

magnify objects and their inner

structures, electron microscopes

project electrons toward the ma-

terial under study. The electrons

penetrate the sample to reveal

its atomic structure, which can

be related to its properties. Zhu

and his group use state-of-the-art

electron microscopes that can

magnify an object more than 50

the structure and properties of

materials such as thermoelectrics

that can convert heat to electric-

ity, superconductors that can

conduct electricity with no en-

ergy loss, and materials that can

be used in magneto-electronic de-

vices at nanoscale dimensions for

applications ranging from digital

Physical Society, Zhu has won

numerous awards for his work,

including the International Fed-

eration of Societies for Electron

Microscopy's Kazuo Award in

1986, the American Ceramic

Society's Roland B. Snow Award

in 1988, DOE's Chunky Bullet

Award in 2001, and BNL's Distin-

guished Science & Technology

Lab departments collaborate to complete a new computer data center

Award in 2003.

for huge quantities of data from experiments around the world

A Fellow of the American

communication to data storage.

Zhu's work includes assessing

million times.



August 21, 2009

BNL's Yimei Zhu Elected Fellow, **Microscopy Society of America**

Yimei Zhu of the Condensed Matter Physics and Materials Science Department, has been elected the inaugural Fellow of the Microscopy Society of America, an affiliate of the American Institute of Physics and the American Association for the Advancement of Science. Limited to a small fraction of members, the designation of Fellow recognizes senior distinguished members of the society who have made significant contributions to the advancement of the science and D practice of microscopy.

Zhu was awarded the society's first fellowship at its annual meeting in Richmond, Virginia, in July. His citation reads: "For outstanding and innovative development and implementation of advanced electron microscopy techniques including quantitative diffraction, imaging, spectroscopy, and phase retrieval methods in understanding superconducting, ferromagnetic, and strongly correlated materials."

"The Microscopy Society of America is a very large and diversified society with members working in both physical sciences and life sciences. I am very happy about this recognition from my peers in the society," Zhu said. "I am fortunate to be able to work with my colleagues at Brookhaven Lab, where we have several world-class electron microscopes, and where I have access to complementary methods at the National Synchrotron Light Source [NSLS] to study the structure and properties of materials at the atomic scale. Eventually, I will have access to more sophisticated probes at the NSLS-II." Currently under construction, the NSLS-II will be the world's brightest synchrotron when it goes online in 2015.

Unlike optical and x-ray microscopes, which use light to

A new customized extension has supported by BNL Institutional Building 515 at BNL — and it is the facility will assist researchers a 4,500-square-foot basement. working with RHIC, the Large Hadron Collider's ATLAS Detector, the Large Synoptic Survey Telescope in Chile, the Daya Bay Neutrino Experiment in China, and the Long Baseline Neutrino Experiment in South Dakota. "This building represents a significant step forward in our Lab's computing infrastructure and will enable the installation of important new capabilities to everyone's benefit," said Doon Gibbs, the Lab's Deputy Director for Science and Technology. "I was particularly impressed at the way RACF, ITD and F&O worked together to bring this project to completion, and especially with F&O's ability to deliver such a major undertaking under extremely challenging constraints. They did it safely, on time and on budget and have produced a lot of happy customers. I congratulate F&O for a job very well done."

Totaling 11,100 square feet, been added to the Information Plant General Plant Project the extension is made up of a Technology Division's (ITD) (IGPP) Funds. Data processed at 6,600-square-foot main floor and The new data center will house servers and data archives capable of storing multiple petabytes of data. Just one petabyte contains approximately 1 million gigabytes — the equivalent of 6,250 hard drives in a new "stock" Apple laptop computer. 'We are essentially a library system that can store and crunch huge amounts of data," explained Tony Chan, a sub-group leader within RACF. "With our computers, a fast network, and a robotic tape archive system, researchers can request data and then analyze, store, and reanalyze it from anywhere."



The 2009 R&D 100 Award-winning team are Yonggang Cui (seated), from BNL's Nonproliferation & National Security Department (NNSD), and (counter-clockwise, from right), Terry Lall, Hybridyne Imaging Technologies, Inc.: Ralph James, NNSD: George Mahler, Collider-Accelerator Department; Aleksey Bolotnikov, Ge Yang, Anwar Hossain, and Giuseppe Camarda, all from NNSD. Not pictured are Paul O'Connor and Gianluigi De Geronimo, both from BNL's Instrumentation Division, and Ben Tsui, The Johns Hopkins University.

BNL, Hybridyne Imaging Technologies, Inc., Win R&D 100 Award for Compact Camera **Compact Gamma Camera Will Image Prostate Cancer**

BNL and Hybridyne Imaging Technologies, Inc., of Toronto, Canada, have won a 2009 R&D 100 Award for developing a compact gamma camera for highresolution imaging of prostate cancer. The camera system, called ProxiScanTM, is a nuclear medical instrument that can localize cancer tissue in the prostate gland in detail at an early stage, which is important for the successful diagnosis and early treatment of the potentially deadly disease.

R&D Magazine gives R&D 100 Awards annually to the top 100 technological achievements of the year. Typically, these are innovations that transform basic science into useful products. The 2009 awards will be presented on November 12, in Orlando, Florida.

"The Department of Energy's national laboratories are incubators of innovation, and I'm proud

they are being recognized once again for their remarkable work," said Energy Secretary Steven Chu. "The cutting-edge research and development being done in our national labs is vital to maintaining America's competitive edge, increasing our nation's energy security, and protecting our environment. I want to thank this year's winners for their work and congratulate them on this award."

Existing Diagnostic Technology Limitations

The common way to diagnose prostate cancer - the second leading cancer among men, next to lung cancer — is through a blood test that measures the levels of a protein produced by the prostate gland called prostate-specific antigen, or PSA. Elevated PSA levels may indicate prostate cancer, but with a high number of false-posi-

tive detections. Often, then, men must have an invasive biopsy, normally guided by ultrasound imagery. Other methods for confirming a diagnosis of prostate cancer include conventional nuclear medical imaging techniques, such as positron emission spectroscopy and single photon emission computed tomography.

However, the current imaging methods have limitations. Benign and cancerous tumors cannot easily be distinguished by ultrasound, and fibrous tissues can be mistakenly identified as tumors if patients have had radiation treatment of the prostate previously. Traditional nuclear imaging systems produce lower-resolution images and are less efficient than Brookhaven's compact digital camera. Also, the detectors in current systems are too large to be used in trans-rectal probes.

See R&D 100 Award on pg. 2



See Yimei Zhu on pg. 2 **Making Room for More Data**

green, within budget, and will be ready just in time. Once the first batch of new computers and storage systems are installed, the new data center will be ready to store and analyze hundreds of terabytes of data from the detectors at the Relativistic Heavy Ion Collider (RHIC) and other major experiments around the world planning to use BNL's computing facilities.

A collaboration with the Lab's RHIC/ATLAS Computing Facility (RACF), ITD, Facilities and Operations' (F&O) Modernization Project Office (MPO), and Long Island-based architectural, engineering, and contracting/construction companies, BNL's new building extension is a part of the computer data center expansion project and is the last major project to be funded by DOE's General Plant Project Funds. Future similar projects will be

Built to Suit

"This building was not designed to be just a shell," said Michael Ernst, RACF director. "Planning for the building began in December 2007 and the Lab's Modernization Project Office held

Inside the new data center, ITD's Eric Blum (front left) discusses plans with RACF's Michael Ernst (front right) as electricians prepare to install a switchbox.

meetings with stakeholders and the construction companies each week, maintaining a lot of interaction to develop the building in

the right direction. Those meetings were extremely important throughout the entire process." See Data Center on pg. 2

The Bulletin

Yimei Zhu from pg. 1

Zhu earned a B.S. in materials physics from Jiao Tong University, Shanghai, in 1982, and was one of the first few students selected in China to pursue graduate study abroad after the country opened its doors to the West. He received his M.S. and Ph.D., also in materials physics, from Nagoya University, Japan, in 1985 and 1987, respectively. After working as a research associate at the University of Virginia, he joined BNL in 1988 and rose through the ranks to become a senior scientist in 2002. He is an adjunct professor at Columbia University and Stony Brook University.

— Diane Greenberg

BNLers Gather At BWIS Talk On Compensation

About 100 people filled Berkner Room B on Thursday, August 13, to hear the Lab's compensation manager Robert Kelly talk about BNL salaries and how they are determined. The presentation was sponsored by Brookhaven Women in Science (BWIS).

In his lecture, Kelly explained that most Lab jobs are categorized into "families" to enable career growth. He also discussed how jobs are assigned to salary schedules and grades with ranges that are reviewed annually, and how the Lab ensures that salaries are both competitive with other organizations and equitable relative to other BNL employees.

Unlike many private companies, the Lab's compensation system is more transparent. According to Kelly, "All the Lab's compensation policies are freely available on the Human Resources and Occupational Medicine Web site as well as SBMS [the Standards-Based Management System]."

BWIS has posted Kelly's presentation slides on its Web site: www.bnl.gov/BWIS/. Additional information on the Lab's compensation policies are available online at www.bnl.gov/HR/salaries-awards/ and https://sbms.bnl. gov/sbmsearch/subjarea/56/56_ SA.cfm?parentID=56.

AdoptaPlatoon Fundraiser

For a future AdoptaPlatoon fundraiser, please drop off donations of books, CDs, and DVDs at the front desk, Occupational Medicine Clinic, Bldg. 490.

Data Center from pg. 1

Unlike other on-site data centers that were installed in pre-existing buildings, this new data center will reside in a highly customized structure designed and built specifically for it.

"In addition to the security reasons, the main reason there aren't any windows in this building is to keep it very well-insulated," said Eric Blum, manager of the Brookhaven Computing Facility within ITD. "The computers in this room will produce a lot of heat so there are several very large cooling units inside the main room that will keep everything cool."

Another custom feature of the new extension is the 30inch raised floor with removable tiles, said Blum. "These large cooling units contain big fans that push a lot of air beneath the floor which then comes out through floor grates near the computers. This floor is 18 inches deeper than the floor in the older data centers but that big underfloor space is needed to keep all of the air circulating."

Dennis Danseglio noted other advantages to the 30-inch raised floor. He is the MPO project manager who coordinated the entire construction of the new building extension.

According to Danseglio, electrical and networking cables below the floor's surface are much more accessible for maintenance and upgrades because of the extra space. The subflooring has also been fitted with several drains and a leak detection system to contain

R&D 100 Award from pg. 1

Cutting-Edge Gamma Camera Gets Better Images

In contrast, the new cadmium zinc telluride (CZT)-based gamma camera is small enough for trans-rectal prostate cancer diagnosis, after the patient is injected with a tracer radiopharmaceutical. The high-resolution CZT detector is the cutting-edge technology that drives the novel system. Using this new technology, the working distance between the imaging system and the prostate gland is minimized, allowing urologists to obtain better images with a smaller amount of injected radioactive tracer, compared to conventional nuclear medical systems.

"This project has provided a great opportunity to take gamma-ray detector technology originally developed for national security and apply it toward important societal goals in the area of cancer diagnosis and treatment," said Ralph James, a senior physicist at BNL who is the Laboratory's principal co-inventor of the technology together with BNL associate scientist Yonggang Cui. Cui added, "The CZT material combines the best aspects of conventional nuclear imaging detectors while minimizing their weaknesses. Our experience in detector development and electronics design has been critical in delivering this high performance system in a very compact package at a competitive cost."



RACF's Tony Chan (right) reviews schematics with Dennis Danseglio of F&O's Modernization Project Office in one of the Lab's existing data centers.

any leakage and prevent flooding from affecting the computers and the facility.

Overridden Building Blocks

Under the management of Danseglio and F&O's MPO, the building extension has reached "Substantial Completion" in only 11 months. Some work outside the structure on sidewalks, parking lots, and drainage is still ongoing as computing equipment is installed this month, but the facility is on track to be up and running this fall.

"All the snow and rain this year jeopardized the completion date. But we began pouring concrete two days before Christmas and crews worked through several

optimized for surgical use as a probe to guide the removal of cancerous tumors while minimizing damage to surrounding healthy tissues.

CZT detectors have fostered the development of new instruments for measuring radiation. Numerous medical, industrial, scientific, environmental and homeland-security applications exist for this technology, including handheld instruments to reduce the trafficking of nuclear materials and portable field instruments for environmental monitoring and remediation.

DOE's Office of Nonproliferation Research & Development has been the principal sponsor funding the development of CZT detectors, and Hybridyne Imaging Technologies funded the design and engineering of the new compact gamma camera. The inventors have 16 patents on the technology, ranging from detector design and fab cation to imaging. Brookhaven Science Associates, the company that manages BNL, has a patent pending on the advanced CZT detectors. Established by Congress in 2000, NNSA is a semi-autonomous agency within DOE responsible for enhancing national security through the military application of nuclear science in the nation's national security enterprise. NNSA maintains and enhances the safety, security, reliability, and performance of the U.S. nuclear weapons stockpile without nuclear testing; reduces the global danger from weapons of mass destruction; provides the U.S. Navy with safe and effective nuclear propulsion; and responds to nuclear and radiological emergencies in the U.S. and abroad (see www. nnsa.energy.gov).

weekends, including Memorial Day and the 4th of July, to make the deadline," said Danseglio.

Not one injury has occurred in the time it has taken to reach substantial completion. In addition to standard safety equipment such as hard hats, safety glasses, and steel-toed boots, Danseglio had a permanent safety system installed so anyone working on the roof could "tie-off" to the structure, both during construction and in the future.

Keeping it Green

The extension was also built with environmental consciousness, said Danseglio. The ceiling tiles were made from materials that are 71 percent recycled and "fly now and 2012.

August 21, 2009

ash," soot captured from coaldriven power plants, was added to recycled concrete. This recycled additive reduces the amount of water and concrete needed while also making the mixture stronger and more durable. Other building materials from regional sources were used too, as required by Leadership in Energy and Environmental Design (LEED), a standardized green-building certification system.

The computing facility will also rely on a more environmentally friendly back-up power system, or "uninterrupted power supply" (UPS). Rather than relying on a battery-based UPS that takes up large amounts of space and leads to dead, toxic batteries over time, this new facility is backed up by a flywheel system. These flywheels constantly spin using a small amount of power but in the event of a power outage, momentum from the rotating flywheels will provide enough temporary power for the electrical system to switch over to backup generators without shutting down any of the facility's computers. This UPS equipment will be stored in the facility's basement.

The Current Status

The first batch of computing equipment will be installed in Bldg. 515's new extension during August. Only a portion of the facility will be used in the extension's early years but additional equipment will be added as more electricity is directed to the building between now and 2012. — Joe Gettler

Help for Depression, Suicidal Thoughts 'No One Knew My Pain'

The following message comes from BNL's Employee Assistance Program Manager, Nancy Losino:

If depression or bipolar disorder affects you or someone you care about, you know that one symptom of these illnesses may be feelings of hopelessness and thoughts of suicide. If such thoughts occur, there are ways to respond with strength and courage. It is important to remember that suicidal thoughts are temporary, but suicide is permanent. Some facts to keep in mind:

- Mood disorders are not character flaws or signs of personal weakness, nor are they conditions that will just "go away" with positive thinking.
- Mood disorders are medical conditions caused by changes in the chemistry of the body and brain. There are many effective medications that can reverse the impact of brain chemistry, and when combined with psychotherapy, can produce rapid recovery from depression and suicidal thinking.
- Finding the right treatment can feel like too big a task when you are feeling depressed. The Employee Assistance Program (EAP) can expedite this process utilizing the innetwork providers who are accepting new referrals. Call Ext. 4567 for an appointment. Walk-ins are also accepted. We are located in Bldg. 490, in room 5-1.

More information about preventing suicide can be viewed

CIGNA Questions? Get Answers, 8/26

Attention, all CIGNA Medical, Dental and Flexible Spending Account participants: A representative from CIGNA Healthcare will be on site in the Research Support Building, Bldg. 400, on Wednesday, August 26, to assist you with any claims issues that you have been unable to resolve yourself. Mary Beth Kivlen will be available by appointment from 10 a.m. to 1 p.m. Appointments will be scheduled every 30 minutes. Be sure to bring all pertinent documentation to your meeting. To schedule an appointment, call Jorge Romero, Benefits Office, Ext. 5126.

System Can Be Modified To Image Other Cancers

Although the CZT-based system was designed to reveal prostate cancer, it can be modified for imaging other cancers, such as cervical, uterine, colorectal and breast cancers. It can also be

— Diane Greenberg

on the EAP website, in a short video titled: "Suicide Prevention." It is completely confidential, no sign-in is required. You can also view it via: *http://training.bnl.gov/course/Suicide/*.

EAP will also be conducting a Depression Screening Week September 21-25, 2009. See upcoming flyer for details. If you are experiencing clinical symptoms, please call EAP at Ext. 4567 or during off-hours at 631-466-2078. Additional 24/7 coverage is provided via CIGNA Behavioral Health at 1-877-622-4327.

Service-Station Contractor Change

Upton Industries, Inc., the current contractor for BNL's on-site service station, is leaving the Lab. Monday, August 31, is the last day that the station will remain open.

A new contractor will start operating on or about November 2, possibly a little earlier. In the interim, the on-site service station will be closed for repairs and maintenance. During this time, the Lab community is asked to get gas and have vehicle repairs done off-site.

Service Station Will Honor Existing Guarantees

After August 31, the on-site service station, Upton Industries, Inc., will leave the Lab. At their new location, which will be the Getty Station, 1823 Middle Country Road, Ridge, they will honor all warranties or guarantees that were given for vehicles they serviced while Upton Industries was at the Lab.

Swimming Across the Sound To Help Cancer Patients

At work, John Gosman has a challenging job. He is the lead mechanical engineer for conventional facilities at the National Synchrotron Light Source II, a 386,035 square-foot building that will house the world's brightest light when it is completed in 2015.

Gosman also tackles large, challenging projects in his leisure time. On Saturday, August 1, he swam 15-1/2 miles in 9 hours, 53 minutes, from Port Jefferson, New York, to Bridgeport, Connecticut in the 22nd Annual St. Vincent's SWIM Across the Sound marathon. In doing so, he raised \$1,580 for St. Vincent's Medical Foundation, which provides cancer education, screening and prevention programs at low or no cost for the elderly and underserved. In addition, SWIM helps individual cancer patients with specific needs, such as the funding of wigs and prostheses, medication assistance, and transportation for treatments.

While 160 swimmers took the SWIM challenge, Gosman was one of only 15 solo swimmers to cross the Sound; the others were relay swimmers.

"It's feels great to have been a part of this," Gosman said. "I love swimming, but what makes it especially exhilarating is that it benefits a great cause."

Gosman lost several family members to cancer, and he was moved when a former college friend sent him a contribution for SWIM, saying he was currently battling cancer.

The SWIM marathon began in 1987 when Jeffrey Keith, who had lost part of his legs to cancer, swam across the Sound with his friend Matthew Vossler, raising \$5,000 for cancer care. This year, the swimmers raised more than \$350,000 in SWIM Across the



Sound, and donations are still coming in.

A total of 85 boats escorted the swimmers, along with a number of law enforcement and Coast Guard boats. A captain, a first mate, an emergency medical technician and Gosman's wife were watching Gosman closely from the boat alongside him. "I wasn't allowed to touch the boat, but support was provided by my wife who tossed food and fluids to me about every four miles, then every two miles, and, towards the end of the swim, every mile," Gosman explained. "I needed to keep up my energy."

Growing up in Wading River, Gosman began swimming in the Sound as a very young child. As a student at Clarkson University, he was a member of the college swim team, focusing on 50-meter to 200-meter races. This year, Gosman became interested in long-distance open water swimming and began to intensify his training. On Memorial Day weekend, he started to train for the marathon every day, spending early mornings swimming in Wildwood Lake in Riverhead and evenings in the Sound. On weekends, he took his family to Hammonasset State Park in Connecticut, where he would meet with fellow long distance swimmers training for this event. Practice swims would range from 8 to 12 miles in the Sound.

Gosman also swims at the Lab pool, and he praised the BERA Swim Club as an excellent team who were very supportive of his marathon effort. Now that Gosman has accomplished this year's goal, he is set to start training for next year's marathon.

It's not too late to donate funds in support of John Gosman's efforts to contribute to caring for cancer patients. For more information, go to "John's Personal Page" at http://give.stvincents. org/Page.aspx?pid=326&frsid=295 or contact him at Ext. 7832.

— Diane Greenberg

Arrivals & Departures – Arrivals –

Thomas Flanagan	C-AD
Tito Juarez	C-AD
Teri LazarD	ir.'s Office
Joseph Papu	NSLS
Yang Qin	CFN
David Shapiro	NSLS-II
Ciro Sirio	C-AD
Lingyun Yang	NSLS-II
 Departures – 	

Devicharan ChidambaramES Sarah Maine......CEGPA

Defensive Driving Class, In Two Parts, 8/24 & 27

The next six-hour Defensive Driving (Point & Insurance Reduction) course will be held in two parts on Monday and Thursday: August 24 and 27, in Berkner Room B, from 6 p.m. to 9:15 p.m. The course is open to BNL, BSA, and DOE employees, facility-users, and their families. The cost is \$38 per person. Preregistration is required. To register, call Ed Sierra, 821-1013, and leave a message. Include your phone number.

Non-Native English Speakers:

Learn to develop your skill in making Scientific/Technical presentations

The English for Speakers of Other Languages (ESOL) Program Coordinator is available to meet with non-native English speakers who give scientific presentations to give tips on improving delivery.

Assistance includes working on pronunciation, developing the stress and intonation of English, and preparing the presentation in an audiencefriendly way. Please feel free to contact Jennifer Lynch, ESOL Program Coordinator, at *jlynch@bnl.gov* or by calling Ext. 4894 to make an appointment. CALENDAR

- WEEK OF 8/24 -

Monday, 8/24

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.

*Defensive Driving, Part I of Two

6-9:15 p.m. Berkner Hall, Room B. (Note: changed location.) \$38. Call 821-1013, leave tel. no. See notice, left.

Thursday, 8/27

*Defensive Driving, Part II of Two 6-9:15 p.m. Berkner Hall, Room B. (Note: changed location.) Part II. See notice, left.

Saturday, 8/29

*Biker BBQ & Family Picnic

Noon. Gazebo. The Cycletrons invite all with an interest in motorcycles to a picnic: burgers, hot dogs, salads, soda, games, raffles, kids' activities. Tickets are \$10, children of 12 and under are free. Call Tony Arno, Ext. 6153, Charles Gardner, Ext. 5214, John McCaffrey, Ext. 2075.

— WEEK OF 9/7 —

Monday, 9/7

Lab Closed for Labor Day Holiday No Bulletin on 9/11.

Friday, 9/11

*Concert, Dance

8 p.m. Brookhaven Center. Memphis Soul Review will perform Texas rock and blues, rhythm and blues. Tickets are \$16. Visitors to the Lab 16 and older must bring a photo ID. See pg. 4.

— WEEK OF 9/14 —

Monday, 9/14

BSA Distinguished Lecture

4 p.m. Berkner Hall. Arnold Levine, Institute for Advanced Study, who discovered p53, the single most common genetic marker for cancer, will talk on "From Sea Anemone to *Homo sapiens*: The Evolution of the p53 Family of Genes." The lecture, which is sponsored by Brookhaven Science Associates, the company that manages BNL, is free and open to the public. Visitors to the Laboratory age 16 and over must bring a photo ID.

BERA Trip: Cape Cod

Buy tickets weekdays, 9 a.m.-3 p.m. at the BERA Store in Berkner Hall. Coaches depart BNL from the Brookhaven Center. For information on more trips, see www. bnl.gov/bera/recreation/events.asp. Cape Cod: October 2 – 4. Ferry ride, tours of Martha's Vineyard and the Kennedy compound, shopping, and whale watching or dune buggy ride. Singles: \$406, doubles: \$350 each, triples: \$330 each, quadruples: \$315 each — includes transportation, lodging, and some meals. For more information, contact Joann Giambalvo, Ext. 7459, giambalvo@bnl.gov.

Answering Employees' Concerns Benefits Office Reminder

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

- Alert your line management to your concern.
- Is your environment, safety or health problem still not resolved? Contact your Environment, Safety & Health (ES&H) Coordinator or Facilities Support Representative. Concerns covered by labor agreements must be addressed through the labor grievance process.
- You may also report an environmental, safety or health concern through the BNL ES&H Hotline, Ext. 8800, or via the web using the ES&H Concern and Suggestion Form at http://intranet.bnl.gov/ESHQ/ ESH_Concern_Form.asp. You may request anonymity in both cases. If you still believe a condition or practice violates BNL standards, contact the Employee Concerns Program, Susan Foster, Ext. 2888, or EmployeeConcerns@bnl.gov. A formal and confidential investigation will be conducted, and you will receive a response. The Lab will not discriminate against any employee who has filed a complaint. Still not satisfied? You may request an inspection from a DOE representative by filing a request directly with the Brookhaven Site Office, Ext. 4089. Also, be aware that DOE has a process for resolving differing professional opinions, "Differing Professional Opinions Manual for Technical Issues Involving Environment, Safety and Health," (DOE M 442.1-1, Approved 11-16-06). For information, call Ext. 4089. DOE will maintain confidentiality, if requested.

Proof of Student Status All medical/dental plan participants are reminded to submit updated proof of student status to the Benefits Office, Bldg. 400B, for the upcoming college semester. The Benefits Office will submit this

- Dependent name
- Name of college/university
- Semester for which the child is attending
- Indication of full-time status (usually at least 12 credits for undergraduate programs)

to the insurance company on your behalf. Proof of student status

must be in writing from the college or university and include:

More useful information is available at https://sbms.bnl.gov/sbmsearch/ subjarea/200/200_SA.cfm and https://sbms.bnl.gov/sbmsearch/ProgDesc/ESP/ ESP_PD.cfm?ProgdescID=100. For a child over age 19 to be eligible for benefits, he or she must be unmarried, a full-time student attending an accredited college or university and primarily supported by you. Dependent children who meet these criteria may be covered until the end of the year in which age 23 is attained.

Employees covering dependent children over the age of 19 as full time students should be aware that full-time students are only covered in between semesters if the student attends classes on a full-time basis for both the Spring and Fall semesters. Otherwise coverage ends on the last day the child attended an accredited college or university on a full-time basis. If there is a possibility that the child may not be in full-time attendance for the Fall semester, please contact the Benefits Office immediately to discuss continuation of benefits through COBRA.

You must notify the Benefits Office if you have dependents on your coverage that do not meet the above criteria. These dependents may be eligible for COBRA benefits. For more information, call the Benefits Office, Ext. 5126 or 2877.

New Series of Ballroom Dance Lessons Begins Next Month, 9/9

Three new six-week sessions of weekly ballroom dance lessons, sponsored by the BNL Ballroom Dance Club and given by instructor Giny Rae at a cost of \$30 per person for each session, will start

Three new six-week sessions of on Wednesday, September 9. The weekly ballroom dance lessons, new schedule is as follows:

Beginner ONLY hustle lessons, 5:15-6:15 p.m.; intermediate foxtrot lessons, 6:15-7:15 p.m.; and intermediate tango 7:15-8:15

p.m. Classes are held in the North Ballroom of the Brookhaven Center. Lessons are open to all BERA members: BNL employees, retirees, official BNL visitors and their immediate families (spouse and children). Each BERA member may bring a partner, but a partner is not necessary to participate.

Contacts: Donna Grabowski, Ext. 2720; John Millener, Ext. 3853; or Kathleen Tuohy, Ext. 3845.

Swim Lessons For 4-Year-Olds

Swim lessons will be offered on Saturday mornings, specifically for 4-year-old children of BNL families. These one-hour lessons begin at 9 a.m. and will run September 12 until October 24. Registration is \$80 per child. For more information, call Sue Dwyer, Ext. 3496, or the Recreation Office, Ext. 2873.

Classified Advertisements

To apply for a position, go to www.bnl.gov. Select "Job Opportunities," then "Search Job List." LABORATORY RECRUITMENT - Opportu-

nities for Laboratory Employees SR. ADMINISTRATIVE SECRETARY (A-3) Requires some form of secretarial or office administration training, plus six years of experience that includes two years at BNL in the current or similar role. Must posses strong communication skills, both oral and written, and be able to work under pressure, balance priorities and perform multiple tasks. Must possess computer proficiency in MS Office products such as Word, Excel, PowerPoint, Access, and Outlook. Knowledge of Web Reqs and PeopleSoft systems desirable. Will perform routine and a variety of complex administrative secretarial functions for a project team in the MPC&A Cooperative Programs Division. Will be responsible for adhering to the programmatic guidelines of the MPC&A Program established by the DOE National Nuclear Security Administration. Position requires extensive processing of foreign and domestic travel for project team members inside and outside the Laboratory and subcontractors. Typical assignments may include presentation, report and correspondence preparation, scheduling appointments, and other administrative duties. Will be responsible for the correct handling and filing of Russian deliverables and reports, including proper access, reproduction, storage, transmission and destruction of foreign government/access-controlled documents. Will assist Deputy Project Lead with organizing international conferences. Will act as liaison between project team and various BNL departments as well as have frequent contact with highlevel staff at DOE, other national laboratories, and subcontractors regarding travel coordination, contract administration, and invoice processing. Will be involved in the administrative aspects of contracting process. Candidate must be a U.S. citizen and be able to obtain and maintain a DOE "Q" clearance. Nonproliferation & National Security Department. Apply for Job ID #15010.

SR. ADMINISTRATIVE SERVICES ASSIS TANT (A-3) - Requires some form of secretarial or office administration training, plus six years of experience that includes two years at BNL in the current or similar role. Must possess excellent organizational skills and ability to develop and implement systems to improve Division efficiency and effectiveness. Must possess strong com-munication skills, both oral and written, and be able to work under pressure, balance priorities, and perform multiple tasks. Comprehensive knowledge of Laboratory policies and procedures and proficiency in MS Word, Excel, PowerPoint, Outlook and FrontPage is required as well as knowledge of PeopleSoft foreign and domestic travel systems and web requisitions. Must have the ability to work independently as well as function effectively as a team member. Will report directly to the Safety & Health Services Division (SHSD) Manager and will provide varied support including: travel arrangements for Division Manager and all Division staff, re-cords management, tracking deliverables and corrective actions in CCTS and ATS, arranging meetings/coordinating schedules for Division Manager and staff, maintaining and updating SHSD web pages, taking minutes and editing of correspondence and reports. Will act as Training Coordinator and Records Management Representative for the Division. Safety & Health Services Division. Apply for Job ID # 14996.

OPEN RECRUITMENT – Opportunities for Lab employees and outside candidates.

ASSISTANT PHYSICIST (Experimental Particle or Nuclear Physics) - Requires a Ph.D. in physics with emphasis on experimental particle or nuclear physics. Expected to have demonstrated extraordinary capability in the field of particle physics. A proven track record with leadership roles in the field of neutrino physics measurements is highly desirable. Will participate in the activities of the group including the design of the Long Baseline Neutrino Experiment, especially the large water Cherenkov de-tector at DUSEL in South Dakota. There an opportunity to participate in Daya Bay reactor neutrino experiment in China. Participation in the MINOS experiment (Fermilab-Soudan) may also be possible Travel to DUSEL Fermilab Minnesota and/or China should be expected. Will work within the electronic detector group and will have broad associations with other groups in the Laboratory and throughout the world to carry out his/her function. The Electronic Detector Group in the Physics Department currently has ten physicists at various career levels with major current responsibilities in neutrino physics and a long history of research in fundamental particle physics. Under the direction of S. Kettell, Physics Department. Apply for Job ID #14998.



BNLers Compete in Marcum & Kliegman Workplace Challenge

Last month on the evening of July 28, the Marcum and Kliegman Workplace Challenge was held at Jones Beach State Park. The night kicked off with a 3.5 mile run/walk, followed by an "Office Picnic" and is Long Island's largest participatory event. This year, more than 6,000 participants representing almost 200 companies from businesses, non-profit, and governmental agencies from Nassau and Suffolk Counties joined in the event, which is open to employees, their families and friends.

modeling, evaluations, and diagnosis. Research and development experience in cloud/grid computing, and distributed file and storage systems, such as Storage Resource Manager, Lustre, IBM GPFS, Hadoop and its distributed filed systems (HDFs) is highly desirable, as is a familiarity with industrial coding standards to gener ate high-quality software. Should possess strong communication and writing skills, as will be expected to lead graduate students in cutting-edge research, implementation, publication, and proposal writing. The ability to work as part of a team is essential. Under the direction of D. Yu, Computational Sciences Center, BNL policy states that Research Associate appointments may be made to those who have received their doctoral degrees within the past five years. Apply for Job ID #14999.

ENVIRONMENTAL COMPLIANCE PROJ-ECT ENGINEER II (P-7) - Requires a BS in science or engineering (advanced degree preferred) and a minimum of seven years' experience in evaluation and application of environmental regulations (e.g., RCRA, CWA, CAA, etc.) to industrial and laboratory operations. Demonstrated familiarity with pollution prevention concepts, with strong process engineering skills and ability to proactively analyze projects to identify and eliminate compliance problems and wastes required. Demonstrated problem solver. Familiarity with ISO 14001 EMS required. Requires excellent communication and computer skills. A background in environmental data analysis skills is required for determining compliance with regulatory requirements. Responsibilities include senior level technical support to Departments and Divisions to ensure compliance with applicable laws, requirements, and BNL policy. As a career level project engineer, facilitates the definition of project goals, tasks, and resource requirements. Resolves or assists in the resolution of complex problems with design requirements, unsuitability of conventional materials, and coordination with functional departments. Oversees the work of engineers, drafters, technicians, and others who assist in project specific assignments. Environmental Sciences Department. Apply for Job ID #15001.

PHYSICS ASSOCIATE I (P-8) - Requires Master's Degree (or equivalent) in nuclear physics, and expertise in particle detectors. electronics and data acquisition systems. Will participate in research, development and operation of the high-intensity, high brightness optically-pumped polarized ion (H-, 3He++) sources for the RHIC polarization program. Will work on development of low energy (few keV) polarimetry and Faraday rotation polarimetry for the source posuraments and ontimiza tion m and 200 MeV polarimetry for the precision absolute polarization measurements before injection to Booster and AGS, Will also participate in the development and operation of the polarized H-jet and p-Carbon CNI polarimeters at RHIC. Requires at least 10 years of experience in development of instrumentation for the nuclear research, including analog and digital electronics, particle detectors, data taking and data analysis, Polarimeter and polarized ion source development. Collider-Accelerator Department. Apply for Job ID #15005.

port of the Budget Operations Group. Requires an AAS degree in accounting, business or related field, two years of relevant experience, proficiency with MS Word and Excel, excellent organizational skills, strong analytical and communications skills, and the ability to work well in a team environment. Proficiency in PeopleSoft, MS Access and the development and use of macros, and the ability to work independently under pressure is highly desirable. Reports to the Business Operations Manager, NSLS-II. National Synchrotron Light Source II. ERAP Eligible: \$500. Apply for Job ID# 14990.

Motor Vehicles & Supplies

06 AUDI A-4 QUATTRO 3.2L – 53K mi. Black, showroom condition, many extras. \$23,500 neg. 384-2908.

05 CHRYSLER TOURING 300 – 82K mi. black pearl, mint, 6 cyl, many extras. \$9,000 neg. 929-4978 or mjulian@bnl.gov. 04 FORD FOCUS ZTS – 62K mi. 4dr, 5spd manl, pl, pw, a/c, c/c, spoiler, pwr m/roof, grt cond, \$5,000 neg. 736-0562.

02 CHEVROLET SILVERADO – 58K mi. LS Crew Cab; Turbo diesel; A/T, HD tow pkg, CD/Cass, more, \$23,000 neg. 698-5762. 01 TOYOTA CAMRY XLE – 107K mi. Top of Line v/gd cond, all pwr, s/roof, Ithr int, 4 cyl, rem start, \$7,500 neg. Ext. 2838.

01 HYUNDIA ELANTRA – 40K mi. white, 4cyl, 4dr, a/t, ac, p/w, ws, am/fm cd, mint cond. \$6,500. Pam, 828-2762.

00 CHEVY BLAZER 3 DR 4WD – 83.5K mi. ZR2 Wide Stance Pkge, a/t, a/c, Rr Mnt Tire, Rec. inspctn. \$4,300 neg. 457-3290. 98 HONDA CIVIC DX 4D – 116K mi. New timg belt, brakes, tires, muffler, man.transm, some dings. \$2,500 neg. Ext. 3594.

94 JEEP GRAND CHEROKEE LIMITED – 121K mi. loaded, wd, tow pkg, grt offroad/beach/snow. \$3,000. Ext. 3116. CAR TRAILER – Vintge Millen. Outlaw 24'

CAR TRAILER – Vintge Millen. Outlaw 24' dual axel. Beaver tail 4' crbside dr/4' strt side dr. Elec winch. \$5,500. 698-5762.

Furnishings & Appliances

DINING ROOM SET – Ig Colonial, seats 8, incl hutch, dark pine, grt cond, pic/dimensions avail, \$375. Ext. 3750, 672-4141. DISHWASHER/SINK/HOODS – stainless d/w, Waste King, works \$50; st/less sink w/ faucet \$50; 2 range hds \$15/ea. Ext. 3116. REFRIGERATOR DORM SIZE – Haier 1.7 cu ft refrig/freezer, manual defrost, used for less than 1 week, \$40. 363-6289. SOFA – 84'l x 43'w; love seat 64''l x 43''w, \$400/both microfiber, gd cond. 384-7801.

Audio, Video & Computers

FUJIFILM – Finepix J20, black, like new/ just used once \$90 . Ext. 2172. YASHICA – 200-AF 35 mm Camera w/AF BNL had 43 participants and scored a total of 11 teams. The men's team of Drew Dillingham, Terry Sullivan, and Mike Mapes finished second out of 103 teams in their category with a combined time of 1:03:09. Drew Dillingham also placed third overall in the men's race with a time of 18:49. The mixed team of Dave Harder, Anthony Kuczewski, Betty Elder, and Caitlin Chapin finished sixth out of 53 teams in their category, with a combined time of 1:46:11. Thanks to all who participated, and — here's to next year!



Music, Dance: Memphis Soul Review, 9/11

Memphis Soul Review, a seven-piece band featuring local musician Bobby Nathan, will perform on Friday, September 11, at 8 p.m. in the Brookhaven Center. The band recreates Texas rock and blues, and also features rhythm and blues music by artists of the 1960s and 1970s. A professional dance instructor will be offering lessons. Sponsored by the BNL Music and Social and Cultural Clubs, the event is open to the public. Visitors to the Lab 16 and older must bring a photo I.D. Tickets are \$16 and may be purchased at the BERA Store, through *www.ticketweb.com*, or at the door. For information on the band, go to: *http://www.bobbynathan.com/*.

PICTURE FRAMES – Various sizes, 24 x 36 MAN to 8 x 11, gd cond/materials, some w/glass, renta

take some or all, make offer. Ext. 7114. SOUTHWEST AIRLINE VOUCHER – \$661 any flight by SW, must use by end Nov, ask/\$560, Ext. 4548, 874-8631. TRUNDLE BED – Trundle bed, no mattress \$10. John, Ext. 4028 or jbiemer@ optonline.net. VENDING MACHINE – Authentic/Vintage

One-Cent Gumball Vending Machine. \$50.00. Chris, 979-7043.

Happenings

AMAZEDNESS KITE FLY – To benefit the Amer. Cancer Soc. Bring your kite or buy/\$10! 9/20, 12-4 pm, Smith Pnt Beach. Ident-A-Kid, contests, raffles. 474-1213.

Farewell Gathering

NEDY SANTIAGO – Aug. 26, 5:30 pm, Desmond's Restaurant, Rte 25A, Wading River, \$40/pers. (includes buffet & gift), RSVP by Aug. 21. Linda Hanlon, Ext. 7517.

Free

BICYCLES – 10-in, pink, no training wheels. 14-in. & 18-in, blue. All gd cond. Ext. 2225. FERRETS – Peter Pan & Tinker Bell need a new and forever home. Grace, Ext. 3227. FREE KITTEN TO GOOD HOME – PLEASE adopt adorable solid grey shorthaired 2 1/2 mo. female. Had shots, dewormed. Very friendly. Ext. 2733, 475-7974. KITTENS – 4 mo old kittens to a loving home, 2 blk/wht & 1 tiger-striped, precious w/all shots/spayed/neutered. Ext. 2260. PANASONIC MICROWAVE - 1300 W; timed cooking is OK. 2 1/2 yrs old. Counter model - 20"L 15"W 11"H. Steven, Ext. 5694. MANORVILLE – 3 bdrm house, winter rental, furn, no smkg/pets, sec required, utils incl. \$1,000/mo. 831-4830.

MIDDLE ISLAND – 1 bdrm, I/r, full kit & bath, bsmt apt, priv. ent, no smkg/pet, int/tel incl, BNL only, 1 mo sec. \$800/mo. 672-2451. MIDDLE ISLAND – newly redec furn studio apt., for 1/person, util incl, nr Lab, no smkg/pets. \$750/mo. 516-205-6712. MILLER PLACE – furn. Col house in prof. resid. area, tv/int, cac, own bdrm, all incl, responsible non smkr. \$675/mo. 744-8386. MORICHES – 2bdm, 2ba., 1150 sq.ft. apt, to sublet Oct-Mar, renewable lease. Ir/dr/kitch. w/d in unit. \$1,600/mo, incl heat. 344-2356. PATCHOGUE – 2 bdm apt, 1 st flr, galley kit, Ir/dr combo, bath, OSE, no smkg/pets, single pref, 2 OK, avail 9/1. \$1,200/mo. Lisa, Ext. 7528, 289-6676.

PORT JEFFERSON – Sublet Nov-Dec; Sept-Oct possible, Ig studio, sep kit/bath, patio, walk to downtown Port Jeff/train sttn. \$1,095/mo. 413-6354, rcalaga@bnl.gov.

ROCKY POINT – 1 bdrm upper unit, kit, bath, l/r, balcy, quiet co-op comm, nr stores, Indry rm on prem, prkg spot, no smkg/pets, cac, incl. gas/water. \$1,150/mo. 806-5965. SHIRLEY – Irg 1 br bsmt apt., suitable for one, nr beaches/parks/freeways/lirr/ lab, all included. 1 month + 2 months, no smoking/pets. \$725/mo. Ext. 3846.

POSTDOCTORAL RESEARCH ASSOCIATE (Advanced Networking Technologies) - Requires a Ph.D. in computer science, computer engineering, applied mathematics or a related field. Should have a strong research background in advanced networking technologies and distributed file systems. Also should be highly skilled in programming (In C, Java, and Python) and in performance ADMINISTRATIVE SERVICES ASSISTANT (A-2), NSLS-II Business Operations - Reporting to the NSLS-II Business Operations Manager, will work independently to perform a range of administrative duties related to the NSLS-II project with varying degrees of complexity, which include, but are not limited to, assisting the department administrator with Electronic Time Reporting, process web requisitions, maintaining and updating existing web and/or SharePoint site(s) and report generation and maintenance in sup70-210 mm lens, Minolta Auto 320 flash, case and bag \$50/obo. Ext. 2172.

Sports, Hobbies & Pets

CANOE – 17'Coleman scanoe v/g condition, ask \$350. 960-2978. Dan, Ext. 4605. TRAMPOLINE – Lge outdoor circular unit. \$25. Ext. 2788.

Miscellaneous

29 GAL HIGH FISH TANK - w/hood. You pick up, \$35. Justin/Stan, Ext. 7325, 909-2642. ABS SEIZER - Body By Jake Abs seizer w/instructional DVD. \$50.00. 979-7043. COOPERSTOWN, NY - 4bd/2bth, 200 acres; 10 min to Town Cntr, Baseball Hall Fame, Dreams Pk, Iake, caverns, a/c, dsl, tv, 8/28-9/4, \$950. Ext. 3005 or rbuono@bnl.gov. FIREPLACE - double-sided insert, wood/ gas, glass drs/\$100. Karl, Ext. 3116. FIREWOOD - \$175 per cord, u-pic-up. Jamie, 512-6780 or jsims@bnl.gov. PICNIC TABLE & 2 BENCHES - Redwood. Gd qual, gd cond. \$50. Setauket. You pick up. Ext. 2752, 751-6571 or woody@bnl.gov.

For Rent

KISSIMMEE, FL – 3 bdrm condo fully furnished. 4 miles from Disneyworld. \$700/ wk. John, 732-2472 or bpyatt@bnl.gov. NAPLES, FL – 2br/2ba furn condo, golf, \$1200/mo until 12/31, Jan-March rate \$3250/mo/neg. \$1,200/mo. 523-7870. BOHEMIA, NY – Occupancy on/about Sept 5.2 bdrms, 1 bth, L/R, kit, D/R, W/D, garage. Connetquot SD. \$1,650/mo neg. 831-2843. CENTER MORICHES – 1 bdrm apt, just painted, full bath, dead end st, sep bldg. \$800/mo. George, 878-1178.

EAST PATCHOGUE – furn bdrm in 2br house, priv bath, use of kit, off st prkg, pics avail, no smkg/ pets, I do have dog/bird, \$600/mo neg. 289-2122, cmichael@bnl.gov. l/r, d/r, full kit & bath, a/c., util. incl. no smkg/ pets, pvt ent/drwy, use of bk/yd, single/couple only, 1 mo sec, \$1,100/mo. 375-7959.

SHOREHAM - Ig furn 1 bdm apt w/all ap

WADING RIVER – 1 bdm, 1 bath w/tub, kit., I/r, other sm. rm, fenced yard w/shed, nr beach, refs/sec. req'd. \$1,150/mo. 886-1545.

WADING RIVER – 2 bdrm., 1 ba, extra bdm & bath in fin. bsmt., w/d, gar. Ig. yard, pvt. beach commun, SWR schls, utils xtra., 2 mos sec. Avail. 9/15. \$1,850/mo. 886-1545.

WEST SAYVILLE – 1 bdrm immac bsmt apt, eik, I/r, fresh paint, w/d, a/c, cable/ int, priv ent, nr LIRR, shopping, no smkg/ pets. \$900/mo. 750-3835.

YAPHANK – fully furn studio apt for 1, hi spd int/all util incl. 5 min. to Lab, no smkg/ pets, avail 9/1. \$900/mo. 516-205-6712.

For Sale

MANORVILLE – 3 br, 2.5 ba t/house eik, dr, lr, pond view in gated comm, w/f/p, slate patio, 2-car gar, pergo flrs, ceiling fans, clubhouse, pools, tennis, gym. \$355,000 neg. Ext. 5046, 878-0286 or warburton@bnl.gov.

Bulletin

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