the Bulletin

BROOKHAVEN NATIONAL LABORATORY

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Thomas Roser Named C-AD Chair

Thomas Roser, a senior physicist who joined BNL in 1991, has been named chair of the Collider-Accelerator Department (C-AD), effective January 1, 2010. He replaces Derek Lowenstein, who served as C-AD chair for 27 years, and will continue to play key roles in the department.

With about 400 employees and an annual budget of $140 million, C-AD develops, improves and operates a suite of accelerators used for experiments by an international community of about 1,500 scientists. The department also designs and constructs new accelerators in support of the Lab's and national missions.

"I am grateful for Derek Lowenstein's leadership of C-AD, which has helped to make the department one of the premier institutions for accelerator science and technology in the world," Roser said. "I hope to build on his success as I look forward to exciting new challenges in the new decade."

Roger Stoutenburgh D2891208

Future challenges include an upgrade of the Relativistic Heavy Ion Collider (RHIC), BNL's world-class accelerator, where physicists have discovered a type of matter — known as quark-gluon plasma — that is believed to have existed just microseconds after the Big Bang. The upgraded accelerator will provide many more heavy ion collisions and allow physicists to study the quark-gluon plasma in greater detail. A future electron accelerator, added to the RHIC facility and called eRHIC, might make it possible to discover yet another new state of nuclear matter. Currently under construction and due to start operations in 2011 is an Energy Recovery Linac, which will be used for accelerator research and development of the high-intensity electron beams required for eRHIC.

Also part of the C-AD complex is the Booster accelerator, which supplies the ion beams for the NASA Space Radiation Laboratory (NSRL) at BNL, where scientists study the effects of simulated space radiation on biological and physical systems. The goal of this research is to develop methods and materials to reduce the risk of radiation damage to astronauts on prolonged space missions. Roser indicated that the facility might be expanded to allow research on the use of ions for cancer treatment, a therapy that is successfully being employed in Japan and Europe.

*See **Roser** on pg. 3*

American Chemical Society Awards Stanislaus Wong of BNL, SBU

Stanislaus S. Wong, a scientist with a joint appointment at BNL and Stony Brook University (SBU), has won the Buck-Whitney Award from the American Chemical Society (ACS) Eastern New York Section. The award recognizes excellent original contributions to pure and applied chemistry. Wong received the award at the ACS Eastern New York Section meeting in Albany on November 19.

"I enjoy exploring the chemistry of nanostructures – structures with dimensions measuring mere billionths of a meter – as these hold promise for numerous future applications, and I am gratified that my research has been recognized by my peers," Wong said.

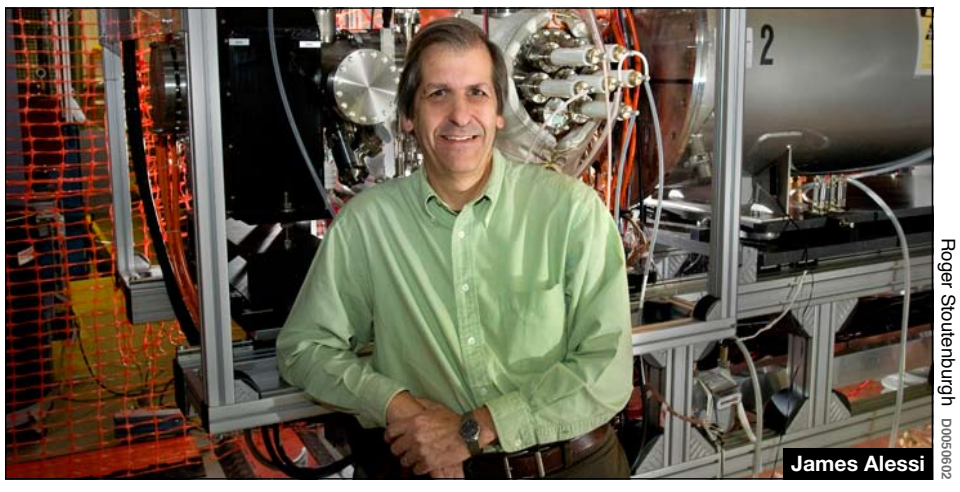
Wong studies carbon nanotubes as well as metal oxide nanostructures in order to gain a basic understanding of their synthesis and properties. In addition, he modifies the nanotubes using chemical strategies to make them suitable for various applications. Carbon nanotubes have a hollow cylindrical structure that is just a few nanometers thick, or about 1/50,000 the thickness of a human hair, and have potential applications in electronics, optics, and materials science. Nanotubes possess intrinsic advantages including high surface areas, structural flexibility, and high mechanical strength. In fact, they might be stiffer and stronger than potentially any other known material, which is key for the design of...

Roger Stoutenburgh D1271109

*See **Wong's ACS Award** on pg. 3*

Six BNLers Elected as American Physical Society Fellows

Six BNL scientists have been named Fellows of the American Physical Society (APS), a professional organization with more than 47,000 members. Election to APS Fellowship is limited to no more than one half of one percent of its membership in a given year, and election for this honor indicates recognition by scientific peers for outstanding contributions to physics. The citation and a brief summary of the contributions of each new Fellow, James Alessi, Charles Black, G. Lawrence Carr, Milind Diwan, Gregory Hall, and Thomas Ullrich, follows on pg. 2. For more detail, see *www.bnl.gov/bnlweb/pubaf/pr/PR_display.asp?prID=1057*.

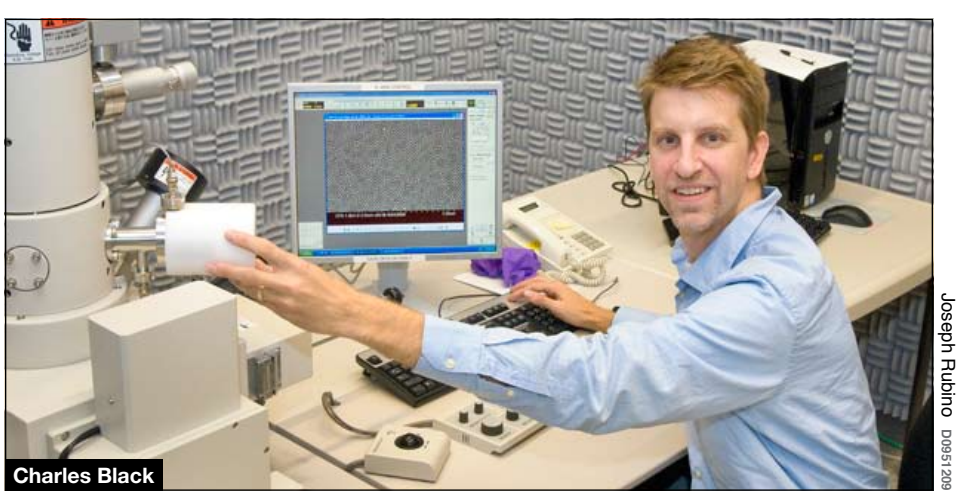


James Alessi

Roger Stoutenburgh D0050602

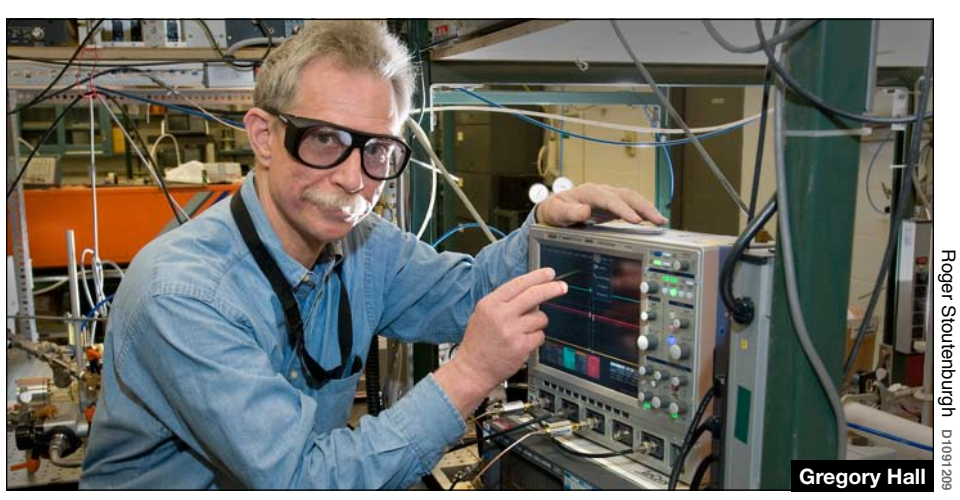
Milind Diwan

Roger Stoutenburgh D1651209



Charles Black

Joseph Rubino D0951209



Gregory Hall

Roger Stoutenburgh D1091209

G. Lawrence Carr

Joseph Rubino D1321209

Thomas Ullrich

Roger Stoutenburgh D0050602

Calendar
of Laboratory Events

- *The BERA Store in Berkner Hall 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 may be found at www.bnl.gov/hospitality/calendar.asp.*
- *The Recreation Building #317 (Rec. Hall) is located in the apartment area.*
- *Events flagged with an asterisk (*) have an accompanying story in this week's Bulletin.*

— REGULARLY —

Weekdays: Free English for Speakers Of Other Languages Classes
Beginner, Intermed., Adv. classes, various times. All welcome. Learn English, make friends. See *http://www.bnl.gov/esol/schedule.asp* 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 & Thursdays: Kickboxing
$5 per class. Noon–1 p.m. in the gym. Pay as you go. Ext. 2873.

Mon., Tues., Thurs., & Fri.: Tai Chi
Noon–1 p.m., B'haven Cntr N. Rm. Adam Rusek, Ext. 5830, *rusek@bnl.gov*.

Tuesdays: Zumba
Tuesdays, 12:15–1:15 p.m. Gym. Registration is required. Ext. 2873.

Tuesdays: Knitting Class
2–4 p.m. Rec. Hall. All levels of skill. Free. Ext. 5090 for information.

Tuesdays: Toastmasters
Two monthly meetings: 1st & 3rd Tuesdays, 5:30 p.m., Bldg. 463, Rm 160. Guests and visitors welcome. *http://www.bnl.gov/bera/activities/toastmstrs/*.

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

Tuesday & Thursday: Aqua Aerobics
5:30–6:30 p.m., Pool. Registration is required. Ext. 2873.

Wednesdays: On-Site Play Group
10 a.m.–noon. Apartment area playground. Infant/toddler drop-in event. Parents meet while children play. Ext. 2873.

Wednesdays: Ballroom Dance Class
Classes at 5:15, 6:15, and 7:15 p.m., based on experience. North Ballroom, B'haven Center. Donna Grabowski, Ext. 2720.

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

1st Wednesday of month: LabVIEW
1:30–3 p.m., Bldg. 515, 2nd fl. Seminar Rm. Free technical assistance from LabVIEW consultants. Ext. 5304, or Terry Stratoudakis, (347) 228-7379.

Thursdays: BNL Cycletrons Club
5 p.m., Brookhaven Center. First Thurs. of month. Tim Devine, Ext. 2350.

Thursdays: Reiki Healing Class
Noon–1 p.m., Call for location. Nicole Bernholc, Ext. 2027.

Fridays: BNL Social & Cultural Club
Noon–1 p.m., B'haven Center, S. Room, free beginners dance lessons. 7-11:30 p.m. N. Ballroom, Dance Social, workshops. Rudy Alforque, Ext. 4733, *alforque@bnl.gov*.

Fridays: Family Swim Night
5–8 p.m. BNL Pool. $5 per family. Ext. 2873.

Fridays: Family Gym Night
5–8 p.m. Family gym activities. Free. Ext. 2873.

Arrivals & Departures

— Arrivals —
Stoyan Bliznakov.....Chemistry
— Departures —
Kathryn Warburton ..... NSLS

TIAA-CREF One-on-One Retirement Counseling

A TIAA-CREF consultant will visit BNL on Thursday and Friday, January 21 and 22; Tuesday and Thursday, February 2 and 4, to answer employees' questions about their finances. The consultant will help you: understand the importance of protecting your assets against inflation, find the right allocation mix, learn about TIAA-CREF retirement income flexibility, and compare lifetime income vs. cash withdrawal options. For an appointment, call 1-800-732-8353 or visit *www.tiaa-cref.org/bnl* and select "Set up a Meeting" located on the bottom tab of the page.

Ward Melville Senior Wins Siemens Competition Top Prize

Research Done at SBU and NY Blue at BNL


Ruoyi Jiang

Ruoyi Jiang, a senior at Ward Melville High School in East Setauket was named the individual Grand Prize winner in the nationwide 2009 Siemens Competition in Math, Science & Technology on December 8, 2009, and will receive a $100,000 scholarship for his research on chemotherapy drug resistance.

Jiang conducted his research at Stony Brook University (SBU) and BNL under the mentorship of Carlos Simmerling, a professor of chemistry at SBU and guest scientist at BNL. Jiang was also supported by his advisor at Ward Melville, George Baldo, director of the InSTAR program there.

"This is an incredible accomplishment," said SBU President Samuel L. Stanley, Jr. "For a high school senior to dig this deeply into such a complex problem, and present it in such acute detail, well, he will be an asset to any institution lucky enough to have him. My congratulations to all at Stony Brook and Brookhaven National Lab who supported Ruoyi in his research process."

Working as part of Simmerling's team, Jiang won for a project entitled "Targeting Loop Dynamics in BetaI / BetaIII Isotype Tubulin: The Application of In Silico Techniques in Combating Chemotherapy Drug Resistance." Jiang evaluated drugs that prevent cancer cells from developing resistance to chemotherapy. Jiang's success also relied on his ability to learn to use New York Blue, the IBM supercomputer owned by SBU and operated by BNL, which is among the 50 fastest computers in the world. His research was sponsored by the Academy of Applied Scientists and used computational resources at the New York Center for Computational Sciences at BNL.

"The significance of this study was that through computational methods we were able to provide detailed insights into an extremely complex mechanism of chemotherapy drug resistance," Jiang said in his project presentation. "We were also able to provide insight into the means by which a newly discovered drug is able to overcome this drug resistance mechanism. Based on this it is possible to design drugs that are even more effective and can overcome this form of resistance in clinical studies."

Simmerling said the project involved an understanding of the complex cancer drug Taxol and an extremely complicated mechanism of drug resistance. The research required Jiang to have an understanding of organic chemistry, physics and molecular biology, as well as to be able to use the New York Blue...

*See **HS Student** on pg. 3*

In Memoriam: Robert 'Bob' Best


Joseph Rubino D2010906

Robert "Bob" Best, a technical associate II in the National Synchrotron Light Source (NSLS) Electrical Support Group, died on December 2, 2009. He was 53.

Remembered by colleagues as extremely witty and an independent and hard worker, Best first joined the NSLS as a guest electrical technician on March 25, 1983. He was hired on June 20, 1984, as a principal technician. Before celebrating his 25th year at Brookhaven in 2009, he was promoted to technical specialist in April 1987, to senior technical specialist in October 1991, and to technical associate II in October 1998.

"Bob made people laugh even during the most inappropriate times," said John Gallagher, his supervisor for more than 20 years. "When he first met somebody, he didn't usually embrace them very quickly. But once he did, he would do anything for them."

At the NSLS, Best became a specialist in the machine's interlocks system, a safety feature that prevents anyone from being in an area with hazardous radiation and automatically turns off the radiation source if a person somehow gets in.

"Bob was our interlocks guy," Gallagher said. "He had a wealth of accumulated knowledge on the interlocks system, and I often deferred to him when we needed to solve a problem."

Added Gallagher, "He was very valuable for off-hour callins. You could be assured that once Bob arrived on the scene, he would resolve the problem quickly and operations would begin again."

During lunch breaks, Bob could often be found playing "very vocal" and sometimes "volatile" games of Hearts with his coworkers.

"He was very competitive," Gallagher said. "He hated to lose, and I loved to beat him when I could."

Although he struggled with heart complications, Best did not let physical limitations get in the way of how he wanted to live his life, said Wayne Rambo, the head of the NSLS Electrical Support Group. He loved to fish, often making trips out to Montauk and other parts of eastern Long Island in search of a good catch.

A resident of Center Moriches, Best is survived by his wife, Donna Best; his sister, Robin Barton; and his parents, Frances and Ordel Best.

— Kendra Snyder

Six BNLers Named APS Fellows

(continued from pg. 1)

James Alessi

"For his many groundbreaking contributions to the development of intense negatively charged hydrogen (H-) beam sources, both unpolarized and spin-polarized, and the development of a high intensity Electron Beam Ion Source for the production of beams of high charge state heavy ions."

Alessi develops ion sources to generate beams of particles used in various accelerators at Brookhaven, including the world-class nuclear physics accelerator, the Relativistic Heavy Ion Collider (RHIC). At RHIC, physicists from around the world study extremely hot, dense matter that is thought to have existed a few millionths of a second after the Big Bang. A new Electron Beam Ion Source now being commissioned will generate heavy ion beams for both the NASA Space Radiation Laboratory at Brookhaven, where researchers assess the effects of high-energy charged particles on biological systems, materials, and instruments in an effort to understand the potential risks of exposure to space radiation, and RHIC. Alessi also developed high-intensity ion sources, such as that used for the Brookhaven Linac Isotope Producer, which makes short-lived radioisotopes that are used as diagnostic, research and calibration agents in hospitals and research institutions.

Charles Black

"For pioneering contributions to the integration of nanometer-scale polymer self-assembly in the fabrication of high-performance semiconductor microelectronic devices."

During his career at IBM, Black pioneered the use of self-assembly in nanotechnology to fabricate high-performance semiconductor devices used in microelectronics. Self-assembly is the spontaneous organization of materials into regular patterns. Under controlled conditions, certain materials will self-organize into patterns on the scale of tens of nanometers with dimensions and uniformity unattainable by conventional means. After joining BNL in 2006, in his current research at the Lab's Center for Functional Nanomaterials (CFN), Black is designing and applying self-assembly approaches to build nanostructured solar cells from low-cost polymer and nanocrystal materials.

G. Lawrence Carr

"For applications of synchrotron and terahertz radiation to condensed-matter systems."

At BNL's National Synchrotron Light Source (NSLS), scientists use light that spans a very wide range of energies along the electromagnetic spectrum, from x-rays to microwaves, to study materials as diverse as computer chips and viruses. The spectral range of light between infrared and microwaves is known as terahertz, which describes the light's frequency. Carr's research at the NSLS has demonstrated the importance of terahertz frequencies in studying the electronic behavior of materials such as semiconductors and superconductors.

Milind Diwan

"For his contributions to neutrino and kaon physics."

Diwan studies neutrinos, unusual particles that can pass through anything in their path. Neutrinos have intrigued scientists around the world, including BNL chemist Raymond Davis, Jr., who won the Nobel Prize in Physics in 2002 for detecting neutrinos originating in the sun. In particular, Diwan is trying to determine if neutrinos play a part in the asymmetry of matter and antimatter in the universe, a puzzle that has confounded physicists for decades.

Diwan also studies heavy subatomic particles called kaons at the Lab's Alternating Gradient Synchrotron. Kaons spontaneously break down, or decay, in various ways, some of them occurring as infrequently as one in ten billion particle interactions. If these rare kaon decays occur significantly more often than predicted by the Standard Model, the modern physics theory of elementary particles, then new physics will have been discovered.

Gregory Hall

"For innovative applications of high resolution molecular spectroscopy to photodissociation dynamics, energy transfer and bimolecular reactions."

Hall works with lasers to understand how molecules collide, exchange energy, react, and break apart. He and his colleagues have developed and applied experimental techniques using very sensitively controlled laser light to measure the flow of energy inside a molecule as it breaks apart. Using this light, he can also measure velocities of molecules, the orientation of rotating molecules, and molecular collisions that lead to chemical reactions or energy transfer between molecules. This information provides a basis for testing theories used in computer models of combustion, which are used, for instance, by combustion engineers to design fuel-efficient and environmentally friendly combustion devices.

Thomas Ullrich

"For his leading contributions to the study of electrons, and hadrons containing charm and bottom quarks in relativistic heavy ion collisions."

Measurements from RHIC experiments have revealed compelling evidence for a new state of nuclear matter created at the extremely high densities and temperatures achieved in heavy ion collisions. This type of matter is believed to have existed just microseconds after the Big Bang. By studying electrons and charm and bottom quarks produced at RHIC, Ullrich has found intriguing hints about the properties of the dense matter created in these collisions.

— Diane Greenberg

Stony Brook Students Win Computing Challenge

Students supported by SBU and BNL's New York Center for Computational Science

A team of Stony Brook University (SBU) undergraduates who received support from the New York Center for Computational Sciences (NYCCS), a joint venture of SBU and BNL, won a high-performance computing challenge at the top supercomputing conference, SC09. The event was held November 14-20 in Portland, Oregon, and was attended by more than 11,000 people.

"This is a big deal for us — all the DOE Labs are represented and it's a chance to show off what we've done in the past year in computational science," said Jim Davenport, director of the Computational Science Center (CSC) at BNL.

This year's Student Cluster Competition emphasized energy efficiency and low power consumption. The teams, limited to high school and undergraduate students, were judged on how well their systems performed under a comprehensive "stress test" and how quickly they could complete a series of demanding computing applications.

The winning team at the SC09 computing contest (from right): Professor Jim Jiao, Aaron Pellman-Isaacs, Anthony Biondo, William Chan, Xincheng Zhang, Jan Kasiak, and Yuwei Gui, with Guy Ludden of Advanced Micro Devices.

The winning team — Aaron Pellman-Isaacs, Anthony Biondo, William Chan, Yuwei Gui, Jan Kasiak, and Xincheng Zhang — was supervised by professor Jim Jiao of SBU's Department of Applied Mathematics & Statistics.

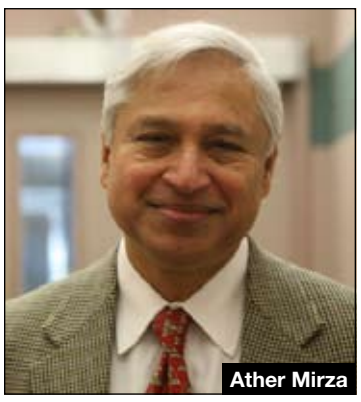
The SBU team was sponsored by Dell, Advanced Micro Devices (AMD), and Mellanox. along with the NYCCS. James Glimm, SBU professor and chair of Applied Mathematics & Statistics and CSC head of applied mathematics at BNL, aided the team's negotiations with Dell and AMD for hardware, recruited the students, and helped train them.

BNL and SBU formed the NYCCS in 2007 to develop high-performance computing on a range of topics in science and technology. The mission of NYCCS is to advance scientific discovery in areas related to the goals of its partner institutions, and further the broader scientific agenda and economic development of New York State in general.

See also *www.bnl.gov/today/story.asp?ITEM_NO=1546*.

Talk: Carpal Tunnel Syndrome, 1/26

All are invited to attend a presentation on Tuesday, January 26, at noon in Berkner Hall, featuring Ather Mirza, an orthopedist and hand surgeon who has patented six surgical procedures. During his talk, Mirza will discuss various endoscopic surgical techniques as well as how to diagnose carpal tunnel and cubital tunnel syndromes. Mirza has been chosen as one of the "Best Doctors in New York State" by *New York Magazine* and was recently featured on the Discovery Channel for his endoscopic carpal tunnel release technique, a procedure he has performed more than 1,800 times.



Ather Mirza

Standard Freshman Composition: Core SCCC Course Offered on Site

Suffolk County Community College (SCCC) will offer the following course on site for the spring 2010 semester. This is a core course for most SCCC degrees.

ENG101 – Standard Freshman Composition

Explores principles of rhetoric and stresses effective expository writing. Primarily a course in organization of ideas and development of these ideas through use of specific information. Also deals with matters of style, sentence structure, paragraph development, punctuation and vocabulary. 3 credit hours.

Employees who take college courses may apply for tuition assistance. BNL offers tuition advances or reimbursements at 75 percent for undergraduate courses. For more information, contact Starr Munson, *munson@bnl.gov* or Ext. 7631.

Defensive Driving Course: Two Parts, 1/25 & 28

The next six-hour Defensive Driving (Point & Insurance Reduction) course will be held in two parts on Monday and Thursday, January 25 and 28, in the Brookhaven Center South Room, 6-9:15 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. Or take a New York DMV approved course (Use code: "SAVE10" for $10 discount) online: *http://www.lidrivesafe.com/*.

Fidelity One-on-One Counseling On Site

A Fidelity representative will be in Bldg. 400B in the Human Resources & Occupational Medicine Division on Friday, February 5 and Friday, March 12, to answer employees' questions about their financial matters. The financial consultant will help you with Fidelity fund choices, finding the right allocation mix, or retirement and financial counseling. For an approximately half-hour appointment, call 1-800-642-7131 (Monday-Friday; 8 a.m.–midnight EST) or go to *www.fidelity.com/atwork/reservations*.

***Wong's ACS Award** from pg. 1*

...high-performance composite materials. Moreover, their structure — for example, the way in which these tubes are rolled up — determines whether they are semiconducting or metallic. It is not surprising, therefore, that nanotubes are thought to have a host of wide-ranging, potential applications, including their use as catalyst supports, field emitters for flat panel displays, high strength engineering fibers in bulletproof clothing, sensors, gas storage media, and as molecular wires for the next generation of electronics devices such as transistors.

Wong also creates metal oxide and fluoride nanostructures of predictable size, chemical composition, and shape using benign, green techniques. Specifically, he has generated pure spherical particles, cubes, arrays, aggregates, and three-dimensional assemblies, as well as one-dimensional tubes and wires in order to understand how their characteristics change with these controlled modifications in structure.

Metal oxides, in particular, represent one of the most diverse classes of materials, with important structure-related properties, including superconductivity, ferroelectricity, magnetism, conductivity, and gas-sensing capabilities. Applications include catalysts, chemical and optical sensors, fillers, coatings, energy storage media, fuel cells, power generation, and solar cells as well as environmental remediation and sensing. In his research over the years, Wong has worked closely with innumerable colleagues at BNL and has used two of the Lab's world-class facilities: the Center for Functional Nanomaterials and the National Synchrotron Light Source.

Stanislaus S. Wong earned a B.Sc. in chemistry from McGill University in 1994 and a Ph.D. in chemistry from Harvard University in 1999. He was a postdoctoral fellow at Columbia University before simultaneously joining SBU in 2000 as an Assistant Professor in the Chemistry Department and BNL as a scientific staff member in the Materials Sciences Division. In 2006, he was promoted to Associate Professor, the position he still maintains. Currently, he works in the Lab's Condensed Matter Physics & Materials Science Department.

Wong has been honored with numerous awards, including the 3M Nontenured Faculty Award, the National Science Foundation's CAREER Award, and an Alfred P. Sloan Foundation Research Fellowship. — Diane Greenberg

***Roser** from pg. 1*

The LINAC, a linear accelerator that supplies beams of polarized protons for RHIC, also provides high intensity proton beams for the production of medical isotopes at the BNL Linac Isotope Producer facility. The isotopes are used for medical imaging, cancer treatment, and research at hospitals and medical centers around the world. Roser said this facility might also be expanded or replaced within the next several years.

The Tandem Van de Graaff electrostatic accelerators provide ions for the RHIC accelerator injector chain and for the NSRL facility. In 2011, this function will be taken over by the more efficient Electron Beam Ion Source, a preinjector system designed by C-AD. The Tandem accelerators also supply ions for radiation testing of electronic components and manufacturing of industrial materials.

Roser earned a Ph.D. in physics from the Swiss Federal Institute of Technology in Zurich in 1984. He became a research fellow at the University of Michigan in the same year and was appointed assistant professor of physics at the university in 1990. He joined BNL as an associate physicist in 1991, and, in 1994, he became the head of the Accelerator Division for the Lab's Alternating Gradient Synchrotron Department, which later became C-AD. In 1999, he was promoted to senior physicist with tenure, and he became the accelerator division head at C-AD, in charge of commissioning RHIC. In addition, he was appointed associate chair for accelerators in 2002.

Roser is a fellow of the American Association for the Advancement of Science, the American Physical Society, and the IEEE. He was honored with BNL's Sambamurti Memorial Lectureship Award in 1994, the BNL Science & Technology Award in 2000, and the Nuclear & Plasma Sciences Society/IEEE Particle Accelerator Science & Technology Award in 2005. He has served on numerous advisory committees, and he is currently chair of both the CERN Machine Advisory Committee and the Organizing Committee of the Particle Accelerator Conferences. — Diane Greenberg

...supercomputer at BNL, he said.

"I actually tried to talk him out of his project a few times. I kept telling him it was too complicated," said Simmerling, who worked with Jiang for two years. "Nobody has ever gone all the way from quantum physics to the biology in one experiment. His project had the range we expect in a Ph.D. thesis."

Jiang hopes to become a research lab director upon completion of his studies. In addition, he spends his free time doing volunteer work at SBU Hospital. He enjoys playing the violin and tennis and loves to draw. He also speaks fluent Mandarin.

CALENDAR

— WEEK OF 1/18 —

Monday, 1/18

Martin Luther King, Jr. Day
Floating Holiday: Lab Closed
No Bulletin on Friday, 1/22.

Saturday, 1/23

***Gathering of the Slides Concert**
8 p.m. Berkner Hall. Eighth annual slides blues concert, back by popular request, featuring the Kerry Kearney Band, with Kane Daily, TaleWaGon, and Lonesome Dan and the Curmudgeons. Open to the public. For more information and ticket price, see page 4. All visitors to the Lab of 16 and over must carry a photo ID.

— WEEK OF 1/25 —

Monday, 1/25

***Defensive Driving, Part I of II**
6-9:15 p.m. Brookhaven Center South Room. See notice, left.

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

Tuesday, 1/26

Talk on Carpel Tunnel, More
Noon. Berkner Hall. Surgeon Ather Mira will discuss ways to diagnose and surgical techniques for carpal tunnel and other syndromes. All are welcome to this free talk. See notice at left.

Thursday, 1/28

Sam's Club
11:a.m.-1:30 p.m. Berkner Hall lobby. Representatives from Sam's Club warehouse retail chain will give $10 gift certificates to all who join or renew membership. Contact Mireya Lombardo, 447-0227.

***Defensive Driving, Part II of II**
6-9:15 p.m. Brookhaven Center South Room. See notice, at left.

BERA Updates

Tickets for any trip or event can be purchased Monday through Friday from 9 a.m. until 3 p.m. at the BERA Store in Berkner Hall, Bldg. 488. For more information, go to www.bnl.gov/bera.

2010 Virtual Swim: Join this year's "virtual swim" in memory of Pavel Rehak, an original member of the BNL Swim Club. This year's swim of the European 1,771-mile-long Danube River begins January 4. Sign up at the pool.

Fitness Classes: Zumba, Aqua Aerobics, kick boxing, aerobics, and ballroom dancing

Trip to the American Museum of Natural History: Saturday, February 27. Includes transportation, general admission, and *Journey to the Stars*, a planetarium movie show. $25 per adult and $18 per child (ages 12 and younger).

American Red Cross Lifeguard Training: Participants must pass a mandatory pre-test on Saturday, January 23, or Sunday, January 24. Call 921-6218 for more information.

Family Time at the Gym and Pool: Fridays from 5–9 p.m. in the gym (no charge) and 5–8:30 p.m. at the pool ($5 per family).

All recreation facilities will be closed January 16–18 in observance of Martin Luther King Jr. Day.

Classified Advertisements

To apply for a position, go to *www.bnl.gov*. Select "Job Opportunities," then "Search Job List."

OPEN RECRUITMENT – Opportunities for Lab employees and outside candidates.

POSTDOCTORAL RESEARCH ASSOCIATE (Theoretical or Experimental Particle and High Energy Physics) – Requires a Ph.D. in high energy physics or nuclear physics. Experience in theoretical or experimental particle and high energy nuclear physics and solid knowledge in computing and process modeling are highly desirable. Will work on the realization of an e+A physics event generator for a future Electron Ion Collider (EIC). The anticipated result of this project is a state-of-the-art e+A event generator that simulates the majority of proposed measurements at an EIC including the conjectured phenomena one hopes to observe (e.g. saturation). Will be expected to guide the effort. Good communication skills are required in order to build an international effort around this project. Under the direction of T. Ullrich, Physics Department. Apply to Job ID #15168. *See NOTE.

POSTDOCTORAL RESEARCH ASSOCIATE (Electrochemistry) – Requires a Ph.D. in chemistry, materials science, or a related field with a background in electrochemistry. Demonstrated experience of mechanistic and kinetics studies using electrochemical techniques is also required. Experience in synthesis and characterization of nanostructured materials and/or transition metal complexes, *in situ* synchrotron radiation based techniques (XANES, EXAFS, XRD), electrochemical reactor design, IR spectroscopy is desired. The research program will comprise the tasks from the LDRD project "Photoelectrochemical Fuel Generation from Water and Carbon Dioxide." The tasks will involve synthesis and characterization of molecular catalysts immobilized on electrode surfaces and nanostructured materials catalysts for solar H_2 generation, CO_2 reduction, and syngas production. The program will pursue fundamental mechanistic and kinetics studies of the reactions on new catalysts using various in situ experimental methods such as electrochemical (RDE), spectroscopic (IR), and synchrotron radiation based (XAS, XRD) techniques. Under the direction of J. Muckerman and K. Sasaki, Chemistry Department. Apply to Job ID #15169. *See NOTE.

POSTDOCTORAL RESEARCH ASSOCIATE (Lithium Batteries) - Requires a Ph.D. in materials science, physics, electrochemistry, chemical engineering, or chemistry and two years' working experience in lithium battery research field. Experience in using synchrotron based x-ray diffraction and absorption techniques to study lithium battery materials. Knowledge of operating beamline facilities to do data acquisition and analysis. Ability to design new synchrotron based experiments for lithium battery research. Transmission Electron Microscopy (TEM) studies for lithium battery materials. Cyclic voltammetry (CV) on electrolyte studies for lithium batteries. Good writing and oral communications skills for publications and presentations. The research programs that the research associate will be assigned at BNL is to use a combination of *in situ* x-ray diffraction (XRD) and x-ray absorption spectroscopy (XAS) at National Synchrotron Light Source (NSLS) to study the cathode and anode materials for energy storage devices such as lithium ion batteries and supercapacitors. Under the direction of X-Q Yang, Chemistry Department. Apply to Job ID #15170. *See NOTE.

ASSISTANT SCIENTIST (S-1) Basic Energy Science - Requires a Ph.D. in physics or engineering and at least six years of experience in surface science techniques such as plasma-based reaction chambers, x-ray photoemission spectroscopy, Auger emission spectroscopy, electron microscopy and at least 4 years experience of growing and characterizing thin oxide films under clean conditions. Requires a total of at least six years of experience working in a clean room environment suitable for semiconductor processing. At least four years' experience with synchrotron-based techniques preferred. Will build on previous development of a new planar technology for the production of pixilated x-ray detectors based on germanium. Will also perform process development and optimization of ion implantation regimes, growth of stable insulating oxide films on germanium at low temperature and development of stable metal contacts to the active regions of the detectors. Under direction of Dr. Peter Siddons, Beamline Controls and Detector Development Section Head. Apply to Job ID #15135.

SR. PROJECT CRYOGENICS ENGINEER (P-10, reposting) - Requires a bachelor's or master's degree preferred in an engineering discipline or closely related field of study and a minimum of 15 years of progressively responsible work experience with cryogenic equipment for superconducting applications and knowledge of cryogenic and pressure safety standards, piping, and pressure vessel design, vacuum systems, and instrumentation and control systems. Outstanding achievements in project engineering leadership in the design and construction of large-scale cryogenic projects, preferably for particle accelerators, and demonstrated application of advanced project management techniques or certification as a Project Management Professional (PMP) is required. Extensive experience in engineering analysis techniques and the use of Finite Element Analysis (FEA) tools such as ANSYS, CAEPIPE, Sinda/Fluint, or equivalent software packages is required. Experience with 3-D modeling software such as Inventor or ProE is a plus. Requires excellent written and verbal communication skills, good interpersonal skills, and office computer skills. Will lead the cryogenic engineering team within the Collider-Accelerator Department (C-AD) Cryogenic Group in efforts to improve Relativistic Heavy Ion Collider (RHIC) system performance and reliability and the design, development, installation, and commissioning of new systems to support superconducting RF development with C-AD. Responsibilities will include project management, overall system engineering, equipment specification and procurement, and leading the cryogenic engineering team to deliver projects within the constraints of schedule, budget, and scope. The C-AD Cryogenics Group is responsible for the operation and upgrade of the 12 KW RHIC superconducting magnet cryogenic system, the Energy Recovery Linac and SCRF test facility cryogenic systems, and other existing and planned systems for the complex. ERAP Eligible $1000. Apply to Job ID#4106.

SR. TECHNICAL SPECIALIST– SURVEY & ALIGNMENT (T-3) - The NSLS-II Mechanical Engineering Group is seeking a highly skilled technician to carry out complex assignments regarding the precision alignment of girder-magnet assemblies using laser-tracker-based survey and alignment equipment. Will also assist in the development of the primary and secondary survey networks for the NSLS-II facility. Requires an AAS degree in electro/mechanical technology or equivalent capabilities, a minimum of six years of survey experience, strong background and demonstrated competence in the use of modern survey tools such as: laser trackers, mekometers, and optical tooling as well as data analysis, a high degree of initiative and judgment, and the ability to plan, coordinate and perform technical assignments under general direction. Previous experience in an accelerator or a light-source facility and working knowledge of PC software such as Autocad, Inventor, Word and Excel is highly desirable. Reports to the Group Leader, Mechanical Engineering. National Synchrotron Light Source II. ERAP eligible - $500. Apply to Job ID #15166.

TECHNICAL SPECIALIST– MECHANICAL VACUUM SYSTEMS (T-2) - The NSLS-II Vacuum Group is seeking a skilled mechanical technician to carry out complex assignments regarding the fabrication, assembly and precision measurement of hardware, as well as measurement, troubleshooting, repair and maintenance of vacuum components and systems for the Vacuum Group. Requires an AAS degree in electro/mechanical technology or equivalent capabilities, minimum of four years' experience in the fabrication, assembly and testing of electro-mechanical equipment, experience in the use of hand tools, a working knowledge of machine shop processes, the ability to work from drawings, schematics and verbal instructions. Must be self motivated, able to work with minimum supervision, and have good communication skills. Proficiency PC software such as Microsoft Excel, electronics experience, and experience in the assembly and operation of High Vacuum equipment is highly desirable. Reports to the Technical Supervisor, Vacuum Systems. National Synchrotron Light Source II. ERAP eligible - $500.Apply to Job ID #15167.

SR. TECHNICIAN (TW-3, reposting) - Requires an associate's degree in a technical field or equivalent relevant experience plus demonstrated experience in the use of hand tools, power tools, and mechanical measuring equipment, such as micrometers, calipers, and height gauges. Must have the ability to work alone or in a group from verbal instructions and/or written procedures. Familiarity with machine shop equipment is preferred. The use of forklifts, overhead cranes, and other material handling equipment will be an important part of this job after proper training is completed. A knowledge of basic wiring and soldering is also preferred. Responsibilities will include fabricating, assembly, testing, and operation of mechanical machines and tooling that is used to build superconducting magnets and their components. Superconducting Magnet Division. Apply to Job ID #15030.

WRITER, INTERNAL COMMUNICATIONS/ Sr. Public Affairs Representative (A-6) – Requires a bachelor's degree in journalism, communications, public relations or a related field and a minimum of four, preferably six, years of progressively responsible related work experience writing for multiple audiences in a fast-paced environment. Ability to write for traditional and new media, as well as print and web-based publications is essential. Under general direction provides advanced writing and editing expertise on the production of print, broadcast and online communications targeted to the Lab's internal stakeholders, including employees, retirees, facility users, visitors and guests. Reporting to the Manager, Internal Communications, will support the implementation of communications plans and activities to provide information and engage internal audiences regarding the Lab's strategic and annual plans and its improvement agenda, major Lab programs and initiatives, and issues of interest or concern to internal audiences. Will develop with the help of subject matter experts materials for managers and supervisors to use in their organizations to ensure consistency of messages and engagement with internal publics across the Lab. Community, Education, Government & Public Affairs. Apply to Job ID #15174.

*NOTE: BNL policy states that Research Associate appointments may be made to those who have received their doctoral degrees within the past five years.

Motor Vehicles & Supplies

00 HYUNDAI ELANTRA GLS – 130K mi. a/t, 4cyl, 4dr, cd, c/c, p/w, a/c, no accid. recrd, new rad. $1,900 neg. 344-4398.

00 FORD EXPLORER – 110K mi. V-8, AWD, excel. cond. $4,950 neg. Chris, 831-3469.

97 FORD CROWN VICTORIA LX – 23.281K mi. orig owner, all pwr, clim. contr, gar, anti-lck brkes, excel. $3,995 neg. 732-1899.

94 BUICK PARK AVE. – 105K mi. new parts: tires, brakes, etc, gar, v/gd cond, rec. inspctd, call for pics. $2,800 neg. 603-6285.

93 NISSAN ALTIMA – 136K mi. v/gd/cond. $900 neg. Anne, aschroed@bnl.gov.

CUSTOM MATS – Cabella, Chevy Trailblazer, front/rear/cargo, pd $300 sell/$75. Stephen, Ext. 4482, 924-3678.

Furnishings & Appliances

55" TOSHIBA REAR PROJCTN TV – PIP pic in pic, 60"h 48"w 18"d, cabinet, on rollers, 3 remotes, orig papers. Ke. 516-768-5615.

COFFEE/END TABLE PAIR – rect/wood frame glass tops/$75; SS d/w $50; range hood/$15; f/p $100. Karl, Ext. 3116.

ENTERTAINM'T CABINET – lg, wood, for TV, stereo sys, tapes, gd cond, u-pic-up, photos, ask/$50. Ext. 2815, mcgrath@bnl.gov.

FIRE ENGINE TODDLER BEDS – 2, gd cond, $100/both, incl mattresses, will consider selling indiv. Ext. 2055 or fite@bnl.gov.

FURNISHINGS – Love seat, antique dining suite/chairs/ hall tree/book cases, 20.5 and 36"w, 4'h. 321-0010.

GLASS PICNIC TABLE – w/6 chairs, $75. Joseph, 603-6285.

METAL BUNK BED – twin over full metal bunk bed, red, $350/neg; pic avail upon request. ah_sa73@yahoo.com.

Audio, Video & Computers

RCA TV – 52" prjction tv, 2.5 yrs old, excel cond, RCA model #R52WH76, ask/$500, too lg for us, u-pic-up. Ext. 7216, 445-4027.

Sports, Hobbies & Pets

BOWFLEX MOTIVATOR – w/lat pulldown & leg extensn, excel cond, $450. 902-5453.

BOWFLEX POWER PRO – v/gd cond, 300lbs pwr rods, capac 400lbs, folds to fit lg closet, pic, $100/firm. Fred, Ext. 2323.

ENGLISH RIDING SADDLES – 2, top quality, call for details & photos. Yvette, Ext. 5591 or malavet@bnl.gov.

INVERSION TABLE – new, just assembled, $199/new, 50% sale/$100, will sell for $80/firm. Stephen, Ext. 2575 or jao@bnl.gov.

MARLIN MODEL 1895 – Caliber.45-70 Serial#26078657, Leupold Vari-X III 1.5-5 scope. cond/80%, $450. 516-250-4600.

RANGER TICKETS – 2 prs: 1/19-Atlanta Thrashers; 3/18-St. Louis Blues-GREAT seats. Laura, Ext. 7278.

SAKO AIII 7MM MAGNUM – S/N544531; Redfield 2-7 scope; cond 99%, $700. Ed, Ext. 3277, 516-250-4600, gavine@bnl.gov.

SNOW SKIS – Numerous sets available w/ poles, boots and bindings, call for details. Chris, 831-3469.

Tools, House & Garden

SNAPPER SNOW BLOWER – Model 8265, 26" 6/Forward, 1/Reverse, 8hp Tecumseh, $550. Ext. 4921 or jfranco@bnl.gov.

SNOW BLOWER – Sears 9HP 29", excel cond, new/$1200, ask/$600. Ext. 7330, 807-1380.

Wanted

1-MONTH SUMMER RENTAL HOUSE – seeking house sit or rental for family visit mid July-mid Aug. Prefer home for 8 people, near beach, yd sp. Ext. 2089.

2001 HYUNDAI ACCENT – parts: 2/dr w/dark gray int or the driver's side front seat, it does not need to run. 603-6285.

ADOPT-A-PLATOON – Monetary donations gratefully accepted towards mailing shipments to military overseas. Thanks. Joanne, Ext. 8481.

FIREARMS – want to buy new or old, fair $$$ pd. Joe, Ext. 3783, 487-1479.

KNIFE COLLECTION – to purchase one or many at fair $$$ paid, I am a knife collector. Butch, 924-5249.

KNITTING SUPPLIES & NEW BOOKS – Please donate to Hospitality class. All welcome to come to the Rec Hall Tues at 2pm. NEW Books needed for Dorm & Rec Hall exchange prog. Christine, Ext. 5090.

MADELA BREAST PUMP(S) – & pack & plays (3), expecting triplets; must be excel cond & reasonable. slattuca@bnl.gov.

NEW/GENTLY USED CLOTHES – from tots to teens, all donated to 76 families living in 1 local area shelter. $$ donations also welcome. Thank you! Laura, Ext. 4027 or lbuscemi@bnl.gov.

Miscellaneous

8 TICKETS ON SALE – for Shen Yun Performing Arts, Radio City, Feb 14, 5 pm, $48/ea, 30% off from $68. Ext. 4033.

BABY'S – swing $50; pink vibratg chr w/ toys/$15; exrcse flr plymte w/toys $10; Evenflo Exersauce/$35; 2 lg bags girl 3-6 mos sumr clthes/$20/ea. breast pump/$100, infant car seat/$50, Kathleen, Ext. 4503.

FULL SIZE SHEETS – QVC, blueberry med blue, unopened/$25; kitchen food scale, white, in box, unused, $25. 878-2425.

JEEP WAGONEER DBLE STROLLER – Kolcraft Du Pont Teflon Fabric Protected, brnd new, ask/$200, pic, dimens avail. Ext. 3500.

NORMAN ROCKWELL BOOK – the Artist and Illustrator Coffee Table Book, 13"x17", orig/$85, ask/$45. Ext. 2272.

Lost & Found

KEYS FOUND – on 2nd flr, Bldg. 1005S. Toni, Ext. 5257.

KEYS FOUND – in Biology East prkg lot on Jan 6, Contact Biology Admin. Office, must be able to identify key chain. Ext. 3415.

Real Estate For Rent

FARMINGVILLE – lg upstairs rm, share bath w/1 in house, full kit, d/r, l/r, cable, phone, wifi. $645/mo. Ben, 513-8275 or benonium@gmail.com.

MASTIC – 1 bdrm, eik, full bath, den, own ent/drway, 10 min to Lab, 1 mo sec, no smkg/pets. $850/mo. Giuseppe, Ext. 3499, 219-7241.

MEDFORD – lg master bdrm w/ priv bath, avail immed, mature professional only, kit privileges, 10 min to Lab. $140/wk. 708-4778.

MILLER PLACE – share lg furn Colonial house, 8mi to BNL, own bdrm. full kit int/tv/heat/ac/util incl, responsible non-smkr. $675/mo. 744-8386.

PATCHOGUE – 1 bdrm apt, loft style, bath, l/r, eik, w/d, priv ent/yd, patio area, util incl, 1/2 mo sec, no pets, 15 min to lab. $900/mo. Beth, Ext. 2852, 758-0830.

PORT JEFF STATION – Colonial, 3bdrm, 1.5 bath, l/r,d/r,eik, fin bsmt w/poss. 4th bdrm, w/d, d/w, fen yd, gas heat, no smkg, Comsewogue SD, young families on block, sec dep. req. $1,800/mo. 413-5012.

RIDGE – 1 bdrm apt, priv ent, full bath, microwave, lg closet no smkg, mins to Lab. $650/mo. Dottie, 775-6957.

ROCKY POINT – 1 bdrm upper unit, kit, bath, l/r, balcy, quiet co-op comm, nr stores, lndry rm on prem, prkg, no smkg/pets, cac, incl gas/water. $1,150/mo. 806-5965.

ROCKY POINT, – 1 bdrm, 2nd flr, priv drwy, incl some util no smkg/pets. $795/mo. 821-3287.

SHIRLEY – lg 1 bdrm bsmt apt, suitable for one, close to beaches/parks/freeways/lirr/ lab, all incl 1 mo rent + 2 mos sec, very nice. $700/mo. Ext. 3846.

SHOREHAM – Cozy 1 bdrm apt, priv ent, cath. ceilings, w/w/carpet, lg windows, l/r kit combo, br, bath, avail immed, mins from lab. utils incl. $800/mo. 821-0767.

WADING RIVER – 2 or 3 bdrms hse, eik, d/w, w/d, d/r, All wood flrs big back yd, no smkg, credit check. $1,650/mo. Paula or Dr. Ron, 209-0050.

N. MYRTLE BEACH, SC – 2 bdrm 4 beds, 2.5bath, Townhouse on golf course w/ comm pool, daily/wkly/mo rates avail. $590/wk. Chris, 516-660-0290.

Real Estate For Sale

RIDGE – Horselovers paradise! 1.5 acres adj NYS land, 4bdrm, 2 bath, M/D, Colonial, updated bath & kit, 2 stall barn w/paddock, fin bsmt, f/p, igs, cac, $479,000. Rick, Ext. 6183, 924-6199.

YAPHANK – 2 bdrm., 1 bath, d/r, lge l/r w/vaulted ceiling, hdwd flrs, updated kit & bath, bsmt, priv. comm. on Y'hank lake, taxes w/Star $2,800. $185,000 neg. 645-4359.

Community Involvement

BNL MUSIC CLUB – Enjoy music? Like working behind the scenes? The BNL Music Club is looking for volunteers. Help produce and promote live musical events. Joseph, Ext. 3846.

Happenings

BENEFIT CONCERT FOR ADAM LAMSON – fundraiser features The Fugitives, the Tommy Keyes Band, more at Vail-Leavitt Music Hall, Riverhead, 7pm, Jan 30 for former BNL summer intern battling cancer. Food is included in the advanced order ticket price of $40. Also, raffles/ auctions for wine baskets {Baiting Hollow Farm Vineyard} and autographed sports memorabilia. Go to adamlamson.com to purchase tickets/donations. Thank you so much. dberry143@optonline.net.

SHEN YUN PERFORMING ARTS – Chinese New Year Show in Radio City, Feb 13-21-2010, BNL Discount Code & Link: SYBNL15 https://webticketcenter.com/ny/ Brilliant,Inspiring,Glorious. Ext. 4033.

In Appreciation

I would like to thank all my friends in ES&T Dept. for the very generous donation made to Good Shepherd Hospice Center in Port Jefferson in memory of my Dad, Carmine Vaianella, and for their support and comfort during this very difficult time. Your thoughts and prayers were greatly appreciated.

— Maryann Julian

Thank you to all my friends in C-AD for their condolences and comfort after the difficult time of my mother's passing. Your generous donation went to the Wuesthoff Hospice in Florida who provided comfort to my mom during her last days. Your thoughts and prayers are greatly appreciated. —Tony Arno

Services

For a paper list of services provided by BNLers, from writing coaches to housecleaners, bricklayers, photographers, many more, call 344-2346, leave your address.

'Gathering of the Slides' Blues, 1/23

The eighth annual "Gathering of the Slides," a blues concert featuring the Kerry Kearney Band, Kane Daily, and TaleWaGon and Lonesome Dan and the Curmudgeons, will be held on Saturday, January 23, at 8 p.m. in Berkner Hall. Sponsored by the BNL Music Club, the concert is open to the public. All visitors to the Lab 16 and older must bring a photo I.D.

Back for an eighth year at BNL, Kearney (at right) performs his unique brand of upbeat blues and electrifying slide guitar that he calls "Psychedelta." The Kerry Kearney Band has performed at music festivals across the country and internationally, and has received the Long Island Sound Award (LISA) from the Long Island Music Hall of Fame. Band members include Kearney on guitar and vocals, Frank Celenza on bass, Eileen Murphy on drums, Charlie Wolf on harmonica, and Tony Campo on keyboard.

Kane Daily is singer, songwriter, and guitarist for TaleWaGon, a blues/rock group based on Long Island. Daily is best known for his delta-style blues on acoustic and slide guitar. Lonesome Dan and the Curmudgeons perform music that can be described as Americana, as well as a combination of blues and rock. This band's website states that they make music "for baby boomers who have survived the middle-class meat grinder with their sense of humor intact."

Tickets are $15 in advance and $20 at the door. Some "Golden" tickets — a limited number — are available for $30. Each Golden ticket comes with dinner, a meet and greet with the bands, and a limited edition signed poster for the event. Buy tickets at the BERA Store, through *www.ticketweb.com*, or at the door.. Buy tickets soon: "Gathering of the Slides" concerts are often sold out. — Jane Koropsak

A Reminder From the Benefits Office

All VYTRA and CIGNA participants (excluding IBEW hired prior to 8/1/06 and IBEW retirees who terminated between 8/1/00 and 7/31/06) have a prescription drug deductible of $100 per person/$300 per family every calendar year. As a result, you must satisfy a new deductible beginning January 1, 2010. Also, new insurance identification cards will not be sent to you unless you made a change to your coverage that would require a new identification card (for example, changing from one insurance company to another).

the Bulletin

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Liz Seubert, editor
Joe Gettler, staff
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.asp*.

Bldg. 134, P.O. Box 5000
Upton, NY 11973-5000
phone: (631) 344-2345
fax: (631) 344-3368
e-mail: *bulletin@bnl.gov*