



# July 15, 2011



Some of the 200 participants who attended the 2011 RHIC/AGS Users' Meeting held at Brookhaven Lab

# **Forging the Future for RHIC and eRHIC** *Researchers gather at Brookhaven Lab in June to participate in the 2011 RHIC/AGS Users' Meeting*

Kicking off the second decade of operation for the Relativistic Heavy Ion Collider (RHIC) program, the RHIC and Alternating Gradient Synchrotron (AGS) user community gathered at Brookhaven Lab last month for the annual RHIC/AGS Users' Meeting to develop a long range plan that could lead the next phase of the RHIC program well into the 2020s.

Two hundred members of the user community participated in workshops and discussions during the annual meeting, held from June 20 through June 24. Much of this year's meeting was devoted to determining a long range plan for RHIC — not only the first facility to view clearly the transition to quark-gluon plasma, but also the world's only polarized collider — and eRHIC, a proposed major upgrade that would provide capabilities for RHIC to collide electrons in addition to heavy ions and polarized protons.

"We have a platform of success at RHIC, and it is now time to build upon it," said Associate Laboratory Director for Nuclear and Particle Physics Steve Vigdor as he addressed participants during the plenary session on June 23.

During his talk, Vigdor noted that the need for a coherent strategic plan is driven by several "new realities," including competition from the Large Hadron Collider (LHC) at CERN, Switzerland, and financial constraints in future federal budgets, as well as the DOE Office of Nuclear Physics' commitments to upgrade the Continuous Electron Beam Accelerator Facility (CEBAF) at Jefferson National Laboratory and build the Facility for Rare Isotope Beams (FRIB) at Michigan State University. "There is bipartisan support for protecting basic research," Vigdor said. "But this is an opportunity for the user community to maximize RHIC scientific impact along the path to eRHIC while fitting in the constraints implied by these budget and commitment realities." While there are a number of additional upcoming planning exercises, Vigdor outlined three stages for RHIC's future. During the first stage from 2011 until 2016, upgrades to RHIC and the PHENIX and STAR detectors would be used to address key questions such as how "perfect" is quark-gluon plasma and whether there is a critical endpoint in the quantum chromodynamics phase diagram. During the second stage from 2017 until 2022, RHIC would be used to

quantify properties of matter as a function of energy. The third stage, which would begin in 2022, hinges on eRHIC, the proposed elec-

proposed electron-ion collider upgrade to further explore the origin and makeup of the universe.

This plan and related issues, such as cost, the transition of users from RHIC to eRHIC and competition with LHC, were discussed during a panel discussion on the second day of the plenary session. Panelists included Yasuyuki Akiba of the **RIKEN Brookhaven Research** Center; Helen Caines, Yale University; Abhay Deshpande, Stony Brook University; Ulrich Heinz, Ohio State University; Thomas Roser, BNL; and T. James Symons, Lawrence Berkeley National Laboratory.

# Wrapping Up Run 11

Users' meeting attendees heard reports about Run 11, which began in January and concluded in late June, from RHIC Run Coordinator Haixin Huang, PHENIX Run Coordinator Takao Sakaguchi, the STAR collaboration's Stephen Trentalange, and Akio Ogawa of the AnDY collaboration — a new program at RHIC in which researchers are currently assessing whether another collision point can be added at RHIC without decreasing luminosity (the rate of collisions) at PHENIX and STAR. The results will then be used to determine the feasibility of measuring any asymmetry when quarks and antiquarks annihilate. Despite time lost during Run 11 due to various issues including electrical problems, luminosity often exceeded last year's best value and this set a new record for heavy ion colliders, thanks to machine improvements such as stochastic cooling, upgraded radio-frequency cavities, and accelerating ramp and beam orbit



If received, the majority of
that increase — \$64 million
— would support two priority
projects: an upgrade to CEBAF
and the design of FRIB. The
funding request for the rest of
the nuclear physics programs is
positive overall, with a \$1.9 million allotment for development
of the STAR heavy flavor tracker
and a \$7.4 million increase for
RHIC operations, which would
allow the machine to run for 24

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weeks, Hallman said. Although the FY12 budget is far from final, Hallman said there's both good and bad news. The House Appropriations Committee recently recommended that the nuclear physics program receive an \$11.9 million increase in FY12, about \$53 million less than the original request. The recommended amount was still 2.2 percent higher than the previous year — one of the highest among the Office of Science programs. "On the other hand, we're still \$53 million down from where we need to be," Hallman said.

As the appropriations bill now travels to the Senate, Hallman stressed the importance of communicating the value of research done at Brookhaven and across the country.

"Keep demonstrating excellence in everything we do," he said. "Keep spreading the word. We might have very tough discussions about what our priorities are, but to the outside, we need to be one community." Hallman also said he was pleasantly surprised by the vitality of RHIC research he witnessed throughout the meeting's workshops and gatherings. 'My impression from the last few days is that this science is just as vital and interesting, and perhaps even more interesting, than it has been in the past," he said. Kyungseon Joo, Program Director at the NSF's Division of Physics, gave an equally cautious outlook on nuclear physics funding. For FY11, the Mathematical & Physical Sciences Directorate requested... See RHIC/AGS Mtg. on p.2

# Two R&D 100 Awards For BNL Imaging Devices



From left, BNL's Don Pinelli, Arthur Zhi Yong Li, Anthony Kuczewski, and Peter Siddons. Missing from the photo are BNL's Gianluigi DeGeronimo and Paul O'Connor. Together with researchers from the Commonwealth Scientific and Industrial Research Organisation (CSIRO) in Australia, the Brookhaven team developed the Maia x-ray microprobe, a high-quality imaging device 1,000 times faster than previous methods.



(From left) BNL's Matt Sfeir, Yimei Zhu, and Jonathan Rameau show off the award-winning multimodal optical nanoprobe. Mirko Milas, a former postdoctoral fellow at Brookhaven Lab who played a key role in developing the device, was unavailable for the photo.

# Devices to be Used in Scientific Research

BNL has won two R&D 100 Awards for developing imaging tools that will help researchers study materials ranging from seventeenth-century paintings to photovoltaics. The new devices promise to unlock scientific secrets with greater depth and coverage.

*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 awards will be presented on October 13, in Orlando, Florida.

Brookhaven is one of 13 DOE labs, sites, and facilities that have won a total of 36 R&D 100 Awards this year.

"I want to congratulate this struct year's R&D 100 Award winners. by N The Department of Energy's AB. B are at the forefront of innovation, and it is gratifying to see their work recognized once again," said Energy Secretary Steven Chu. "The cutting-

edge research and development done in our national labs and facilities is helping to meet our energy challenges, strengthen our national security, and enhance our economic competitiveness."

The DOE Office of Science funded the development of both devices, with the Commonwealth Scientific and Industrial Research Organisation (CSIRO) providing additional funding for the development of the Maia x-ray microprobe detector (see description on p.2). Brookhaven Lab designed the laser system and holder for the multimodal optical nanoprobe. Also, Brookhaven built the laser system and funded the construction of the device's holder by Nanofactory Instruments AB. Brookhaven Science Associates, the company that manages Brookhaven Lab for DOE, holds several patents on various aspects of Maia and has applied for a patent on the nanoprobe. See R&D 100 Winners on p.2

**Funding Outlook** 

feedback systems.

During the meeting, officials from DOE and the National Science Foundation (NSF) addressed the challenges U.S. science will face in the coming years.

For FY12, DOE's nuclear physics program requested an increase of about \$70 million, an almost 16 percent boost, said Tim Hallman, Associate Director for Nuclear Physics in the DOE Office of Science.

See a video of Vigdor's talk online: http:// real.bnl.gov/ramgen/ bnl/2011/06/Vigdor.rm

# Panel Discussion at BNL on Tech Transfer, 7/25 Funding Your Technology-Based Startup'

BNL is hosting a panel discussion on "Funding Your Technology-Based Startup" on Monday, July 25, at the Brookhaven Center, from 5 to 7:30 p.m. This is the fourth meeting of the Entrepreneurs' Foundation Workshop series hosted by the Lab.

A panel of experts on funding technology startups will address such questions as: What types of investments are venture capitalists looking for? What are the characteristics of a winning investor pitch? What makes a technology-based business attractive to investors? Additional questions will be taken from the audience.

The workshop is open to the public. There is a \$10 fee, and advance online registration is required. Online registration and payment by credit card is available at the Entrepreneurs' Foundation Workshop website, *www. bnl.gov/efw/*. Registrants may also pay the fee at the door by cash or check after pre-registering. All visitors to the Lab age 16 and older must bring a photo ID.

The agenda includes refreshments and networking from 5 to 5:30 p.m., the panel discussion... See Tech Transfer on p.2



# The Bulletin

# RHIC/AGS Mtg. from p.1

...a 4.3 percent increase from the previous year. But in reality, funding for all research-related activities decreased overall by 1 percent, Joo said, including a 3 percent decrease for nuclear physics. Worsening the situation, the multiyear awards NSF received from the American Recovery and Reinvestment Act will expire in 2012.

"We tried to minimize this effect, but it's going to be a very difficult year," Joo said.

# Thesis Awards

The two winners of this year's thesis awards, which each included a plaque and \$3,000, were: Ermes Braidot from the University of Utrecht and Todd Kempel from Iowa State University. Braidot, whose thesis is titled "Two-particle Azimuthal Correlations at Forward Rapidity in STAR," worked on all aspects of the experiment, including detector assembly, calibration, and analysis, particularly detailed studies of the calorimeters and the time projection chamber at STAR. Kempel's thesis, titled "Understanding the J/Psi Production Mechanism at PHENIX," spans one year of data taking and includes the first measurements of charmonia (elementary particles consisting of a charm quark and an antiquark) at the highest RHIC energy of 500 GeV.

# User Executive Committee Election Results

Members of the user community also elected new representatives for the RHIC/AGS Users Executive Committee (UEC) during the meeting. This group provides an organized avenue for discussion among BNL administration and those who use BNL's nuclear, high-energy, and heavy-ion, radiobiological, and testing facilities. Joining UEC Chair Peter Steinberg, Mei Bai of BNL's Collider Accelerator Department was voted to be chair-elect of the UEC, along with new members Cesar Luiz da Silva, Los Alamos National Laboratory; David Kleinjan, University of California at Riverside; Baldo Sahlmueller, Stony Brook University; and Anne Sickles and Zhangbu Xu of BNL.

Helen Caines of Yale University is now the past chair of the UEC, and outgoing members include former Chair Carl Gagliardi of Texas A&M University, and members Elena Bruna, Yale University; Jan Kapitan, Charles University; Bedangandas Mohanty, Variable Energy Cyclotron Centre; Rusty Towell, Abilene Christian University; Guillaume Robert-Demolaize, BNL; Paul Stankus, Oak Ridge National Laboratory; and Imran Younus, University of New — Joe Gettler and Mexico. Kendra Snyder



From left, Don Pinelli, Arthur Zhi Yong Li, Anthony Kuczewski, and Peter Siddons From left, Matt Sfeir, Yimei Zhu, and Jonathan Rameau

# Two R&D 100 Awards for BNL Imaging Devices........continued from p.1

# One of BNL's awards was given for a device that will enhance studies that use x-ray fluorescence, a powerful technique often used in the biological, environmental and geological sciences for measuring trace element concentrations in a sample. It's also a way to shed light on the complexities of archeological and historical artifacts. A major roadblock, however, is the time it takes to scan the object of interest, as the system<sup>1</sup>s small x-ray spot is manually moved from one location to another.

At the National Synchrotron Light Source (NSLS), researchers from Brookhaven and the Commonwealth Scientific and Industrial Research Organisation (CSIRO) in Australia developed an "on-the-fly" device called the Maia x-ray microprobe detector system. Now being implemented in the Australian Synchrotron and the NSLS, the non-destructive system, which is about 1,000 times faster than previous methods, has been used to image everything from soil deposits to barley grain, to paintings created by Bertha Lum, Edward Hopper, and Rembrandt. In all cases, it has reduced the amount of experimental time that's required from days to hours.

Tech Transfer Panel from p. 1

...and Q&A from 5:30 to 6:30 p.m., and more refreshments and networking from 6:30 to 7:30 p.m.

This workshop is sponsored by Nixon Peabody, and cosponsored by the U.S. Small Business Administration, the New York State Small Business Development Center, and Stony Brook University. The moderator for the panel discussion will be Walter G. Copan, Manager of BNL's Office of Technology Commercialization and Partnerships. Panelists include:

**Allan H. Cohen**, Partner serves as its general counsel and vice chair of its advisory board.

Maia Device Wins Again On July 5, Robin Kirkham of CSIRO received on behalf of the Maia team an Information Technology R&D division "iAward" from Victoria State in Australia. Maia will now be entered into the national version of that award that will be taking place in August.

"This method allows us to scan the sample continuously along a line," said BNL physicist Peter Siddons, one of the primary developers along with Chris Ryan from CSIRO. "The exposure time is just a few milliseconds at each point, so it never really stops moving. However, we collect full spectral data as we go. That not only makes it fast, but allows a high-quality quantitative analysis as well."

Ryan added, "Maia has been a wonderful international collaboration spanning eight years and bringing together the complementary talents and shared enthusiasm of specialists from BNL in the U.S. and the CSIRO in Australia. It's been productive, exciting, and a pleasure to work with these creative people." The second technology recognized is a device called the multimodal optical nanoprobe, developed by Brookhaven researchers with a Swedish company, Nanofactory Instruments AB. It is used in a transmission electron microscope to measure numerous properties of a sample simultaneously, in addition to imaging.

When mounted on a transmission electron microscope, the multimodal optical nanoprobe provides simultaneous measurements of optical, electrical, mechanical, and structural properties of nano-sized materials and devices that are magnified from 1.000 to 50 million times. The combination of several different measurement techniques in the probe provides a new level of material characterization that is not possible by sequential application of those techniques. Further, these capabilities have been streamlined into a single package that, at minimal expense and difficulty, can be integrated into nearly any electron microscopy system.

The system can be divided into several sections that can be optimized for a particular set of experiments. It can be used in numerous types of experiments in many scientific fields. the team that developed the nanoprobe with Nanofactory Instruments AB Chief Technology Officer Johan Angenete and his associates, said, "There are multiple applications for the nanoprobe. In particular, it allows us to shine light and measure electric current on the sample while examining its structure at atomic resolution, thus correlating properties of materials or devices with their structure. This unprecedented microscopy capability has been long desired in photovoltaics research for improving the efficiency of solar panels. Also, the device can be used for studying defects and deformation behavior of functional nanomaterials, and for imaging biological structures, such as proteins, with minimal damage to the sample."

BNL's Yimei Zhu, leader of

Lennart Johansson, CEO of Nanofactory Instruments AB, said, "We are proud to have developed this groundbreaking technology with Yimei Zhu and his team at Brookhaven National Laboratory. There is a rapidly growing market for this kind of product, and we are pleased to be able to supply this muchneeded device."

> — Diane Greenberg and Kendra Snyder

# world's largest law firms.

**Jim Chinitz**, CEO, Population Diagnostics, Inc., a company that he co-founded in 2006 to develop and market DNA-based diagnostic tests for pre-symptomatic early detection of disease.

Michael L. Faltischek, Senior Partner, Ruskin Moscou Faltischek, P.C., a major regional law firm, is a founding member and chair of the Long Island Angel Network. He also helped found Stony Brook University's (SBU) Advanced Energy Research and Technology Center, and serves as its general counsel and vice chair of its advisory board. **Clayton Besch**, Director, Small Business Technology Fund, earned a Ph.D. in biochemistry but later focused on finance and investment.

**Murat Ozsu**, CEO of inn-Road, founded the web-based hotel management solutions company in 2006.

**Steve Winick**, Partner, Topspin Partners, Inc., is a registered patent attorney who had previously been Chief Technology Officer of the \$2 billion security group at Honeywell International. Topspin Partners, Inc. is a venture capital fund that is a successor to the L.I. Venture Fund and affiliated with the Renaissance Technologies hedge fund.

**John May**, President, William E. Hill & Co. and Senior Partner, Towers Perrin, both management-consulting firms, is also an active Long Island Angel Network participant.

BNL, the Small Business Administration, SBU, and the New York State Small Business Development Center at Stony Brook developed the Entrepreneurs' Foundation Workshop Series to help those interested in starting small technology companies. See details on the panelists are online: www.bnl.gov/bnlweb/pubaf/ pr/PR\_display.asp?prID=1304.

— Diane Greenberg

# Defensive Driving: Two Parts, 7/18 & 25

The next six-hour Defensive Driving (Point & Insurance Reduction) course will be held in two parts on consecutive Mondays, July 18 in the Brookhaven Center South Room and July 25 in Berkner Hall Room B, 6-9:15 p.m. The cost is \$33 per person. Preregistration is required — call Ed Sierra, 821-1013, and leave a message. Or take a New York DMV approved course (Use code: "SAVE10" for \$10 discount) online: www.lidrivesafe.com/. Chris Bruno arrived at Brookhaven Lab in April of this year and just two months later, the New York State Society of Professional Engineers recognized him for his work at his previous job at the Suffolk County Water Authority.

A facility complex engineer in BNL's Facilities & Operations Directorate, Bruno was awarded the Society of Professional Engineers' Professional Engineer in Government Award on June 28. The award recognizes a professional engineer in government who, during a career in public service, has made outstanding contributions to public health, safety and/or welfare, the engineering profession, and the goals of the Society of Professional Engineers through demonstrated managerial ability and professional engineering achievement.

Bruno is a licensed professional engineer and has been a

New York Society of Professional Engineers Honors Chris Bruno

member of the New York State Society of Professional Engineers since 1998 — two years after he joined the Suffolk County Water Authority nearly 14 years ago. He was in charge of all electrical systems, water treatment control systems, and communication systems. One project Bruno oversaw involved implementing a wireless monitoring and control system that transmits data such as chlorine/pH residuals, flow rates, and water pressure from the Water Authority's 600 wells and 250 pump stations in real time. He also designed and managed the construction of a 10-kilowatt solar system for the Water Authority.

"I've always been a tinkerer a mechanical person who takes things apart and puts them back together to understand how they work. At the Water Authority, I was involved in the mechanical and accounting aspects of man-



aging projects. That's what I'm here to do at Brookhaven," said Bruno, who earned a bachelor of science degree in electrical engineering at the New York Institute of Technology and master's of business administration degree in corporate finance from Dowling College.

At BNL, Bruno, Jim Feeney, Joe

Levesque, and Brian McCaffrey are the Lab's four facility complex engineers. Each works in a different facility complex under the Lab's new Integrated Facility Management program (IFM), a Blueprint initiative, to help the facility complex managers solve engineering challenges and ensure that all facilities within their complex are compliant with building codes and mission-ready to support the scientists and researchers at BNL.

This is exciting to Bruno, who said: "Few engineers ever have the opportunity to see the sheer complexity of the equipment and the facilities here."

Managing BNL's facility configuration is a big job that requires many good people. Bruno may be new here, but he has the chops — and with his new award, he has even more street cred. — Joe Gettler

# The Bulletin



Members of the Environmental Restoration Projects team mark their 1,000th consecutive day without a recordable injury.

# **ERP Reaches Safety Milestone:** 1,000 Days Safe and Counting

June 29 marked a major safety milestone for BNL's Environmental Restoration Projects (ERP). That date was the group's 1,000th consecutive day without a recordable injury. It's an accomplishment the 52 members of the ERP team attribute to a strong safety training program, management commitment, employee engagement, and an enduring safety culture.

"Safe work practices are essential to the success of our projects," said Diane Rocco, ERP Director. "Every morning, we aim to add one more day without a lost-time accident to our excellent safety record."

# **Difficult Projects Make** Safety Job Number One

ERP is completing several complex environmental cleanup projects, including the decommissioning of the Brookhaven Graphite Research Reactor (BGRR) and completion of near-term actions associated with the decommissioning of the High Flux beam Reactor (HFBR).

"Collectively, these projects present an array of challenging tasks, including large building demolitions, excavations, and handling and transportation of heavy loads - nearly all of which are performed in a radiological environment," said Chuck Schaefer, ERP project support manager. "Throughout all this difficult work, safety is everyone's main priority."

Workers receive thorough safety training involving the many risks they encounter in the field - heavy equipment, electrical and chemical hazards, and working at heights. In addition, managers work to maintain a safe workplace, provide oversight of field work, and continually seek to improve safety as required by the Lab's Environment, Safety, and Health Policy.

"The BGRR is the first DOE decommissioning project I've worked on," said Bobby Atanasio, a BGRR equipment operator. "A great deal of attention is given to worker safety. Everyone watches out for each other."

ticles, which reinforce concepts they learned in safety training.

"We actively seek the feedback of every employee as a vital source of information to continually improve our safety performance," Schaefer said. "Managers and supervisors frequently observe work in progress to provide feedback on safety plus solicit safety suggestions from employees. This is an important and constant two-way dialogue to ensure we're all working as safely as possible."

# **ERP** Accomplishments and Work Ahead

At the BGRR, workers are currently dismantling the 4,760-ton steel and concrete biological shield that completely surrounded a 25-foot graphite cube or "pile," made up of more than 60,000 graphite blocks and weighing 700 tons. Last year, the workers safely removed the pile and shipped the graphite blocks to the Nevada National Security Site for disposal. The installation of an impermeable cover or "cap" over the area surrounding the reactor building to protect groundwater is nearing completion.

At the HFBR, the following decommissioning projects were completed: removal of highly radioactive control rod blades and beam plugs; stabilization of the HFBR Confinement Building for long-term safe storage to allow for radioactive decay of large activated components; removal of contaminated underground pipes and ducts; and demolition of two fan houses. Removal of the stack silencer baffles is in progress.

### **Safety versus Deadlines**

Like many projects, deadlines are important. Projects have schedules to meet a variety of requirements, such as funding agreements, deadlines in contractor agreements, and cost control. However, according to Schaefer, safety always remains the overriding consideration.

"Our project discussions are not limited to the schedule.



Accompanying the 2011 Gertrude Scharff-Goldhaber Prize winner, Stony Brook University (SBU) student Megan Connors, and her advisor, SBU Distinguished Professor Barbara Jacak (center, both holding the award certificate) are (from left) Loralie Smart, Aimee Sumereau, Kathy Walker, Brookhaven Women in Science board members; Anne Sickles, BNL assistant physicist and former Goldhaber Prize winner: and BNL board members Carla Vale, Linda Bowerman, and Vinita Ghosh.

# SBU Student Megan Connors Wins 2011 Gertrude Scharff-Goldhaber Prize

Megan Connors, a Stony Brook University (SBU) graduate student, has been awarded the 2011 Gertrude Scharff-Goldhaber Prize, consisting of \$1,000 and a framed certificate. Currently funded by Brookhaven Science Associates, the company that manages BNL for DOE, the award was established in 1992 by Brookhaven Women in Science (BWIS), a nonprofit organization that supports and encourages the advancement of women in Scharff-Goldhaber science. The award recognizes substantial promise and accomplishment by women graduate stuold this week dents in physics who are performing their thesis research at BNL, or who are enrolled at SBU.

Connors earned a B.S. in physics and mathematics from the University of Massachusetts, Amherst, in 2005, and she expects to earn a Ph.D. in physics from SBU this summer. She is performing her research at the PHENIX detector, one of two large detectors at BNL's world-class accelerator, the Relativistic Heavy Ion Collider. Specifically, she gathers and interprets data from PHENIX, which probes quarkgluon plasma, the type of matter that is thought to have existed just microseconds after the Big Bang. After she earns her Ph.D., Connors plans to continue studying quark-gluon plasma in heavy ion collisions as a postdoctoral fellow.

The Scharff-Goldhaber Prize commemorates the outstanding contributions of the late nuclear physicist Gertrude Scharff-Goldhaber. In 1950, she became the first woman Ph.D. physicist appointed to BNL's staff. She also was a founding member of BWIS.

Scharff-Goldhaber, who died at 86 in February 1998, would have been 100 years old this week. In a 1998 tribute, Robert Park of the American Physical Society called her: "One of the great women pioneers in what was an almost exclusively male profession...An inspiration to generations of women in physics, she was only the third female physicist elected to the National Academy of Sciences." Scharff-Goldhaber's husband, Distinguished Scientist Emeritus and former Lab Director Maurice Goldhaber, who celebrated his 100th birthday in April of this year, died on May 11. — Diane Greenberg

# *Register for Workplace Challenge, 7 p.m., 7/26* Join BNL's Group on the Jones Beach Run/Walk

Register now for the Marcum Workplace Challenge taking place on July 26 at 7 p.m. This 3.5 mile run/walk at Jones Beach, which is also underwritten by the BNL Health Promotions Program, is a great event for family, friends, and co-workers. For several years, BNLers have attended this fun event, often winning age-grouped contests. The day ends with all the BNL party enjoying a picnic together.\* Captains for this event are: Paul Geiger, pgeiger@bnl.gov Bldg. 460, (631) 344-3308; and Mike Mapes, *mapes@bnl.gov*, Bldg. 911A, (631) 344-2841. All the Lab community is welcome to join the group who will participate. As part of the BNL team you will receive a tee shirt and a post-run picnic. Transportation is on your own. Race Registration: Register online at https://secure.MarathonGuide.com/register/MKWorkplaceChallenge/TeamAdditions. *cfm?Code=661P4XK*. Entries cost \$23.

# CALENDAR - WEEK OF 7/18 -

# Monday, 7/18

\*Defensive Driving Course, Part I 6-9:15 p.m. Brookhaven Center South Room. See p.2.

Wednesday, 7/20

Talk on Investing for Retirement Noon. Berkner Hall, Room B. Brett Hammond. TIAA-CREF Senior Economist, will talk on investing for retirement in the 'new normal" economy. All the Lab community is welcome. Register at *https://intranet.bnl. gov/eventreg/* or Ext. 7516.

# — WEEK OF 7/25 —

### Monday, 7/25

### \*Tech-Transfer Startup Panel Mtg. **Open to Public**

p.m. Brookhaven Center South Room. Part of the Entrepreneurs' Foundation Workshop Series to help those interested in starting up small technology companies. A panel of experts on funding technology startups will hold discussions. 5-5:30 refreshments and networking, 5:30-6:30 p.m. panel discussion, Q&A; 6:30-7:30 p.m., refreshments and networking. The fee is \$10. Preregistration is required, at www.bnl.gov/efw/ or at the door. Visitors to the Lab of 16 and older must carry photo ID. See story, p.1.

#### **IBEW Meeting**

would have

turned 100 years

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 Course, Part II 6-9:15 p.m. Berkner Hall, Room B. See p.2.

# Wednesday 7/27

**BSA Noon Recital: Pianofest** Noon. Berkner Hall. Star pianists will perform. All are welcome to this free public event,

sponsored by Brookhaven Science Associates. Visitors to the Lab of 16 and older must carry a photo ID.

# **Remember to Donate** To the BNL Food Drive

Neighbors are hungry in Brookhaven Town. Please help them by donating food. Bins are ready to receive canned goods in many buildings on site, including Bldg. 400.

# **Arrivals & Departures**

Arrivals –

Annick Anctil.....Sust. En. Tech Matthew Eisaman..Sust. En. Tech Jonathan Halverson ..... CFN Kevin Knox.....CMPMS

# **Constant Safety Dialogue**

Each workday, workers, supervisors, and managers gather to plan work activities in what's known as a "tailgate meeting." Everyone thoroughly reviews the work hazards and safety controls. They have candid discussions about how operations can be improved to enhance safety. In addition, the team talks about safety ar-

Safety makes science possible at Brookhaven National

DOE wants us to be safe first and foremost," Schaefer said. "If we complete a task right the first

time in the safest manner possible, we help prevent mishaps, which saves time and cost in the long run."

# How Are You or Your Team **Improving Safety?**

Do you have a safety success story? Share it with Internal Communications Manager, Jim Green, Ext. 4629 or — Jim Green igreen@bnl.gov.

at Brookhaven National Laboratory http://intranet.bnl.gov/safety

# Car-Wash to Support AdoptaPlatoon, 7/28

To support the Brookhaven Veterans Association's AdoptaPlatoon efforts, get your vehicle washed at the Fire House between 11 a.m. to 1 p.m., Thursday, July 28 (raindate, Friday, July 29). Your donation to have a spiffy clean car will be \$5.

\*The fee for the picnic is \$10 per person. Please send a check, made payable to Betty Elder, to Betty Elder, Bldg. 1005S. Help is also needed in setting up the picnic. Contact Elder at *belder@bnl.gov*, Ext. 3562; or Sue Wells, swells@bnl.gov, Ext. 7427.

# Join a BERA Trip

Buy tickets at the BERA Store in Berkner Hall, weekdays, 9 a.m.-3 p.m. Trips leave from the Brookhaven Center, Bldg. 30. For information on more trips and discounts, drop by the store or see www.bnl.gov/bera/.

"Do-as-You-Please-Trip to NYC" Sat. July 16. Battery Park/Statue of Liberty area. Leave BNL at 7:30 a.m., leave NYC at 5 p.m. \$20 per person. Sat., July 23. Walking Tour of Greenwich Village in NYC. Leave BNL at 8 a.m., leave NYC at 5 p.m. \$25 per person, includes bus, two-hour walking tour, tips for tour guide & bus driver.

Sun. Aug. 28. Red Bull Professional Soccer vs. LA Galaxy in Harrison, NJ. Leave BNL 4 p.m., for 7 p.m. game, leave after game, 10 p.m.-ish. \$33/person incl. bus, tip, ticket to game, in Sect. 221.

bobby Layne	Jnemistry
Eugene Santiago IIIS&F	I Services
Joseph Seele	Physics
Chao Zhang	Physics

- Departures -

Ross Burns	PPM
Eric Feldman	Photon Scis
David McChesney	Magnet
Susan Rackett-Rosse	etti Lab Prot
Margareta Rehak	Photon Scis
Paramita Sarkar	Biology
Steven Wohl	Env Scis
Corene Wood	ITD

# TIAA-CREF One-on-One **Retirement Counseling**

A TIAA-CREF consultant will visit BNL on July 8 and 28, on August 1, 4, 18, and 23, and September 7, 8, 12, 19, and 27, to answer employees' questions about their financial matters. For an appointment, please call 1-800-732-8353 or go online at www.tiaa-cref.org/bnl and select "set up a meeting."

# BNL's Summer Sundays, 7/17-8/14



BNL's Summer Sundays — exciting science shows, tours of world-class science facilities, and hands-on educational activities for the whole family are all for free! BNL will be open on Summer Sundays from July 17 to August 14, for the public, employees, and their families to enjoy a fun-filled visit while learning about dynamic scientific developments at the Lab.

No reservations are needed, but visitors age 16 and over must bring a photo ID. Visitors may arrive any time between 10 a.m. and 3 p.m. A different tour and new science show will be featured each week. The last facility visit takes place at 3 p.m. each week, and science shows will be held at noon, 1:30 p.m., and 3 p.m. each Sunday in Berkner Hall. A cafeteria and gift shop, also located in Berkner Hall, will be open until 2 p.m. and 4 p.m. respectively.

This Sunday, July 17: At the Center for Functional Nanomaterials, BNL researchers probe structures as tiny as a billionth of a meter. Learn about scientists' latest discoveries in innovative energy technologies. Be amazed by "The Magic of Energy" show. This science facility tour is appropriate for children age 10 and over. On the agenda: Solar Macro Lithography - Although lithography was invented in 1796, it is still critically important in the manufacture of many common items, including computers, books, and artwork. The CFN contains over 5,000 square feet of "clean room" space dedicated to this and similar techniques that are used to make nanostructured materials. Learn how to create your own "master" designs that can be transferred into photosensitive paper.

Nanofabrication Demonstration – Take a look inside the clean room as scientists demonstrate the power of focused ion beams for writing and imaging custom nanostructures.

Visualizing Atoms with Transmission Electron Microscopy -Did you know that there are things that are too small to be seen with a normal light microscope? For information on the structure of materials — down to an atomic level — scientists use a state-of-the-art instrument called an electron microscope. The CFN has four of them! Stop by to see what an atom looks like.

Make Graphene, Win a Nobel Prize – The Nobel Prize in Physics was awarded in 2010 for experiments on graphene, a one-carbon-atom thick material similar to what is found in pencils. The critical breakthrough was the use of Scotch tape! Come fabricate and image your own graphene samples.

DNA and Self-Assembly - Learn about the amazing specificity of DNA and how it assembles and how it can be used to direct the assembly of new materials.

Clean Room Gowning and Photo Station - Clean room suits are used to protect critical processes from dust and contamination. Visitors can get their photo taken in a clean room "bunny suit."

Nanoscience, Safety, and the Environment - Learn about what the CFN is doing to promote sustainability while protecting its workers, the community, and the environment from any potential hazards. CFN scientists and employees from the Safety & Health Services Division will be on hand to answer general questions about your visit.

### For Future Sunday Visits:

7/24: Learn about dazzling science discoveries at the National Synchrotron Light Source (NSLS) and plans for the future NSLS-II, now under construction, and see the "Science Laser Light Spectacular" show.

7/31: Hands-on family fun exploring magnets, mirrors, and more. Hop aboard a fire truck, and see the "Phenomenal Physics with Mr. Fish" show.

8/7: Track storms at the National Weather Service. Watch a weather balloon launch at 3:30 pm, and see the "Weather" show

8/14: Tour the atom-smashing Relativistic Heavy Ion Collider and meet "Einstein Alive."

# **Riding into 11 Sunsets: BNLer to Bike Across NYS**

On August 6, 2011, the cool mist that constantly rises from the rushing waters of Niagara Falls will be very much appreciated by one BNL scientist. That's the day the Collider-Accelerator Department's John Morris plans to finish a 600-mile bicycle trek across New York State, from the tip of Montauk Point to the edge of Niagara Falls.

Crowell plan to complete in 11 days, with one day of rest in the middle. is part fun and i g part charity project that Morris devised last fall.

"I've always wanted to go on a ride like this and started planning for it late last year," Morris says. "On one level, this trip is a chance to do something that I've always wanted to do. But from the beginning, I thought it might be a great opportunity to help people. So I turned it into a fundraiser for three different organizations, all of which I have some kind of connection with."

The beneficiaries of Morris' project include the Parkinson's Disease Foundation, the Smith Haven Ministries, and the Unitarian-Universalist Service Committee.

'My mother had Parkinson's disease," says Morris. "It really affected her and my Dad's lives until last year, when she passed away from pneumonia. And recently, a good friend of mine in Baltimore contracted very aggressive, early onset Parkinson's, and he died directly as a cause of the disease."

The other two organizations are associated with the Unitarian-Universalist church that Morris and his riding partner attend.

"I'm on the board for The Ministries," he says, "which runs an emergency food pantry, counseling services for local families, and a shelter for runaway teens, as well as Project Warmth, which helps people in need keep their homes heated in the winter. And I chose the Unitarian-Universalist Service Committee because it supports programs around the world that promote universal access to clean water. That struck a chord with me because, as I thought about this ride and started planning it, I was very thankful that I'll have access to good, sanitary water in rest stops all across New York State - but there are people in the world who have to walk miles for clean water or have no sanitary water options at all."

To prepare for the ride, Morris took weekend cycling trips to various locations on Long Island, in-



cluding Port Jefferson, which has steep hills that will help him tackle the mountain terrain in upstate New York, and into Manhattan, through which they'll ride on the third day.

"We'll cross the Brooklyn Bridge and the Walkway Over the Hudson at Poughkeepsie," reads Morris's website for the ride. "After riding through the Catskill Mountains, we'll swing north to the Erie Canalway trail for our ride through western New York."

Along the way, Morris and his partner plan to stay with friends, which will cut down on their costs and the amount of equipment they have to bring.

"It's nice not to have to lug a tent the whole way," says Morris. "People have been so helpful in the planning of this trip. To map the route itself, I started with the cycling function on GoogleMaps, then contacted cycling clubs in different areas to see what they thought would be the best routes. A lot of people made some nice suggestions about which roads to travel and which to avoid."

Morris is hoping donations will continue to come in throughout (and following) the ride, which he'll be blogging about at: http://niagarabycycle.info. Anyone who would like to view the blog or donate can do so by visiting the webpage. Emily Ruppel

COOLER, THERMOELECTRIC - power/ chill, hot/cold, 40qt, \$50; 897-2736. DRESSERS, LAMP - Three dressers large/med/small, \$75; floor lamp, \$10. Thomas, Ext. 3085. KITCHEN DINING SET - Maple Table w/ leaf, 6 Windsor style chrs, 2 w/arms. \$700 all. Kathleen, 298-5345, or hygom@bnl.gov.

KITCHEN TABLE - sm w/4 chrs, light pine, grt for students/\$35. tsummers@bnl.gov. TWIN BEDRM SET - mahogany, Colonial: 2 beds, dresser, Ige mirror, night stnd. Mat-tresses free; excel cond. \$500. 928-5185. MISC - We're moving. Many items free or nom. cost - books, dishes, pots, pans, sofas, chairs, exercise bike. Bob, Ext. 3903. PAPER SHREDDER - Brand new still in box. Royal JS55, Retail \$25+, ask \$20 or best offer. Scott, Ext. 2991 or syuan@bnl.gov. SLEEPY'S TWIN-SZ MATTRESS - bought brand new 4 months ago, \$100. Suchit, 202-330-1887 or sbhattarai@bnl.gov. SOFA BED - gd cond, \$100. Ext. 3327. WINDSOR CHAIRS & TABLE - Six (4 + 2) Col reprod chrs and matching dining table. Pics available. \$700 neg. 744-7052.

## Audio, Video & Computers

HOME STEREO EQUIPT - Technics 4 chnl amp & older Paradigm spkrs w/sub, & Bose 201 spkrs, b/o. tsummers@bnl.gov. IPAD & NINTENDO - 64 Gig WIFI + 3g, factory reset w/orig cbls/chrgr/\$550; Nin.DSI XL, w/Brain Age games, \$140. Ext. 8278. LG 42 INCH 720P HD PLASMA TV – 2 yrs old, lots of inputs, \$300. tsummers@bnl.gov. MACBOOK AIR - 11" scrn, 1.6GHz, 4 gig 1066 MHz DDB3 SDBAM 128 GB Flash Storage, in orig. box, \$1200. Ext. 8278. SONY VAIO LAPTOP - Intel Celeron 2.4 GHz, Wndws XP, 40 GB dr, 1 GB RAM, CD-RW/DVD combo, more, \$25. Ext. 8450. TUBE TV'S - BCA 36" \$25 BCA 13" \$10 Mark, Ext. 3970 or mwahlert@bnl.gov. TV - 27" CRT. Exc. cond. \$50 OBO. Lynda, Ext. 7235 or fitz@bnl.gov. VINTAGE SONY ES RECEIVERS - STR GX-9ES & STR GX909ES, late '80s HiFi, \$100 ea. Pics avai. Bill, Ext. 8150, 447-3839. YAMAHA HIFI SET - Stereo rck, AM-FM tunr, 5-CD plyer, t/tble, dble cass. deck, 2x100W amplfr, 3-wy spkrs; \$50. 744-7052.

DOG - Need home for 10-yr old Rat Terrier, lively, happy little dog, affectionate, well trained, owner terminally ill. Kris, Ext. 7850. EXERCISER - Gazelle exercise machine, \$40. Thomas, Ext. 3085.

JAYCO 2011 29RLS - Travel Trailer, used 6 times, loaded w/all opts dir fr factory, extras, ask \$23,000. Ext. 5684, 872-5074 PET ELECTRIC WATER FOUNTAIN - for cat or sm dog, extra tank, 9 replace filters, more, like new cond/\$30. Ext. 4599. PUPPIES - Purebred Rottweiler, born 5-27-11 ready to leave 7-18-11 3m/4f ask/\$1500. 806-4714. Brian. Ext. 8489. WFIGHT BENCH W/WEIGHTS - adjstble angle, grt cond, incl leg station, 155 lbs wts and bar, pics avail. \$75. Ext. 3932. YAMAHA MOTORCYCLE - '03 Roadstar 1600 runs well, low mil, extras, ask/\$4900. Ext. 5684, 872-5074 or jonesr@bnl.gov. YORKIE PUPPIES - Pure Breed first shots done, now ready to go. \$600. 2 girls & 1 boy, cute as buttons. Ext. 4495, mjones@bnl.gov YOUTH COMPOUND BOW - hardly used, camoflaged, incl. target, 12 arrows, more. photos, \$300/orig, ask/\$150. Ext. 3932.

#### Tools, House & Garden

CONSTRUCTION TOOLS - all kinds, heavyto-med tools, nails, guns, saws, ladder rack 6'6" short bed, much more. Ted, Ext. 8363. HONDA LAWN MOVER - Harmony self-propelled mulcher 21" deck HRM-215SXA. Works, \$50. 744-7052.

PC GAMES - Half Life, Myst, Riven, Deus Ex, Thief II, PC format, opened, used, but in orig packaging. Wayne, wlewis@bnl.gov. SHIH TZU - 6yr old black & grey 18lb small male dog needs good home with single adult owner. All shots. Miriam, 399-3098. STONE - slate (small & large), cobblestones, red bricks, natural stones, some cinderblocks. You pick up. Ext. 7114.

#### Miscellaneous

BABY'S ITEMS - Graco Travel System Stroller, infant carrier & diaper bag \$75, Pics. Ext. 3500 or irachel@bnl.gov. LUGGAGE - 3 pc hard shell, American

Tourister, with 2 soft luggage pieces that match, \$80. Thomas, Ext. 3085 **BARE COMIC BOOKS, MORE - New Comic** 

Book Auctions start every Sun, 9am, www. BIFFcomics.com. biffcomics@gmail.com. ROOCASE - Executive e-Book case, leather/storage flap/magnetic closure, in box, unused. \$25. Donna, Ext. 2716, 897-2736. EXERSAUCER CAR - vibrates, makes sounds, \$20; girls' bike, \$20. 897-2736.

#### Happenings

CRUISE - 7 Day Caribbean Carnival Cruise, Apr 15, 2012: St Thomas, Barbados. St Lucia, St Kitts, St Maarten w/1-fun day at sea. \$846.72 dbl occup balc. Kim, Ext. 2896, 399-3098, khayes@bnl.gov. SUPPORT OF DONA BRANNIGAN Bone Marrow Drive 7/31/2011. DKMS Americas by First Giving. http: tinyurl com/6ahssox. 877-365-2949.

# Classified Advertisements

Current job openings and a statement of job placement policy at BNL are available on the homepage at www.bnl.gov/HR/careers/. To apply for a position, go to www. bnl.gov and select "Search Job List." For more information, call Ext. 2882.

#### **Motor Vehicles**

00 MAZDA MIATA - 76K mi. silver LS 5/ spd, orig owner. \$6,200 neg. Paul, Ext. 7178 or sampson@bnl.gov.

99 HONDA ODYSSEY - 165K mi. 7-pass minivan. a/c. a/t new trsm 110K mi. new rad, clean, gd cond. \$3,900 neg. 745-8633. 99 BUICK CENTURY LE - 130K mi. p/s, p/w, leather, gd cond. \$3,200 neg. Ext. 4431. 99 FORD VAN E250 - 99K mi. gd shape, well maint'd, ladder & tool racks inside. orig mi. \$4,500 neg. Ted, Ext. 8363. 95 HONDA ACCORD EX SEDAN - 145K mi. 4cyl., 4dr., a/t, a/c, abs, loaded, lthr, m/roof, CD w/ USB. \$1,500 neg. Wei, Ext. 2150.

white, a/t, 3.8I V6 Motor, passed inspection June 20. \$1,900 neg. 917-995-5747. 81 DELOREAN GULLWING - 62K mi. orig dealer maint'd, full records, driven reg, v/gd cond. \$20,000 neg. Ext. 7657, 298-7821.

# Marine Supplies

TOW TUBE & TOW ROPE - 2/pers. tube to tow pple w/a boat, W. Marine "Superblaster" tube/\$50, rope/\$20. Ext. 5475, 375-2680.

#### Furnishings & Appliances

AIR CONDITIONER-PORTABLE - Edgestar AP14001HS, 14,000 Btu Top of Line. Grt for lg spce nr windw. \$350. Ext. 4901. BED & DESK - g/size matrix + box, \$350/ neg; desk/\$50; some sm misc. Ext. 2271. BEDROOM SET - Oak, twin bed w/headbrd, 2 dressers, \$300. Thomas, Ext. 3085. BEDS - Barely used high qual mattress & boxspring, full sz \$200, twin futon \$40, qu. mattress+box \$300. Ext. 3327, 830-5762. CHILDREN'S - Ikea dresser \$20, bookcase \$20, armoire \$50. Birch dining table, 100. 830-5762 or diwan@bnl.gov.

## Sports, Hobbies & Pets

4-BIKE HITCH MOUNT RACK - Xport, \$100; Halex Electr. Dartbrd w/LCD scoring, in box, \$20. Donna, Ext. 2716, 897-2736. AQUARIUM-29G W/ FILTER & STAND -\$60, Christian, Ext. 4244, chiaver@bnl.gov. **ROBOT LAWNMOWER - Friendly Robot**ics BI 850, was \$1500+ new, ask/\$400/ firm, can demo. Mark, Ext. 3970.

### Lost & Found

CAMERA - Fuji S5 pro camera and nikon lens. Saved pictures for my kids (two years) I would like to get back a Compactflash card inside. Sunny, Ext. 4398, 240-381-6521. LOST CAT - Calico (brn,whte,ornge) lost on site. She is shy. Any information appreciated. Kathy, Ext. 3832 or klazar@bnl.gov. WEDDING RING - lost, men's, half white gold & vellow, poss, betw, gym & Cavendish Hse, \$100 reward, pls contact Josh, 202-258-9639, joshuabrownclay@gmail.com.

### Free

ADULT CAT - white w/black tail male cat, neutered, friendly, affectionate. Donald, Ext. 7237, 929-6571, sievers@bnl.gov. ELECTRICAL WIRING MANUAL - for a '89 Toyota Camry. Richard, difranco@bnl.gov. FISH TANK - 10 gal, new in box, never used. Sherma, Ext. 4673.

## Wanted

BABY CRIB - to be borrowed for temporary use (this summer). Weiguo, Ext. 2150. BABY CRIB - Wanted to borrow Aug 1-10 (visitors); Happy to pay for use. Alternatively, to buy. Steve, Ext. 3100 or ses@bnl.gov. WHEELCHAIR - Need good working wheelchair. If you or anybody knows of one please call. Thanks. John, 772-359-9198.

# In Appreciation

I would like to thank everyone for your thoughtfulness, kindness and generosity during a difficult time. The loss of my sister is difficult, but your kind words have - Patricia Gregory helped.

### **Real Estate Ads**

These were omitted from lack of space. They are available (with a list of the Services) on an extra page with the Bulletin pdf, www.bnl.gov/bnlweb/pubaf/bulletin/ default.asp or call Ext. 2346 for paper.

# Bulletin

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

# For Rent

FARMINGVILLE – Very Ig legal excel... ...furnished apt. Lg bdrm w/2 twin beds, Ig I/r, eik, Ig bath. No smkg, pets. Use of bkyd & igp. All util incl. \$1,000/mo. John, 732-2472.

MIDDLE ISLAND – Ig, apt, Ig eik w/new stove, fridge, d/w, m/w oven, pantry, l/r, b/r Ig walk-in-closet, full bath, priv ent, incl all utils, no pets please. \$1,200/mo. 786-3620.

RIDGE – rm, v/close to BNL, all util incl w/ int service, new paint & carpet. \$625/mo neg. 917-721-2277.

ROCKY POINT – 2-3 bdrm, 1.5/ba, incl water & gas for cooking. \$1,500/mo. 525-6648. SHIRLEY – Studio for one, stove, kitnette,

//r-bdrm combo, prv ent, ba/nr stores/ beach/mjor hwys/no smkg/pets, 15 min to Lab, 1/mo sec. \$650/mo. 804-8609.

SHIRLEY – grt neighborhd, immaculate 3/bdrm, 1.5 bath home, rent month-tomonth basis, avail. Aug 2011, reasonable, all inclusive, call for details. 295-7216.

YAPHANK – Fully furnished spacious studio apt. for one. Hi spd int./all utils incl. quiet, 5 min. to Lab. No smoking, no pets. Avail. Aug. \$850/mo. Irene, 516-205-6712.

#### For Rent or Sale

SPRING HILL, FL – priv Ranch on Gulf, 70m Orlando, 45m Tampa, nr beach, tennis, park, fly Islip direct, igp in Ianai, fruit trees, SW architecture, 3 bdrm, 2bt, d/r, f/p, 2gar, see review.oktane.net/HouseTour/. \$400/week or \$129,000 neg. 344-5537.

#### For Sale

CALVERTON – Move right in, this charming 2/bdrm, 2/bath cape nestles in a quiet neighborhd w/views of Swan Lake, just mins away from all. \$299,000 neg. 831-0152. SHOREHAM – 3Bdrm Col, 1.5 ba, new W/D, updated kit & bath, Ig wood shed, deck, SWRSD, 10 mins to Lab. \$369,000. Andrea, Ext. 3347, dreashouse@aol.com

#### Services

Services are neither screened nor recommended by the Bulletin.

35MM SLIDE SCANNING – www.pictureperfectscans.com scans & enhances 35 mm slides, photos, negatives & converts them to DVD. Music slideshows avail. Dianne, 928-6469.

A+SINGER W/DUO – Swinging Singer w/ piano/guitar and percussionist, performing in LI & Manhattan since 1992, weddings & events, www.yvettemalavet.com gd prices. Yvette, yvette@yvettemalavet. com.

AIRPORT SERVICE – need ride to any airport or nyc call Lincoln, discounts to bnlers all luxury cars. tony, 589-5555.

APPRAISALS-RESIDENTIAL – Single & Multi-Family/Condo/co-op, Tax Grievance, purchase or refinance of home, etc, Certified & FHA Approved, www.MC-Appraisals.com. 806-4482.

ATTORNEY – Real estate closings, matrimonial/custody, wills & estates, other matters, office located 15 minutes from BNL, discounted rates for BNL employee & families. Free consultation. Anna, 513-6688 or annamartin63@yahoo. com.

AUTO REPAIR – Appel Auto Service located at 20 Linden Place, Port Jefferson, Check out website @ www.appelauto. com. Kevin Appel, 928-1888.

AUTOMOTIVE SERVICE – All makes and models,foreign and domestic,30 years dealer experiece,factory trained professional,Lab discount,. bill, 681-3061.

BABY SITTING – 16 yr old avail to baby sit your toddler/elementary (3-11 yrs old) school child on wkends. References provided on request. 828-6321 or sharuc@ msn.com.

BABYSITTER – 27yr old avail weeknights & weekends, experienced/responsible, CPR/AED/First Aid cert, references avail, call/e-mail for pricing. Michelle, 767-9755 or mscaduto@bnl.gov.

BABYSITTER – I am a responsible 17 yr old rising senior with babysitting experience. Available on weekends and some weeknights. Shoreham-Wading River area. Kimberly. 744-2095. CATERING/PARTY PLANNING – Services, will travel, taste test available upon request and appt. reasonable rates, references avail. Michelle, 774-9136.

CENTRAL AIR CONDITIONING – installations and service, call for free estimate. Chris, 860-4257 or oceanairservices@ hotmail.com.

CERAMIC TILE & MARBLE – Professional installation, no job too small. Licensed and insured, free estimates . Tom, 909-1498.

CERTIFIED PUBLIC ACCOUNTANT – Over 20 years experience & highly referred for 2010 tax prep & accounting. Will come to your home if convenient. Available evenings. Coram, NY, close to BNL. Fred Birnbaum, 732-5725.

CERTIFIED PUBLIC ACCOUNTANTS – Monahan and Company, CPA PC; Full Service CPA firm, call for your 2010 Tax Return needs. (Melville). Thomas Monahan, 414-7191.

CESSPOOL ADVICE – all phases of the sewer and drain business. Thirty years of problem solving long standing relationship with Suffolk County Health Dept, call after 4:30 pm. Arthur, 516-903-8633.

CHAINSAW SHARPENING – \$5/off saw or \$7/on saw, any length chain, can have ready by next day. Peter, 772-4751 or prjhhg@optonline.net.

CHEMISTRY TUTORING – Private lessons in high school AP and Regents chemistry. Experienced instructor with Ph.D. 747-3495.

CHILDCARE – HS Sr student w/drivers license, avail for after school & wkend childcare, all hrs, experience w/young children, Mom works at lab. Nicole, 672-5981.

CHILDCARE – childcare in my Patchogue Home, affordable & reliable. All snacks & meals incl, in process of becoming NYS licensed. 205-8424.

CHIMNEY SWEEPING – Fireplaces, wood, coal and oil flue chimneys, stainless steel caps and liners avail, custom made stainless steel Pre-fab caps and chase pans. Lab discount. 821-5526. Michael, 821-5526.

CLEANING – one time, weekly, bi-weekly clean ups. commercial/professional office cleaning. move in/out once over. Works with local real estate offices. Charlotte Gray, 284-2255 or CharlotteLexie@aol.com.

COMPUTER REPAIR – Expert service for your PC or Mac. No repair too small or large. Certified technician. Reasonable rates, discounts for Firefighters, EMS Personnel and Police. Jon Sadowski, 651-1155 or jon@isitresources. com.

COMPUTER REPAIR – Certified Technician. Virus removal, PC tune-ups, new computer setup and home networking. Reasonable rates. John, 804-0980.

COMPUTER REPAIR SERVICE – 20% Discount for All BNL Employees, Spyware, Viruses, Web Design and More, accepting credit cards/checks www.LIPC-GUY.com. Jesse, 339-0327.

COMPUTER REPAIR SERVICES – Is your computer slow and freezing up? Are you having issues with hardware? Need your data recovered? If so, I specialize in solving your computer issues at affordable rates. Jeff, 682-0092 or jcpcrepairs@ gmail.com.

COMPUTER REPAIR/CONSULTANT – for home & business. Whether complex or simple, repairs or installs, full sys integration, wireless networks & complete business services.Plenty of references/MBA/ cert teacher. 821-2558.

DEFENSIVE DRIVING COURSE – Take a New York DMV approved course online: http://www.lidrivesafe.com, For more information or a traditional classroom schedule call Ed Sierra at 631-821-1013.

DJ ENTERTAINMENT – Tailored to your Affair: weddings, parties, anniversaries, sweet 16, birthdays, more. 40s to 2000s. CCM Reggeton, Merengue, Salsa, much more. Lights, party props, insured. Luis, 457-3506 or Iulesdtaz@aol.com. GAS UTILITY SAVINGS – Save 10% a month off of your Natural Gas bill for both your personal and your business. Restaurants, Buildings, Houses, etc. If you use Natural Gas you qualify. It will take less than 2 minutes to show you the savings. Chris, 913-8169 or stroinc@ gmail.com.

GENEALOGY – advice and research into family history and genealogy, 30 yrs experience, willing to help you or do the work for you. Jim, Ext. 2432, 821-9178 or jchiggins22@hotmail.com.

HAIR STYLIST – Professional - Men, women, children I'll come to you! Call for appointment Dee's Awsome Cuts. 880-0898.

HANDYMAN – Lic & Ins Free estimate. Work done professionally & with TLC. All manner of home repairs, gutting, renovations and carpentry. Bill Hille, 281-4492. Fran, 974-4530.

HANDYMAN/CARPENTER – All Home Improvements-No job too Big or Small. Call Frank for a free estimate today. 816-3020.

HEATING/BOILER/OIL TANK SRVCS – Installation/Repairs – 24 hour service -Oil or Gas, Tank Abandonments, Free estimates, Lowest prices guaranteed. Steve, 813-6583.

HEAVY EQUIPMENT – Backhoe, Bobcat, Lull lift, Dumptruck service for all excavating, grading, land clearing needs. 786-3620.

HOME IMPROVMENTS – Home care co, we are here to help. All jobs Ig or sm, call for more info, Lic&Ins. George, 878-1178.

HOME CARE - PRIVATE DUTY – Personal care & assistance including bathing, dressing, meal prep, medication reminders & general companionship. We work with Lic Nursing Agencies, CARING HANDS of the EAST END. 553-9741.

HOME IMPROVEMENT – Sheet-Rocking, molding, carpentry, electrical maintenance, tiling, remodeling etc. Reliable/ Affordable Handyman. Max, 505-9841 or pryamfamily@verizon.net.

HOME IMPROVEMENTS – All phases of home improvements. Dependable and reliable service. NYS licensed and Insured, www.homesweethomeli.com. Keith, 885-2680 or keithfeeney@optonline.net.

HOME REPAIRS/RENOVATIONS – Professinal home repairs, renov and more, Jack speaks Chinese as well. Jack Tang, 718-697-1655 or huien6666@hotmail. com.

HOME SERVICE – Professional HOME REPAIRS/RENOVATIONS – and more, speaks Chinese as well, huien6666@hotmail.com. Jack, 718-697-1655.

HOUSE CLEANING – at your convenience, weekly, bi-weekly, monthly, discounts for Seniors/Disabled we provide all supplies. Cathy/Vicki, 560-0852.

HOUSECLEANING – experienced reliable housecleaning, references avail. 872-2779.

HOUSESITTING – avail until mid-August in Suffolk Cty. 516-818-2465.

INCOME TAX PREPARATION – RBG Tax Accounting, 35 Years of Experience with Federal and State Returns, Full range of Accounting Services, Book Keeping,Company Startups,General Ledger Creation/assistance. RBG Tax Accounting, 320-9374 or RBGtaxaccting@gmail.com.

INCOME TAXES – All forms including personal and corporate performed by Tax Consultant. Servicing lab personnel for over 35 years. John, 732-2472 or pyatt@ optonline.net.

JUNK REMOVAL – demolition, and recycling services. We take it all away! Call Jared. 576-5220.

KNIFE SHARPENING – "NEW EDGE" quality knife and tool sharpening, BNL Discounts avail. Charles Reilly, 525-2950. LAND CLEARING & STUMP REMOV-ALS – Yards selectively cleared and topsoil raked for grass planting. Stumps, logs, brush, all removed. JD 450 dozer used with custom rake, \$160/hr. Tom, 878-1060 or thomasmuller@optonline. net. MR BOBBY HANDYMAN - carpentary, electrician, plumbing. 617-2202.

NIGHT TIME NOTARY – After hours notary, call for appointment or information. 838-9861 or nighttimenotary@gmail.com. ORGANIZER – Need a hand? Organize and un-clutter your files, home and office; help with paperwork or accomplishing day-to-day tasks. Confidential, reasonable,individualized personal asst. 486-4473.

PAINTING AND POWERWASHING – book now for spring.your home is OUR #1 investment.expert mold and mildew removal. call for free estimate. BNL DIS-COUNT. chris, 827-8686.

PAINTING AND SPACKLING – Interior and Exterior Painting, Wallpaper Removal, Spackling, and Power Washing. Free Estimates, Reasonable Rates, Quality Work. No Job Too Big Or Too Small, We Can Do It All. Chris, 578-7733.

PET GROOMING – Full service dog & cat grooming. Self service dog wash avail, also, pet food & supplies for all of your pets needs. Lindsey's Groom Room, 143 Main St. Kings Park. Lindsey, 292-2655 or ltgroomer@yahoo.com.

PET SITTING – experienced, responsible adult available for pet sitting. Experience in administering meds. References available upon request. Colleen, 289-2122.

PET SITTING BY KRISTEN – Pet sitting/ walking service...there when you can't be! Serving WR, Shoreham, RP, SB, MP, Mt.S & PJ. For pricing call Kristen 631-830-5656. Michelle, 767-9755.

PHOTO BOOTH RENTAL – add that extra excitement to your event w/a fun and exciting way of capturing great memories that will last a lifetime. www.timeandmomentphotobooth.com. Anthony, 903-5015 or info@thetimeandmoment. com.

PHOTOGRAPHIC ARTIST – Digital Event Photography; 42 years experience, Photo restoration, Member NAPP; Photoshop trained/experienced, love to make your images pop; priced to suit call/email for info. Ron, 284-6008 or reoimages@ optonline.net.

PHYSICS AND MATH TUTORING – Tutoring for Physics, Calculus, Pre-Calc and other high school level mathematics. SAT math prep also, \$60/hr. Avail evenings, NYS certified. Steven, 298-5507.

PIANO LESSONS - Classical, all levels in Shoreham, NYSSMA Preparation. 413-6971 or kind\_of\_blue@yahoo. com.

PIANO LESSONS – Music opens hearts, clears minds, relaxes and brings people together. And the piano is the tool that allows us express the joy. Professional Piano lessons by Experienced Piano Teacher Prep for NYSSMA, Talent Shows and Annual Recitals for all ages. . 627-3674.

PIANO LESSONS FOR BEGINNERS – Summer sessions forming now, licensed & retired music teacher. Comfortable home setting. 751-7023.

POWER WASHING – homes, driveways, patios, decks and stain. Reasonable rates. 821-6336.

POWERWASH SIDING – Army Veteran will powerwash and clean your siding, deck and driveway. Lowest prices available. For further details, please call. 245-9609.

PROFESSIONAL WRITING – Professional Writing Services including Resumes, College essays, Proofreading, Editing and Tutoring. Diana, diagall@hotmail.com.

REAL ESTATE – "Everything We Touch Turns To Sold!" Hough & Guidice Realty Inc, buying or selling your home, call us for all your real estate needs, Free Online Market Evaluation. Evan Green, 848-8000 or HouseValueExpert@aol.com.

SCIENCE&LANGUAGE SCHOOL @ SBU – Enrichment Program for children ages 3-15 at Stony Brook U. Classes on Sundays: Math, Physics, Art, Russian, English, French (tests preparation). www. schoolplusstonybrook.org. Marina Polonskaya, 615-4215 or schoolplus\_sb@ vahoo.com. TUTOR – Certified Teacher avail to tutor Elem Ed up to grade 6 and Literacy; birth-12th grd; flexible schedule, \$35/hr, refs furn upon request. Agnes, 516-526-9091 or aggielorenjordy@aol.com.

TUTOR – NYS Certified Earth Science Teacher. \$50/hr. Edward, 821-1013.

TUTOR – creative, dynamic, full-time Resource Room Teacher avail to tutor your child. NYS certified in Elem Ed, Pre K - 6th gr, Special Ed, birth - 6th gr, also certified in Wilson Reading instruction, \$50/hr, 903-9520. Donna, 331-1328 or zipperjd@aol.com.

TUTOR – Physics and math, from high school to college levels. Experienced, reasonable. 626-7645.

VW & AUDI REPAIR – Certified VW tech w/7 yrs dealer experience. All types of repairs, maintenance to eng diag. Dealer parts only, no cheep aftermarket. Also repair many other makes & models. William, 484-9888.

WAITRESS SERVICE – Don't stress, let us assist with your next party! From set up to clean up. Four-hour minimum, \$25/ hour, \$30/hour holiday rates. 741-2190. 569-2203.

WANTED: REPAIR SERVICE – Repair person wanted to fix Keys Discovery Treadmill Model Cov1. Please leave estimate of labor charge on voicemail. Carol, 928-6955.

WATCH BATTERIES – Drop off at lunch, pick up next day at lunch, \$5, lithium higher, no Swiss Army. Angela, 599-1859.

WEBSITE DESIGN / GRAPHIC – Experienced and independent art director specializing in website design, logo's, business identities, magazine ads and marketing. Roya, 513-2926 or design@ studioroya.com.

WEIGHT LOSS PROGRAM – lose weight quickly and safely, Doctor recommended, Clinically Proven, Eat 6 x's a day, No Program fees, No Measuring, No Meetings, No Kidding www.debmccallion. tsfl.com. Debbie Mccallion R.N Health Coach, 835-0725.

BABYSITTER/MOTHER'S HELPER – 15 yr old Longwood Honor Student with Babysitting Certification available to watch your child(ren), your home or mine: nights-weekends-summertime-school breaks. Alexis, 924-6395.

BABYSITTING – Fulltime Summer Babysitting, 17 years old, CPR certified, experience as preschool teacher at BOCES. Michelle, 889-5305.

BOAT STORAGE – Boat hauling & winter storage up to 28'. Trailered boats welcome. 680-0431.

BUSINESS BROKERAGE SERVICES – Looking to buy/sell a business? Please call Moxie Business & Consulting today to arrange a free consultation. Selling? We have many pre-qualified buyers right here on L.I. Ursula, 297-4864 or ucmoxie@aol.com.

CALLIGRAPHY – Will do for wedding invites, big birthday bash, etc. Nina, Ext. 5894, 475-1297.

CARICATURES! – For events and on commission – birthdays, cookouts, mitzvahs, weddings, fundraisers, etc. View rates and samples at: www.smilelines.weebly.com. eruppel@mit.edu. Emily, 502-614-0726. DOGGY DAY CARE – Helen's Happy Hounds is a walking/sitting service that will keep your pup happy while you're gone! Serving Miller PI and surroundings. Info/rates www.helenshappyhoundsli. com. Helen, 681-8675.

ELECTRICIAN – Replace defective outlets, switches and lighting fixtures. Wiring for power and lighting. Violations removed and corrected. Licensed and insured. Steve. 758-7002.

EXPERIENCED CHEMISTRY TUTOR – Ph.D in Chemistry. Available evenings and weekends to tutor all chemistry topics from high school general chemistry through organic. Will work with you on price!. 940-595-5356.

FAMILY IMMIGRATION – experienced attorney, Yale Law School graduate, high quality work and reasonable prices. 917-697-0432.

FINISHER – Hi-End furniture finishing: kitchens, Entertainment Centers, libraries, mantles, drs, etc, all techniques, free estimates and samples, pics upon request. Harold, 201-232-3577 or hhseguras@aol.com.

FLOORING – Carpet, flooring and installation. Works with real estate offices in the area. Raymond Gray, 484-7311 or carpetflooring@yahoo.com. LANDSCAPE SPECIALIST – cleanups, curb side leaf pick up avail, planting, igs, lawn maintenance. Mike. 879-5019.

LIMOUSINE SERVICE – Aquarius Limo-Town cars, Limos, Vans, Hybrids, excel service and prices, www.aquariuslimos. com. 218-3122.

LONG ISLAND WEB DESIGN – Complete Website, Hosting & Email Packages. Get a custom website today at www.Blue-BarnGraphics.com Stefan 428-7246, 928-6469. Stefan, 928-6469.

MAKEUP ARTIST – Professional makeup artist with affordable prices. Look on the web for samples at www.beautymakeupartistry.com, Middle Island, LI location, Proms, weddings, night on the town. 384-6972 or beautymakeup@optonline. net.

MARINE MECHANIC – wanted at reasonable rates. Jim, 772-8573.

MATH TUTORING – Experienced, compassionate instructor, with Phd in Mathematics, and good recommendations is offering private lessons in high school and college level Mathematical subjects. George, 917-715-9026 or yeorgios3000@ vahoo.com. SIGNS,PINSTRIPING & LETTERING – traditional hand painted signs and pinstriping, boat & truck lettering, cartooning. Since 1988. Dom, 576-5195.

SUNDAY SERVICES – St. Andrew's Episcopal Church, Main St, Yaphank: Sunday Services, 8:30am & 10am. A warm familyoriented church! Come worship with us! We look forward to meeting you. info@ standrewsyaphank.org.

TENT RENTALS – Need a tent for your event? We've got you covered! Strong Island Tent Rentals-tents, tables, chairs, lights, contact. Eddie, 926-9417 or strongislandtentrentals@gmail.com.

TERMITES & PEST CONTROL – Please allow us to perform a free inspection of your home. We treat termites, 26 household pests and offer energy-saving pest control insulation. Receive 10% discount with ad. Will, 708-4778.

TOUCH OF PERFECTION PAINTING – Look no further for Perfection Over 25 years professional experience, interior/ exterior,Suede finish specialty applications quality service every time! call for free estimate. Jim, 433-9211.

TRIATHLON COACHING – Whether you are training for a sprint or Ironman distance triathlon, USAT Coach, Robert McKeown will help you reach your fitness goals! www.southshoretricoach. com. 252-5659 or robert@southshoretricoach.com.