ASSOCIATE – Requires a Ph.D. in materials science. Work will be on the synthesis and characterization of new catalytic materials with a very low platinum content and in the designing of new cells-reactors for synthesizing gram quantities of catalysts. These will involve single crystal and nanoparticle surfaces of metal and alloys characterized using electrochemical scanning probes and synchrotron radiation based techniques. Under the direction of R. Adzic, Chemistry Department

RM3452. TECHNOLOGY ANALYST (I-6) – Requires a bachelor's degree preferably in computer science or related area

or equivalent work experience, excellent communication skills and at least 3 years of customer support experience. Must have strong working knowledge of Linux (preferably RedHat or Debian), workstation hardware and software, be able to troubleshoot Linux workstation issues independently, and have a basic understanding of Linux server hardware and software. Responsibilities include participating in first-level support for ITD Unix Services Group. This position requires some weekend support. Ability to write shell scripts is also required. In addition, knowledge of RedHat Linux distributions, kernel and use of the RedHat Package manager (RPM), Debian Linux distributions and use of the Debian Package Manager (APT), ability to patch systems, knowledge of security (iptables, TCP wrappers), authentication and the following services: NFS, DNS, DHCP, NIS, NTP, Samba, LDAP, Printing, FTP, and Apache are desirable. Solaris, Mac OS X and other UNIX-like experience a plus. Ability to write in PERL or PHP is helpful. Information Technology Division.

RM3845. BIOLOGY ASSOCIATE (P1) – Requires a BS degree in biology, chemistry or related field. Under general assignment, responsibilities include assisting in performing experiments related to analysis of heavy metal transporter in vivo function by genetic and protein chemical approaches. Will maintain laboratory instruments along with purchasing materials and supplies. Biology Department.

Motor Vehicles & Supplies

04 VW JETTA GLS - 4 cyl., 5 spd., 30 mpg, s/roof, 6 disk CD Monsoon stereo, excel. cond. \$14,000/neg. Ext. 4265.

04 CHEVY S10 PICKUP - crew cab., black, 4wd, all pwr., tow pkg., 6 CD changer, hwy. miles. 60K mi. \$13,000/neg. 821-1271.

04 CROSSROADS CRUISER - 30' trailer, dbl. slide, qu. br. lg. bath, bunks, storage. Used only 5 times. \$19,500/neg. 924-0139.

04 CHEVY SUBURBAN Z71 - loaded. Onstar, leather, tow pkg, m/roof, CD, reg. maint. Must Sell. 31K mi. \$28,000/neg. 252-3356.

02 SATURN WAGON - 6 cyl, excel. cond., new tires, belts, batt.; pwr. heated leather seats, a/c, 6 CD, DVD. \$6,000/neg. Ext. 2627.

00 MERCURY SABLE LS PREMIUM - dk. blue, leather int. 3.0Ltr. Duratec DOHC V6, 145K mi. \$4,400/neg. Ext. 4748 or 277-0464.

00 TOYOTA SOLARA SE - original owner, ecel. cond., doesn't need anything. 89K mi. \$8,995. 680-5645.

00 CHEVY VAN/SAVANNA - black, a/t, a/c, runs well, one owner. \$5,400/neg. Brian, 288-1388.

99 HYUNDAI ELANTRA SEDAN - 4cyl., 2.0 l, 4dr., a/t, a/c, p/s, p/w, p/l, am/fm, cass., dual air bags. 58K mi. \$3,990. Stefan, Ext. 7394.

98 PLYMOUTH VOYAGER - Orig. ownr, Gr. Vygr., body fair, 7 pass, a/c, p/w, p/l, c/c. 95K mi. \$2,800/neg. Ext. 4229 or 286-8356.

98 JEEP WRANGLER SPORT - Soft top, grt shape, CD. New batt., tires, rad., w/shield. 98K mi. \$8,000/neg. 206-356-6612.

94 CHEVY/SUZU DUMP TRUCK - Cab over. Brd new a/t, new starter, cust. welding on dump body. \$8,400/neg. 288-1388.

91 ACURA INTEGRA - 2-dr, am/fm/cass, a/t, p/w, p/s, new brakes, batt., 2 tires; hwy mi., gt cond. \$2,500/neg. Ext. 2756 or 987-3839.

BED LINER - for pick-up, from 2006 Chevy Silverado, 6' bed, incl. tailgate protector. \$75. 727-2346.

Boats & Marine Supplies

13' BOSTON WHALER RUNABOUT - 1991, 40 hp Johnson elec. start, trailer, new strg box, cbl. \$4,300/neg. Ext. 7313 or 553-2477.

17' Sailstar Explorer day sailer, complete with sails, outboard, anchor, etc. \$500 neg. Ralph, Ext. 4373 or 286-1353.

Furnishings & Appliances

BED - full-size Serta Prestige Collection Imperial, fairly new, pics. avail., box spring (matching), frame. \$150. 516-805-3178.

FUTON - wooden arm with metal frame, w/mattress, gd cond., \$100, neg. 334-1043.

L/R SET, SOFA/LOVE-SEAT NEW - burgundy/floral \$1,400; Master BR/ Set w/Hdbd, \$400; Day-Bed, \$125; 473-9678.

LOVESEATS - 2, contemporary style w/a light blue patterned, minor repair needed on frame, 929-4425 or 929-3223.

REFRIGERATOR - GE, almond color, 23.5 cu. ft., looks gd., runs excel., approx. 10 yrs. old. \$125. Ext. 4026 or 872-8966.

Audio, Video & Computers

GAME BOY ADVANCE SP - cobalt, all access incl., excel. cond. \$50. Ext. 6044.

GPS - Garmin Personal Navigator, like new, needs charger, avail. at Garmin.com/ebay. Orig. \$300, ask \$135. 291-2039.

MONITOR - Compaq FS740, 17" w/spkr & internal microphone, flat screen, very good cond. \$10. Ext. 5049 or fu@bnl.gov.

Sports, Hobbies & Pets

BABY GRAND PIANO - \$1,200. Excel. cond. Ext. 7007 or 473-9678.

BUMPER POOL TABLE - 40"x55" rectangular, cue sticks, balls, excel. cond. \$165. 220-2302.

FERRETS - 2, male and female, very playful, cage incl. Doug, 889-3690.

NORDIC TRACK CTX - unused, still in box. \$35 obo. Ext. 2346.

SHIH-TZU PUPPIES - Adorable, 8wk. old pups. Male & Female. Marie, 745-6721.

Tools, House & Garden

COAL STOVE - 1980s Surdiac, top condition, barely used. Free coal if you empty the bin. \$450. Ext. 3721 or 473-4375.

Miscellaneous

COIN SORTER - battery operated, paid \$20, best offer. Ext. 8315.

GERMAN-SPEAKING STUDENTS - enroll now, all ages, toddlers-adults, Saturday classes for German learners. Simone Oppenheimer, 929-0043.

JET TICKETS - 2 tickets for 11/19, 11/26, 12/10, and 12/31. Section 237 row 6. \$95.00 face value. John, Ext. 4028.

YOUTH DESK & BUNK BEDS - \$700; Verizon pic. phone, new-n-bx., \$100; m/wave, \$40; camera/video, b/o, more. 591-1546.

Two's Company



Mourning doves snapped on site earlier this year by Lab photographer Roger Stoutenburgh

Yard & Garage Sales

BROOKHAVEN HAMLET - Saturday, Oct. 14, 3 Chimney Court off Andiron (Andiron is off South Country Rd.). Ext. 3830.

WADING RIVER - Collectibles, furniture, Xmas, tools. Sat/Sun, 10/7-8, 9 a.m. Sound Ave. to Fairway Dr. Ext. 5744 or 929-4440.

Free

COIN SORTER - battery operated, batteries incl. Ext. 8315.

DAY BED - Decorative, framed, with twin mattress. You pick up. 631-588-1214.

Wanted

LOG SPLITTER - to rent or buy, gas powered or electric to split seasoned oak to 24" in diameter. Ext. 5288 or 775-0724.

MOTHER'S HELPER - Temp., flex. hours babysitter needed during the day. Dec. through March. Pt. Jefferson area. Ext. 4532.

On-Site Service Station

Upton Industries, Inc., the on-site service station, is ready to provide gas, and also, New York State inspections, battery checks, new tires, timing belts, and all vehicle servicing, while you are at work. Call Ext. 4034.

For Rent

ANTIGUA - Timeshare wk 11/25-12/2, r/ trip airline tax about \$500 not incl. Must sell. See www.antiguavillage.net. \$500/wk./neg. Mike, Ext. 2550 or 744-7360.

BLUE POINT - Rental through June 07. Cozy furn, 4 bdrm, bayfront home, 20 min to bnl, quiet, beaut. sunrises over Gt. South Bay, Utes incl. \$1,800/mo./neg. 987-6904.

EAST MEADOW - 2 bdrm., d/r, l/r, eik, no pets, outside ent., incl. util. \$1,300/mo. Steve, Ext. 4211.

MANORVILLE - lg. new bdrm, 10 min. to BNL, clean, quiet, priv. off st. prkg., lg. l/r, eik, lots closet space, legal, incl. all \$1,000/mo. Annamarie, 878-8967.

MILLER PLACE - lg., furn., non-smkg., 7-m. Col. home in prof. quiet area, cac, internet, tv cable, deck, fenced yard, own w/w bdrm. 9 mi. to BNL. \$650/mo. 744-8386.

N. SHIRLEY - 1 bdrm grd-level apt., pvt ent., Clean & quiet, utility, cable incl., no smkg./pets. Close to LIE and Lab. \$800/mo. Ganga, Ext. 3849.

SELDEN - lg. room for rent, 6A access, nice area. \$160/wk. Frankie, 846-6132.

SHIRLEY - 2 lg. br., l/r, eik, full bath, util. rm., no smkg/pets, + util., cable \$1,300/mo. Maria, 399-1756.

SHIRLEY - lg. 1st flr., 1 bdrm., 1 bath, a/c, eik, pvt. ent., privacy fenced yard, all utils. & cable incl., just off Wm. Floyd, 1 mi. to ocean. Avail. now, \$850/mo. 399-4879.

SHOREHAM - share non-smkg., furn. house, internet, tv cable, deck, large bdrm., 7 mi. to BNL. \$650. \$650/mo. Ext. 3785 or 7443543.

SOUND BEACH - 3 bdrm., 1-1/2 bath, new Col., lg. eik, f/p, bsmt., level corner lot, taxes \$2,900. \$1,800 mo. rent, or sale \$350,000/neg. 821-1271.

WADING RIVER - sunny studio apt., new full kit., d/w, new full bath, cac, heat, own thermostat, no pets/smkg., all util. incl. \$850/mo. 806-1310.

YAPHANK - studio apt., 4-mi. to BNL, furnished, high-spnd Internet, avail. 10/1. \$750/mo. 924-3049.

For Sale

CENTER MORICHES - pristine 3-bdrm., 2-bath contemp. ranch plus sep. 1-bdrm. apt., fully updated, on 1/2 acre, close to Lab. \$539,000. 878-6220, leave msg.

CENTER MORICHES - Waterfrt 50' new blkhd, 4-bdrm, 2-bth Col. hdwd flrs, 2-car det. gar/fam rm overlkng water, deck, w/d, s/s appls. \$530,000. Ext. 5288 or 775-0724.

KINGS PARK - 4-bdrm., 2-bath hi ranch, poss. m/d, tot. renov., oak flrs, s/s appls., cath. ceilings, sky lights, jcczi, tub, walk to park. \$469k/neg. Ext. 5319 or 835-8309.

OLD BETHPAGE - l/r, remod. kitch & bath, 3 bdms, full basement, gar., bckyd, patio, new w/d, alarm, nr B/page St. Pk, 60x105 sq. ft. \$425k Walter, 516-420-0688.

RIDGE - great home w/water view, 3 bdrm., 1 bath, l/r w/ f/p, eik, d/r, bsmt., oak floors, bonus rm w/hot tub, 1-yr. warranty. \$319,900/neg. 886-1434.

RIDGE - 4-bdrm, 2.5-bath Colonial in great development, builders acre, cac, full fin. bsmt. w/ose, new kit. and mstr. bath, fenced yard w/pool. \$479,900. 252-3356.

SELDEN - mint 2-bdrm., 2-bath condo at Bretton Woods, golf, tennis, indoor/outdoor pools, bowling, gym, billiards. \$285,000/neg. Kevin, 289-5209 or 790-1592.

SHOREHAM - sprawling 5-bdrm., 2 bath ranch, move-in cond., br.-new appl., dr/way, cac, heating syst. & HWH, f/p, ins., fenced yard, 18x18 shed. \$369,900/neg. 848-8072.

SOUND BEACH - 3 bdrm., 1-1/2 bath, new Col., lg. eik, f/p, bsmt., level corner lot, taxes \$2,900. \$1,800 mo. rent, or sale \$350,000/neg. 821-1271.

Defensive Driving, 10/14

The next six-hour Defensive Driving (Point & Insurance Reduction) course will be held on Saturday, October 14, in Room B, Berkner Hall, 9 a.m.-3:30 p.m. Seating is limited to 40 people, and pre-registration is required. Organized by the Environmental Safety, Health & Quality 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, 821-1013, and leave a voicemail with your telephone number. For more information, call Sarah Wiley, Ext. 4207.

Wanted: BNL Art and Crafts for Fall Show



BNL artists, photographers, sculptors, and crafters — your most beautiful, eye-catching work is needed for the BNL Art Society's upcoming Art and Crafts Exhibit to be held at Berkner Hall from Monday to Wednesday, November 20-22, 11:45 a.m. - 1:30 p.m. An evening reception with refreshments will also be held on Monday, November 20, 5 - 7 p.m.

BNL employees, retirees, facility users, guests of BNL, and family members 15 years and older, may all contribute. More than one piece may be

entered by an exhibitor, to be shown as space permits. Please prepare your finest skilled and creative works for the Lab community to enjoy.

Exhibits for the show must be brought to Room C, Berkner Hall, the afternoon of Friday, November 17. To be included in the catalog, complete a form for each work entered and return it by Monday, November 13, to Bob Chrien, Bldg. 510A, or Liz Seubert, Bldg. 134, or (better yet!) e-mail the information requested below to chrien@bnl.gov or lseubert@bnl.gov.

Entry Form for BNL Art, Craft Exhibit, November 20-22

Name: _____ Home Phone: _____

BNL Contact: _____ BNL Ext: _____

Type of art/craft (painting, sculpture, photo, pottery, quilting, etc.): _____

Title of Work (if there is a title): _____

Description (medium, material, size, etc.): _____

Please return to Bob Chrien, chrien@bnl.gov, Bldg. 510A; or Liz Seubert, lseubert@bnl.gov, Bldg. 134, by 11/13.



the Bulletin

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Liz Seubert, editor
John Galvin, reporter
Roger Stoutenburgh, photographer

On the Web, 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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