

LHC Experiments Eliminate More Higgs Hiding Spots

Two experimental collaborations at the Large Hadron Collider, located at CERN Laboratory near Geneva, Switzerland, announced on August 22 that they have significantly narrowed the mass region in which the Higgs boson could be hiding.

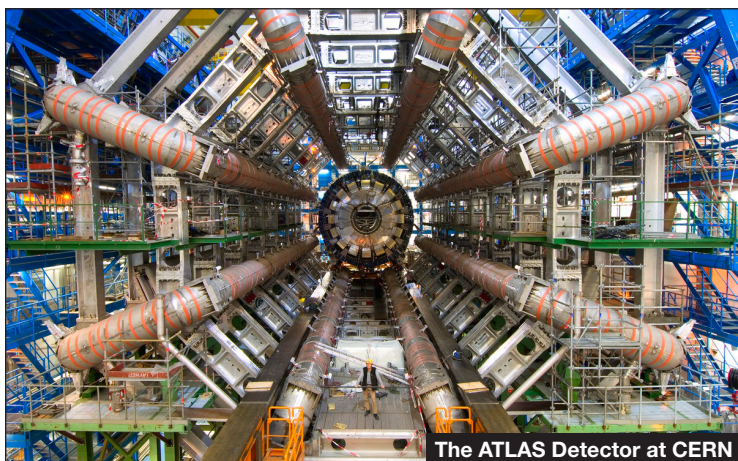
The Higgs particle is the last not-yet-observed piece of the theoretical framework known as the Standard Model of particles and forces. According to the Standard Model, the Higgs boson explains why some particles have mass and others do not.

The ATLAS and CMS experiments excluded with 95 percent certainty the existence of a Higgs over most of the mass region from 145 to 466 GeV. They announced the new results at the biennial Lepton-Photon conference, held this year in Mumbai, India.

"Each time we add new data to our analyses, we close in more on where the Higgs might be hiding," said Darin Acosta, a University of Florida professor and deputy physics coordinator for the CMS experiment.

More than 1,700 scientists, engineers, and graduate students from the United States collaborate on the experiments at the LHC, most of them on the CMS and ATLAS experiments, through funding from the DOE Office of Science and the National Science...

See *Higgs Hiding* on p. 2



The ATLAS Detector at CERN

BNL's Role at the LHC and ATLAS

In addition to serving as the U.S. host laboratory for the ATLAS experiment at the LHC, BNL plays multiple roles in this massive international undertaking. Led by the Physics Department's Howard Gordon as Deputy U.S. Operations Manager, teams of BNL scientists, engineers and technicians across the Lab have provided contributions ranging from construction and project management to maintenance and operations and computing. Some examples:

Design, Construction, Operations

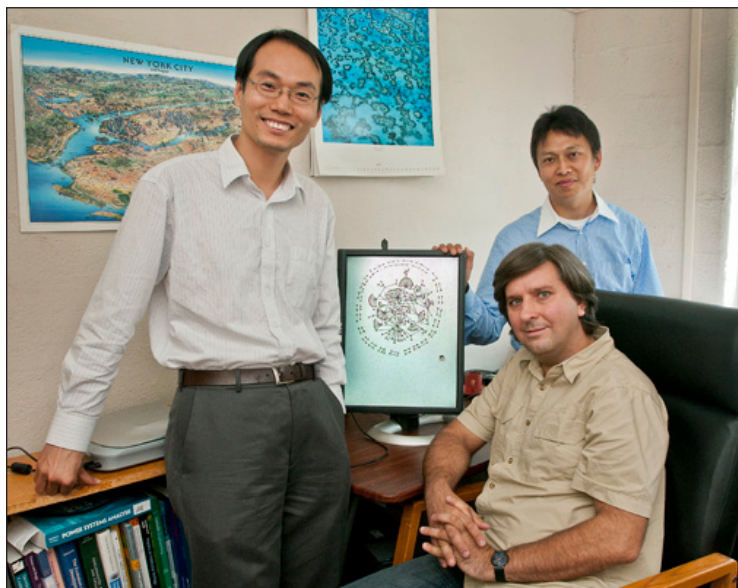
Brookhaven scientists and engineers designed and constructed the 20 LHC specialized dipole superconducting magnets, each weighing more than 25 tons, that guide the LHC's two counter-rotating beams of protons into collision. Tied to this effort, BNL scientists also tested much of the associated superconducting wires and cables for the machine.

In addition, BNL scientists and engineers designed and built key parts of the ATLAS detector, including: pieces of the liquid argon calorimeter — a device that pinpoints electrons and photons emerging from the proton-proton collisions produced in the center of the experiment — and parts of the muon spectrometer — an outer tracking device meant to identify muons, subatomic particles similar to electrons but 200 times more massive.

Computing, Physics

As the sole Tier-1 computing facility for ATLAS in the United States — and the largest ATLAS computing center worldwide — Brookhaven provides a large portion of the overall computing resources for U.S. collaborators and serves as the central hub for storing, processing, and distributing ATLAS experimental data among scientists across the country.

BNL scientists are fully engaged in operating the detector as well as producing physics results from the data collected. BNL scientists have had key leadership roles in several physics groups andSee *BNL's Role* on p. 2



With Sergei Maslov (seated) are Shuinjae Yoo (left) and Dantong Yu.

Integrated 'Knowledgebase' On Plants and Microbes To Aid Energy Research

Program to support DOE goals such as improved biofuel production, carbon sequestration, and environmental cleanup

A group of biologists and computational scientists at Brookhaven Lab and collaborators at Cold Spring Harbor Laboratory and Yale University are about to embark on a DOE-wide effort to integrate and make broadly accessible everything we know or can learn about plants and microbes — from the genetic and molecular to the organism and systems level — in support of DOE missions such as the production of biofuels, sequestering carbon in the ecosystem, and cleaning up environmental pollution. Project leaders have referred to this comprehensive, integrated "systems biology knowledgebase" (Kbase, for short) as a "computational equivalent of a manned mission to Mars."

"This systems biology knowledgebase (Kbase) will be a unique resource, bringing together multiple research communities and empowering them with computational tools to address fundamental biological questions, such as how physical characteristics of an organism can be predicted based on the information encoded in its genome," said Sergei Maslov of the Condensed Matter Physics & Materials Science Department, principal investigator (PI) for BNL's role in the effort. "Biomolecular networks I have been working on over the past 10 years are among the keys to meeting this challenge. The Kbase project that was conceived, piloted, and researched during the last couple of years now enters into the implementation phase."

Seamlessly integrating multiple biological datasets in the Kbase will present considerable computational challenges. However, the team of experienced computer scientists at BNL and participating institutions — led by Dantong Yu of the Computational Science Center (CSC), a co-PI in the project — is ready to tackle these challenges. They will leverage the power of cloud computing, as well as high-performance computing resources across the DOE system of labs including Brookhaven, to handle the anticipated rapid growth in data volumes and com-

This single, integrated "knowledgebase" will greatly enhance scientists' ability to access and share data, and use it to improve the production of biofuels and other useful products.

puting requirements of the Kbase.

The Kbase will also feature social network elements facilitating collaboration and communication among scientists — much the way Facebook simplifies the exchange of information among friends. Shinjae Yoo, CSC, will contribute to developing social network tools as well as to solving current and future needs for data intensive computing at the Kbase.

The Kbase project has been launched following selection of the project team through thorough peer review, and is planned at a level of total effort of about \$12 million per year for five years, funded by DOE's Office of Science. BNL's Maslov is part of the overall Kbase leadership team, which is headed by Adam Arkin of Lawrence Berkeley National Laboratory and also includes Rick Stevens of Argonne National Laboratory and Robert Cottingham of Oak Ridge National Laboratory. Cold Spring Harbor Laboratory co-PIs Doreen Ware and Michael Schatz and Yale University co-PI Mark Gerstein will also take part in the Brookhaven-led component of the Kbase project.

— Karen McNulty Walsh
For more information about this effort, see these news releases from DOE and Cold Spring Harbor Laboratory.

DOE release: <http://science.energy.gov/news/in-the-news/2011/07-07-11/>

Cold Spring Harbor release: http://www.eurekalert.org/pub_releases/2011-07/cshl-sta071511.php

Promoting Diversity — On the Atomic Level

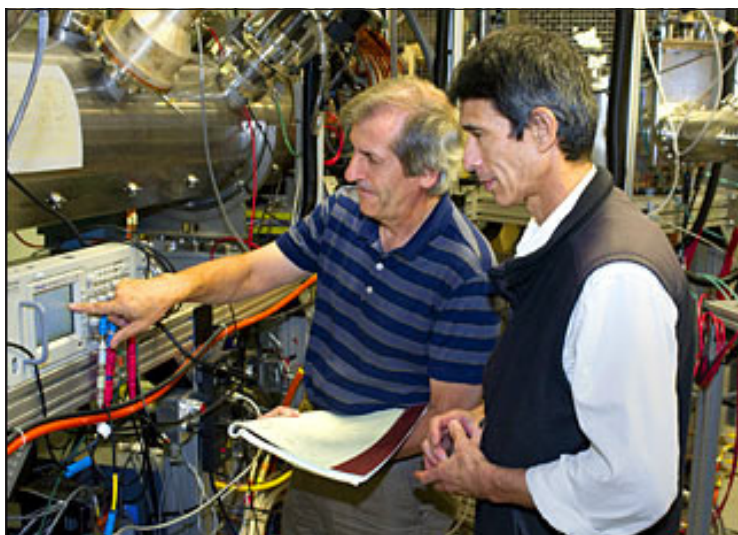
New Electron Beam Ion Source 'EBIS' to feed new kinds of particles to RHIC, NSRL

They come from the midst of exploding stars beyond our solar system — and possibly, from the nuclei of far distant galaxies. Their name, "galactic cosmic rays," sounds like something from a science fiction movie. They're not really rays.

Galactic cosmic rays (GCR) is the term used to describe a wide variety of charged particles traveling through space at high energies and almost the speed of light, from subatomic particles like electrons and positrons to the nuclei of every element on the periodic table. Since they're created at energies sufficient to propel them on long journeys through space, GCRs are a form of ionizing radiation, or streaming particles and light waves with enough oomph to knock electrons out of their orbits, creating newly charged, unstable atoms in most of the matter they traverse.

The Earth's atmosphere and magnetic fields act as shields against high-energy space radiation. But, in outer space, when GCRs collide with the atoms inside living cells, they may damage the cells' ability to repair and reproduce properly. These interactions can lead to mutations that cause cancer, tumors, genetic defects in offspring, blindness, or even death.

Researchers at the NASA Space Radiation Laboratory



Jim Alessi (left) and Adam Rusek at the Electron Beam Ion Source

(NSRL) at BNL have been working to determine the type and extent of the biological risks astronauts on long-term missions in space face from exposure to GCRs and other types of space radiation. At NSRL, researchers simulate space-based environments by using beams of charged particles extracted from BNL's Booster Particle Accelerator to irradiate living cells, tissues, DNA (suspended in solution), and biological specimens.

But because of their heterogeneous nature, creating the laboratory counterpart of a GCR has been a real challenge. Until recently, NSRL researchers could only use a single species of particle beam on any day,

and their choice of elements was limited by the fact that BNL's long-time heavy ion pre-injector, the Tandem Van de Graaff, is only designed to work with certain types of atoms.

"What the Tandem does, it's been doing very well for many years," says Collider-Accelerator Department (C-AD) physicist Jim Alessi. "It supplies beams of heavy ions to the Relativistic Heavy Ion Collider and NSRL. But since the atoms provided by the Tandem have to be negatively charged before they can be accelerated, they must be capable of taking on an extra electron, which not all elements can do."

See *EBIS Injector* on p. 2

CALENDAR

• 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.

— 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: Yogalates

Noon–1 p.m. at the Rec Hall (Bldg. 317). Registration required, Ext. 2873.

Mondays: Pilates

5:30–6:30 p.m. at the Rec Hall (Bldg. 317). Registration required, Ext. 2873.

Mon. & Thurs.: Cardio Kickboxing

\$5 per class. 12:15–1:15 p.m. in the gym (Bldg. 461). \$5 per class. Ext. 2873.

Mon., Tues., Thurs., & Fri.: Tai Chi

Noon–1 p.m., B'haven Cntr (Bldg. 30), N. Rm. Adam Rusek, Ext. 5830, rusek@bnl.gov.

Tuesdays: Hospitality Welcome Coffee

10:30 a.m.–noon at the Rec Hall (Bldg. 317). Meet over coffee. Children welcome. Ext. 2873.

Tuesdays: Knitting Class

2–4 p.m. at the Rec Hall (Bldg. 317). Learn to knit/crochet — all skill levels. Free. Ext. 2873.

Tuesdays & Wednesdays: Zumba

Tuesdays: Noon–1 p.m., in gym (Bldg. 461). Wednesdays: 5:15–6:15pm, at the Rec Hall (Bldg. 317). Registration required, Ext. 2873.

Tuesdays: Toastmasters

Two monthly meetings: 1st & 3rd Tuesdays, 5:30 p.m., Bldg. 463, Room 160. Guests and visitors welcome. <http://www.bnl.gov/bera/activities/toastmasters/>.

Tuesdays & Thursdays: Aerobic Fitness

5:15–6:30 p.m. in the Rec. Hall (Bldg. 317). \$5 per class, or 10 classes for \$40. Kathy Schoenig, Ext. 2818, schoenig@bnl.gov.

Tues., Wed., & Thurs.: Rec Hall Activities

5:30–9:30 p.m. in Bldg. 317. General activities, TV, ping pong, chess, games, socializing. Christine Carter, Ext. 5090.

Tuesday & Thursday: Aqua Aerobics

5:30–6:30 p.m., Pool (Bldg. 478). Registration required, Ext. 2873.

Wednesdays: Ballroom Dance

See notice on p. 3

Wednesdays: Play Group

10 a.m.–noon at Rec Hall (Bldg. 317). Parents meet while infants/toddlers play. For events, see <http://www.meetup.com/BNL-Playgroup>, or call Ext. 2873.

Wednesdays: Yoga

Noon–1 p.m., B'haven Center (Bldg. 30). 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. Andy Mingino, Ext. 5786.

Thursdays: Reiki Healing Class

Noon–1 p.m., Call for location. Nicole Bernholz, Ext. 2027.

Thursdays: Postdoc Social Night

6:30 p.m. ASAP Lounge (Bldg. 462). www.bnl.gov/asap.

Thursday: Judo Class

7:30 p.m. Gym (Bldg. 461). Tom Baldwin, Ext. 4556.

Fridays: Family Swim Night

5–8 p.m. Pool (Bldg. 478). \$5/family. Ext. 2873.

EBIS Injector from p. 1

Noble gases, for instance, resist the addition of electrons to their atomic structure and cannot be accelerated by the Tandem, so these common components of GCRs have been unavailable for study at NSRL.

Now, EBIS

This spring, however, the new Electron Beam Ion Source (EBIS), came online. Jointly funded by NASA and DOE's Office of Nuclear Physics, the new \$20-million preinjector for RHIC and NSRL is capable of making and accelerating ions of almost every element in the periodic table.

"It's a big improvement," says C-AD physicist Adam Rusek. "We're trying to look at how living cells and DNA react to the kinds of exposure to radiation we don't get on Earth — and energetic ions of everything are out there in space. Of course,



Summer Sundays Season Comes to a Close

By Nora Detweiler, Community, Education, Government & Public Affairs

Another Summer Sundays program has come to an end with more than 5,700 visitors braving extreme weather — from heat waves to heavy rain — to learn about the Lab's cutting-edge science and visit our world-class facilities.

For five consecutive Sundays in July and August, we welcomed visitors to the Relativistic Heavy Ion Collider, National Synchrotron Light Source (NSLS) and first-ever public tour of NSLS-II, as well as the Center for Functional Nanomaterials, Science Learning Center, National Weather Service, and the BNL Firehouse.

Visitors included neighbors from local communities and guests from around the world —100 middle school students from China attending summer camp at Hofstra University, 60 of South Korea's brightest high school students on a trip to visit Ivy League colleges, and others from Australia, as well. There were Cub Scouts, Girl Scouts, a singles club "meet up," and a Cooper Union College alumni-get-together that drew visitors from Pennsylvania, New Jersey, and New York City.

Science talks on an array of subjects such as nanotechnology, climate, dark energy and evolution of the universe, solar energy research, the Large Hadron Collider's ATLAS experiment, natural resources and wildlife management, forensics at the NSLS, and hurricane preparedness were well attended and very well received.

Einstein came alive in Berkner Hall where the laser lights were spectacular, chemistry was magical, and, of course, physics was phenomenal with Mr. Fish! The Bio-Bus, a carbon neutral laboratory on wheels, rolled in from New York City to reinforce the lessons learned.

The program had a great deal to offer visitors of all ages. That being said, it would not have been possible to provide so much to so many without the very generous efforts and time given by the more than 400 volunteers comprised of DOE representatives, BNL scientists, facility users, staff, retirees, summer students, and even family members who made visitors feel welcome. Thank you to those who participated and made Summer Sundays 2011 so successful.

So, what are you doing next summer?

9/11 Remembrance Memorial Service, 9/6

The entire Lab community is invited to a 9/11 remembrance service to be held at 3:45 p.m. on Tuesday, September 6, at the site of a new 9/11 memorial that is located in front of Berkner Hall.

Defensive Driving Course in Two Parts: 9/22, 29

The next six-hour Defensive Driving (Point & Insurance Reduction) course will be held in two parts on consecutive Thursdays, September 22 and 29, in Berker Room B on the 22nd and in the Large Conference Room Building 490 on the 29th; each night from 6 to 9:15 p.m. The course is open to BNL, BSA, and DOE employees, BNL facility-users, contractors, and other guests, and their family members. The cost is \$33 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/>.

nobody is going to run an experiment using all the elements on the periodic table, but now we can provide many more particles than we could with the Tandem accelerators, which is more representative of galactic cosmic rays."

EBIS is also capable of switching very quickly between different species of ions, so NSRL researchers will be able to integrate multiple ions into a single simulation, rather than waiting for another element to become available.

"We've already shown through our research at NSRL that live cells elicit different gene expression patterns based on the kinds of radiation they're exposed to," says NASA biologist Michael Story. "The frequency of cell transformation is much higher with energetic heavy ions than it is with x-rays or gamma rays. These types of transforma-

tions are the first step in the carcinogenic process, which can lead to cancer. Our goal now is to perform further studies of space radiation so we can determine with better accuracy what the risks are for astronauts spending longer and longer amounts of time in space — and to test and develop better protective measures against those risks."

"EBIS is the result of a long and fruitful relationship between the Department of Energy and NASA," said Derek Lowenstein, previous C-AD Chair and now NSRL principal investigator, who wrote the original proposal for EBIS more than 20 years ago. "This is a major achievement for DOE, NASA, BNL, and the experimental community. It's a win-win situation for everyone." — Emily Ruppel For more information, see www.bnl.gov/today/story.asp?ITEM_NO=2544.

BNL's Role from p. 1

...in the trigger, including Ketevi Assamagan as Higgs Co-Convener; George Redlinger as Supersymmetry Co-convener; Peter Steinberg as Heavy Ion Co-Convener; and Srinu Rajagopalan as Trigger Convener. The Lab also houses one of the three U.S. ATLAS Analysis Support Centers and organizes periodic "Jamborees," which bring together collaborators to work on physics analysis.

Future Upgrades

Brookhaven has leadership roles in various efforts for the upgrade of the ATLAS detector, including constructing the new silicon tracker, liquid argon electronics, and the new muon chambers.

Brookhaven also contributes to the commissioning and future upgrade of the LHC itself in two areas: accelerator physics and superconducting magnets. This work is carried out as part of the U.S. LHC Accelerator Research Program (LARP) in collaboration with Fermilab, Lawrence Berkeley National Lab, and the Stanford Linear Accelerator Center. The ultimate goal of the upgrade program is to increase the rate of particle collisions, a measure known as luminosity.

Much of the work for the U.S. LHC Accelerator Research Program uses Brookhaven's Relativistic Heavy Ion Collider as a "test bed" for the beam-based development of devices destined for the LHC. The LHC tune and chromaticity feedback hardware and algorithms, for example, were developed through collaboration between LARP and CERN in the RHIC collider. LARP will continue to perform R&D aimed at supporting LHC upgrades that strive to increase the LHC luminosity even further.

— Liz Seubert

Higgs Hiding from p. 1

...Foundation. BNL serves as the U.S. base for participation in the ATLAS experiment, and Fermi National Accelerator Laboratory serves as the U.S. base for participation in the CMS experiment.

"The more data the experiments collect, the more scientists can say with greater statistical certainty," said Konstantinos Nikolopoulos, a BNL physicist on the ATLAS experiment. "The LHC has been providing that data at an impressive rate. The machine has been functioning beyond expectations."

Scientists on ATLAS and CMS both announced seeing

small, possible hints of the Higgs boson at the European Physical Society meeting in July. Those hints have become less pronounced as scientists have increased the amount of data in their analysis.

"These are exciting times for particle physics," said CERN's research director, Sergio Bertolucci. "Discoveries are almost assured within the next twelve months. If the Higgs exists, the LHC experiments will soon find it. If it does not, its absence will point the way to new physics."

The experiments are on track to at least double the amount of data they have collected by the end of the year.

Service Anniversaries

The following employees celebrated a service anniversary during May 2011:

- 35 Years —
- Jack PresesChemistry
Nancy Lofaro GARS
Lawrence Kleinman Env. Scis
James Yerry Lab Prot
Frederick Molone..... Maint & Fab
Brian Mayo..... PPM
James Durham Site Svcs
- 30 Years —
- Michael Mapes C-AD
- 25 Years —
- Ramesh Gupta.....Magnet
Kimberly Boomer..... Bus. Ops
Stephen Springston..... Env. Scis
Martin Fallier Photon Scis
Shuchen Feng..... Photon Scis
- 20 Years —
- Anthony Arno III..... C-AD
Beth SchwanerITD
Michael DePhillipsC’Intel
Tracey Fountaine Lab Prot
George Yancy Lab Prot
Bethann Gilman PPM
Steven Stein QA
Brenda TurnerStaff Svcs
- 10 Years —
- Steven Dierker Dir’s Office
Sudeep Mitra Env. Scis
Patrick Folk..... En & Utils
Cynthia Biancarosa CEGPA
Diane DiBlasi HROM
James Stolfi Photon Scis
Lin Yang Photon Scis

Arrivals & Departures

- Arrivals —
- Yimin Mao Photon Sciences
- Departures —
- Jonathan Allen CFN
Lawrence Carboni C-AD
Linda JonesFiscal
Matthew Menga..... C-AD

Starfish Program
BERA Offers Swim Lessons
For Your Four-Year-Old

On seven Saturdays, from 9/17 through 10/29, at 9 to 9:30 a.m. or 9:30 to 10 a.m. (you will be notified of your child’s class time) at the BNL Pool, swim lessons will be offered for children of BNL families. The cost will be \$80 per child.

To be eligible, the children must be 4 years old by June 2011. Children should come dressed in their bathing suits and ready for their class a few minutes early.

If you are interested, please send a check made out to BERA and return by to the Recreation Office, Bldg. 400, by September 9. Include your child’s name, age, and date of birth; your own name, BNL Life Number, your home and cell or other emergency phone numbers, and email address, printed clearly. For more information contact Joanne Rula at the Recreation Office, Ext. 2873.



BNLers Joe and Erin Gettler enjoyed learning to dance during the past beginner session — “We have a better time at weddings now that we know some steps,” they said.

Blood Donations = Saved Lives

Sue McCafferty, a registered nurse in the Lab’s Occupational Medicine Clinic, always greets visitors to the clinic with a big smile. But, like other nurses, McCafferty has occasionally lost that smile when she has witnessed “life and death” moments for some of her patients.

“Before joining BNL four years ago, I worked at Stony Brook University Hospital where I saw firsthand the difference a blood donation makes,” said McCafferty. “It is absolutely true that blood donors help save lives.”

McCafferty, who is a blood donor herself, says blood donations have also impacted her personal life. Both her mother and mother-in-law were diagnosed with cancer a few years ago and had to receive blood and platelet



transfusions. “I stood by their bedsides and watched how the transfusion almost immediately improved their physical condition,” she said. “It was like giving water to a wilted plant.”

— Jane Koropsak

BNL Blood Drive: Thursday, 9/15

BNL’s next blood drive will be held on Thursday, September 15, from 9:30 a.m. to 3 p.m. in the Brookhaven Center. Donors must be 17 to 75 years of age, in good health, and weigh over 110 lbs. Restrictions may apply to individuals from the UK and Europe. Donors should have a photo ID and know their social security number. To make an appointment, go to <http://www.bnl.gov/hr/blooddrive/> or contact Liz Gilbert at Ext. 2315.



Adiós, Irene! BNL reopened earlier than expected on Monday, August 29, after Hurricane Irene ravaged the East Coast. Here, aw downed tree branch is spotted in front of Bldg. 830.

Wanna Play Some Volleyball?

For its 2011-2012 season, the BERA Volleyball League resumes play on Monday, October 10. The league offers teams for players of every ability and skill level, so come and join in the fun! All players are invited to get warmed up for the season by playing open volleyball in the gym on Monday and Wednesday nights. See the Doodle poll at <http://www.doodle.com/5mrdv73scz5wq> to find out when play will begin on those evenings. Also note that there will be more open play at the gym on Saturdays after Labor Day.

Captains’ Meeting, 9/21

Captains interested in fielding teams for the league should attend the captains’ meeting on Wednesday, September 21, at noon in Berkner Hall, Room A. Bring a signed roster form with you. For more information, visit the league’s web site at www.vb.bnl.gov, or contact Marie Van Buren, Ext. 4727 or vanburen@bnl.gov; or Alain Domingo, Ext. 7060 or domingo@bnl.gov.

Come In Swinging!

Ballroom Dance Lessons Resume September 7

The BNL Ballroom Dance Club will start the following new series of six lessons on Wednesday, September 7, in the North Ballroom at the Brookhaven Center.

- 5:30 p.m. Beginner East Coast Swing
6:30 p.m. Intermediate Bolero
7:30 p.m. Intermediate Quickstep

The cost is \$45/person for the 6-week series. New participants can try one class before they pay for the series. Note that the times have been put back 15 minutes from previous sessions. There will be no classes on September 14.

For registration information contact Vinita Ghosh, Ext. 6226, ghoshvj@bnl.gov; Arup Ghosh, Ext. 3974, aghosh@bnl.gov; Mike Hanson, Ext. 2947, hanson@bnl.gov; or John Millener, Ext. 3853, millener@bnl.gov or go to www.bnl.gov/bera/activities/dance/.

In Memoriam

Kenneth Ward, who became a steamfitter A in the Plant Maintenance Division on October 25, 1965, and retired from the Plant Engineering Division on March 28, 1981, died on March 6, 2009. He was 86.

William Lebitski, who joined the Supply & Materiel Division as an office mechanical repair mechanic and rose to group leader, died at 85 on January 19, 2011. He had retired on May 31, 1989.

Benon Bielski, who joined the Chemistry Department as a research associate on August 4, 1958, was granted tenure in 1977, and retired as a senior chemist on December 31, 1994, having served the Lab for 36 years, died on April 18, 2011. He was 83. After retiring he continued with his research as a guest collaborator until October 31, 1997.

David Johnstone, who joined the Security Division as a firefighter on August 14, 1961, and retired as an electrician A from the Plant Engineering Division on April 17, 1992, died at 82 on April 28, 2011. He had left the Lab for two years between September 1971 and June 1973.

Herbert Lutz, who joined the Alternating Gradient Synchrotron Department as a technician A on December 17, 1956, and retired as a technical associate I on August 31, 1989, died on May 22, 2011, at the age of 86.

Robert Caulfield, who came to join the Staff Services Division as an auto truck mechanic on January 26, 1976, and retired on May 2, 2003, as an auto truck mechanic group leader, died on May 30, 2011. He was 70.

Josephine Candiano, who joined the Applied Mathematics Department as a keypunch operator B on May 31, 1966, and retired as a senior data services assistant on June 28, 1985, died at the age of 87 on July 4, 2011.

Basil DeVito, who came to the Alternating Gradient Synchrotron Department on September 16, 1957, as an assistant engineer and retired as a mechanical engineer on May 14, 1993, died at the age of 80 on July 30, 2011.

Fred Kuehl, who joined the Alternating Gradient Synchrotron Department as a junior technician on August 29, 1960, and after 34 years left the Lab on September 30, 1994, as a technical research associate, died on August 16, 2011. He was 74.

Chester Bubka, who on March 10, 1958, became a helper A in the Central Shops Division, and retired as a tool and instrument maker group leader, died at the age of 79 on August 17, 2011. He had retired on May 31, 1990.

Families and colleagues may send memories of life experiences, contributions, and achievements of BNLers who have died, to appear on the BNL Obituary webpage at www.bnl.gov/bnlweb/pubaf/bulletin/obit/. Please email the article and photo, if you have one, to bulletin@bnl.gov, with “Obituary” in the subject head. If you do not have email, contact Liz Seubert, (631) 344-2346.

CALENDAR

— WEEK OF 9/5 —

Monday, 9/5

Labor Day, Lab Closed
The Lab will close today in observation of the Labor Day Holiday. No Bulletin will appear on Friday, 9/9.

Tuesday, 9/6

***9/11 Remembrance Memorial**
3:45 p.m. In front of Berkner Hall. The entire Lab community is invited to a 9/11 remembrance service at the site of a new 9/11 memorial.

Thursday, 9/8

BSA Distinguished Lecture
4 p.m. Berkner Hall. Daniel Nocera, Massachusetts Institute of Technology, will talk on “Harnessing Energy From the Sun for Six Billion People — One at a Time.” The lecture, sponsored by BSA, the company that manages BNL, is free and open to the public. Visitors to the Lab 16 and older must carry a photo ID.

— WEEK OF 9/12 —

Mon.-Fri. 9/12-15

Discount Week
11:30 a.m.-2 p.m. Berkner Hall lobby. Each day will feature one or more representatives from discount stores, nearby hotels, and phone companies to explain their services, usually with discounts for Lab employees. These include **Crown Plaza** Hotel of Medford, 9/14; **PERKS**, 9/15; **Verizon**, 9/16; **Springhill Suites Hotel of Yaphank**, and **Costco**. Consult the BERA website at www.bnl.gov/bera/ for more exact dates nearer the time.

Thursday, 9/15

***BNL Blood Drive**
9 a.m.-3 p.m. Brookhaven Center. Donations of blood urgently needed. See notice at left.

— WEEK OF 9/19 —

Wednesday, 9/21

471st Brookhaven Lecture
4 p.m. Berkner Hall. Michiko Minty of the Collider Accelerator Department will talk on “Keeping RHIC’s Beam Tight and the Orbit Right: Precision Control of Accelerating Beams.” All are welcome to this free talk, open to the public. Refreshments will be offered before and after the talk. Visitors to the Lab 16 and older must carry a photo ID.

New BERA Trips
Go on Sale 9/9

Bronx Zoo - Sat. 10/8. \$25 for Ultimate Experience & bus. Same price for adult or child. Under 2 years: free if on parent’s lap.

Atlantic City — Sat. 10/22. Show Boat. 8 a.m. depart Lab, 8 p.m. depart AC. \$30/person with \$30 slot play back. Ages 21 and over only.

NY Greenwich Village Guided Ghost-Walking Tour — Sun. 10/30. \$25/person for tour & coach bus. Ages 18 and over only.

NY City Do as You Please to Chelsea Market-High Line-Eataly area — Fri. 11/11. Lab Holiday for Veteran’s Day. \$15 per person.

Note that **Hospitality Coffee** and **Knitting** start on Tues. 9/13; **Play Group** starts on Thurs. 9/15 at the Rec Hall.

FITNESS classes start soon. Make that move & commitment to good health! See www.bnl.gov/bera/recreation/fitness.asp. Pool, Gym, Classes!

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

01 HONDA CIVIC LX COUPE – 138K mi. blk, new tranny, rem start syst, great cond, fuel efficient. \$2,750 neg. 516-241-1567.
00 MAZDA MIATA – 76K mi. Silver LS-leather, Bose, orig owner, all maint records. \$6,500 neg. Ext. 7178, 807-4933.
00 NISSAN MAXIMA – 133K mi. excel cond, a/t, antilock brakes, p/s, p/w, cassette/cd, black, must sell. \$3,600 neg. 821-4318.
94 CADILLAC DEVILLE CONCOURS – 54K mi. mint, low mi, gar, Northstar v8 all opts. \$8,500 neg. Dominick, Ext. 5030.
91 HARLEY-D FXSTS SOFTAIL SPRINGER – 11K mi. blk w/5 gal tanks, new Metzlers F&R, more. \$8,400 neg. 661-4892.
89 DODGE DYNASTY – 62K mi. 4 d. sedan, color tan, low mi, excel mech cond, 1/owner. \$2,500 neg. 942-5825.
81 HONDA CB750 CUSTOM – 19.8K mi. runs well, windshield & rear rack, inclc bike cover & manual. \$1,950 neg. 741-9169.

Boats & Marine Supplies

31' BENETEAU OCEANIS 300 – performance cruiser, in-mast furler, jib furler, Fibrgls Hull, Inboard Diesel. \$47,000. Ext. 4846.
16' ALDEN OCEAN SHELL – w/Oarmaster l sliding seat unit. Excellent trainer. \$750 w/wood spoon oars, \$550 without. 661-4892.
05 CONTINENTAL BOAT TRAILER – HD (10,160 GVW)for up to '27, strlss steel disk brkes w/hydrlic actuator, more, 516-647-6703.
BARIENT 27 S/T WINCHES – 1/pr, self-tailing, 6-3/4" dia, base, 7" h, 3-1/4" drum dia, \$1,000/both. Charles, Ext. 7035.
SAILBOAT JACK STANDS – set of 4, Brownell SB3s, 36"-54", flat tops. Ext. 2788.

Furnishings & Appliances

ANTIQUE SEWING MACHINE TABLE – refinished, 7 drivers, cast iron base, folding oak top. Modif to fit mod. Singer. \$50.Ext. 4019.
BED, KING TEMPURPEDIC – middle grde, w/mattr, bxsprgs, frmme, hdbdrd, non smkg home, 6yrs old, manf. warr. ask/\$1500. 374-1484.
CLOTHES RACK – in Chrome w/beige cloth protective cover/\$25, call for pics. Nina, Ext. 5894, 475-1297 or vbri1@aol.com.
GAS STOVE – white gd working cond, pics upon request,\$150/neg. Shaniece, Ext. 5392 or scbell@bnl.gov.
GIRLS' BEDROOM SET – incl twin trundle bed, dresser, desk and chair, beige wood, ask/\$500. 419-6854.
KITCHEN TABLE SET – BERMEX, Maple table, 8 chrs, all solid wood, opens to 60x60 w/leaf, ask/\$850, pic avail. 374-1484.
PLANT STAND – elegant black, 3 levels, 6' tall, parts fit in a sm box, easy to assemble, pic avail, \$30. Paul, Ext. 2899.
ROTISSERIE – Big George Foreman, counter top, elect, lg size, great for big family meals, \$40. porfin@bnl.gov.
SIMMONS CRIB & DRESSER SET – color light wood, incl new day bed attachment, excel cond, like new ask/\$400. 946-9673.
SLEIGH BED – q/size, iron, antique bronze finish w/frame, hdware, \$225/obo. 395-9610.
TRASH COMPACTOR – G/E S/S, never used, in orig box, cost/\$434, u-pic-up/\$100, 4 mi to Lab, Mr. Mike, Ext. 4028.

Audio, Video & Computers

BLACKBERRY TORCH – AT&T service, just phone, 100\$. Bryan, Ext. 2765 or bmarino@bnl.gov.
CAMERA – Panasonic Lumix DMC-FH20R, 28mm wide angle,8X optical zm, 720 HD movies, case, more. \$115/neg. 344-4290.
DELL 17" LCD MONITOR – Dell E172FPB 17" LCD TFT Monitor. \$75. Stephen, giordano@bnl.gov.
DESKTOP PC – AMD Phenom Quad Core, 4GB RAM, 500GB HD, 23" LG LCD, W7 Pro fresh/clean install. Fast! \$500. Ext. 3970.
LINKSYS WIRELESS: – 1) PCI Adapter, RangePlus. WMP110. \$20. 2) Notebook Adapter, WPC54G. \$20. giordano@bnl.gov.
UNLOCKED BLACKBERRY FLIP 8220 – smart cellphone, incl all, runs well, \$50. Ext. 5049, 882-2706 or wfu168@yahoo.com.
WINDOWS VISTA BUSINESS – 20 available – COA and media. \$40 each. Mark, Ext. 3970 or mwahler1@bnl.gov.

Sports, Hobbies & Pets

DOVER MASCAR RACE – 2 tickets, Sunday, Oct 2nd, Section 110, Row 42, Seats 1&2, ask/\$150/both. 325-9578.
GUITAR STRINGS, CAPO – sev. sizes, elect / acoustic, GHS, D'Aquisto, Gibson brands, Kaiser capo. \$30/all. Ext. 7114.
PLAY SET – Purchased at BJ's Wholesale. Gd cond, pictures available \$350. Lisa, 472-3488 or stelmach@bnl.gov.
TREADMILL – Pro-form 1100, 2 yrs old, barely used, 12 built-in Pers.Trainer Wrkouts, space saver, pd\$800, ask/\$300. 419-6854.

Miscellaneous

ATLANTIS AQUARIUM TICKETS – in Riverhead, discount/\$13/ea, no expiration date. Ext. 5873.

BOUND NATIONAL GEOGRAPHICS – 6/ mo/ea, 1911-1915 gd cond, \$35/ea; post 1915 \$10/ea. 581-0038.

MEDELA BREAST PUMP – double pump w/all accessories/\$160. Nina, Ext. 5894, 475-1297 or vbri1@aol.com.

Happenings

CYCLETRONS ANNUAL BAR-B-QUE – Join us at the Gazebo, Sat. Sept.10. noon till?, Motorcycles, DJ, games, Food, 50/50, family & friends welcome. Tx \$5pp. Info Andy Mingino x5786. Frank, Ext. 2022.

Free

CAT – Short hair B&W female about 3yrs old well behaved, fixed, healthy. Warren, Ext. 2080, 880-3822 or wejappe@gmail.com.

Wanted

ADOPT-A-PLATOON – Monetary donations gratefully accepted towards mailing shipments to our platoon stationed overseas and to send goodie packages to BNL family members. Thank you. Joanne, jrula@bnl.gov.
BNL FAMILY MEMBERS IN MILITARY – If you have a family member that has been deployed overseas, please contact Adopt-a-Platoon so we may send them a goddie package. Joanne, jrula@bnl.gov.
BOXTOPS & CAMPBELL'S UPCS – please send to bldg 911A. Nina, Ext. 5894, 475-1297.
ENGLISH TEACHER – for 8th Grade student. Yogi, Ext. 2770, 228-4527.
FAX/MULTIFUNCTION – any brand/cond, cheap, just need to send fax. Karl, Ext. 3116.
LITTLE TIKES WAGON – Little Tikes wagon in good condition. David, Ext. 4019.
NOKIA THIN PIN CHARGER – If someone is not using it. I would like to borrow it for few weeks. Thanks. jshah@bnl.gov.
POOL LADDER – reqd for a 18' agp, preferably w/a safety feature, ladder can be placed upright after use, 475-1297.
SNOW MOBILE TRAILER – need a 2/sled trailer either open or closed. John, Ext. 4065 or jguido@bnl.gov.
SOCCER EQUIPMENT – need size 5 soccer balls & training equipmt for U17 boys team. Ext. 7108 or bromfield@bnl.gov.
WASHING MACHINE – reasonable price. Ext. 2589, 730-6184 or pierrot@bnl.gov.

Lost

CAR KEYS – LOST at BNL!! Camry car keys w/red Apple Honda "cham". Stephanie, Ext. 5062, 566-6905 or shamilton@bnl.gov.

For Rent

BELLPORT – upstairs in country home seeking mature, clean, non-smkg adult w/no pets, 2/bdrm, 1/convertable to living area, bath, use of kitch. \$1,000/mo. 347-218-1939.
MIDDLE ISLAND – 1/bdrm condo in gated com., gym, clubhse, lg pool, incl heat, 1/mo sec, tenants moving out but ready ASAP. \$1,150/mo. Susan, slattuca@bnl.gov.
ROCKY POINT – 2nd flr legal 1 br apt, new full bth, eik, l/r, priv ent, quiet st, no smkg, access to priv beach, Incl water, heat, cable TV & wireless net, 1 mo sec. \$1,025/mo. 494-5474.
RONKONKOMA – 1 bdrmm apt, all incl. \$950/mo. dmcarthur@bnl.gov.
SHOREHAM – spacious, 1 bdrmm furnd studio apt, sep ent, full bath, kitch, patio; big yd, sep, thermostat, int, cable TV, no smkg/pets, 7 min to Lab, avail 9/11. \$795/mo. 821-4318.
SOUND BEACH – 2 bdrmm hse, w/d, plus util, no smkg/pets. \$1,000/mo. Jim or Liz, 744-7798.
WADING RIVER – 3 bdrmm hse, 2 1/2 ba, jacuzzi, 2-cr gar, kitch, Indry, l/r, d/r, b/mt, deck, 1 ac. WRSD. Pet OK w/pet/sec. Crdt chk, sec. dep req. Utls not incl. \$2,900/mo. 943-9107.

For Sale

SHOREHAM – 3 bdrmm, 1.5 bath, Colonial on cul-de-sac, updated bath & kitch w/ stainless appli, den/fp, new w/d, deck, woodshed, SWRSD, 10 min to Lab. \$364,000. Andrea, Ext. 3347, 744-8793.
WADING RIVER – cottage by the sea, gd starter home, updated Cape 2-3 bdrms, 2 bath, new kitch/roof/windows/carpet, 5 houses from prvt beach. \$219,000 neg. Pat, 929-4637.

In Appreciation

Sincere thanks to my friends at BNL, for your thoughtful & meaningful participation in my retirement celebration, and making it such a special and memorable occasion. I was overwhelmed with all the good wishes! Will miss you.

— Linda Jones

Services

Services are neither screened nor recommended by the Bulletin.

35MM SLIDE SCANNING – www.pictureperfectscans.com scans & enhances 35 mm slides, photos, negatives & converts 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. john, 589-5555.
APPRAISALS-RESIDENTIAL – Single & Multi-Family/Condo/co-op, Tax Grievance, purchase or refinane of home, etc, Certified & FHA Approved, www.MC-Appraisals.com. 806-4482.

ATTORNEY – Family immigration: experienced attorney, Yale Law School graduate, high quality work and reasonable prices. 917-697-0432.

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 experience, 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 – I am a responsible 17 yr old rising senior with babysitting experience. Available weekends, some weeknights. Shoreham-Wading River area. Kimberly, 744-2095.

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 – experienced, responsible college student looking for any (temporary/permanent) babysitting work to help w/ bills, reasonably priced. Brittany, 801-889-8358 or bbar6685@yahoo.com.

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

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.

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

CERAMIC TILE – professional installation, no job too small, Licensed and insured, free estimates. Tom, Ext. 4440.

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 – CPA PC; Full Service CPA firm, (Melville). Thomas Monahan, 414-7191.

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 TUTOR, EXPERIENCED – 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.

CHILD CARE AVAIL. SACHEM AREA – High School Student in Sachem area available for babysitting all ages. 3 years experience references available. Own transportation available. Mom works for Lab. 972-5726.

CHILD/DAY CARE AVAILABLE – Loving, experienced mom w/references avail for child-care M-F 6am-6pm in my home in Colonial Woods/Whispering Pines, 1 mi from Lab Evening hours available. Debbie, 662-5203.

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. Michael, 821-5526.

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

CLEANING SERVICE – we provide all supplies, Bonded and Insured, available at your convenience. Delgis, 575-5896.

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.LIPCGUY.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 jccprepairs@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.

DENTAL CLEANINGS – Farmingdale Dental Hygiene student looking for patients, \$25 cleanings, \$25 xrays, call for more details, appointments in Fall & Spring. Allison, 626-8274.

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 lulesdtaz@aol.com.

DOG GROOMING – shaggy dog grooming service in Miller Place on 25A, we also will board your animal when you are on vacation at reasonable rates. 849-5383.

DOGGY DAY CARE – Helen's Happy Hounds walking/sitting service will keep your pup happy while you're gone! Serving Miller Pl and surroundings. Info/rates www.helen-shappyhoundsli.com. Helen, 681-8675.

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

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. Raymond, 484-7311 or carpetflooring@yahoo.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 Awesome Cuts. 880-0898.

HANDYMAN – Lic & Ins Free estimate. Work done professionally & with TLC. All manner of home repairs, gutting, renovations and carpentry. Bill Hille, home(281-4492)cell(974-4530). Fran, Ext. 3309.

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 CARE - PRIVATE DUTY – Personal care & assistance including bathing, dressing, meal prep, medication reminders & general companionship. 553-9741.

HOME CAREGIVER/COMPANION – mature, dependable, experienced in providing a caring, safe environment for your loved-one, evenings, overnights, refs avail. Paula, 834-6956.

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, Keith, 885-2680 or keithfeeney@optonline.net.

HOME IMPROVEMENTS. – All phases of home repairs. I do carpenter, electrical, plumbing & property management. I'm here to help. Senior discount, Reasonable rates. George, 878-1178 or murdock381@hotmail.com.

HOME REMODELING – all forms of home remodeling & construction, kitchens/baths/decks, etc. Licensed/insured, BBB member, B-Marascia Construction. Brett, 252-1088 or bmarascia@optonline.net.

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

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

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. 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.

KNIFE SHARPENING – "NEW EDGE" quality knife and tool sharpening. BNL Discounts avail. Charles Reilly, 525-2950.

LAND CLEARING & STUMP REMOVALS – 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 thomas-muller@optonline.net.

LANDSCAPE SPECIALIST – cleanups, curb side leaf pick up avail, planting, igs, lawn maintenance. Mike. 879-5019.

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

MAGNUM MASONRY CONTRACTORS – patios & walkways, fireplace/chimneys retaining walls, aprons & driveways,foundations & stoops, outdr kitch, Bobcat work & snow removal, Drains&Drywells, repairs & maint. 874-8943 or magnummasonry@optonline.net.

MAKEUP ARTIST – Professional makeup artist with affordable prices. Samples at www.beautymakeupartistry.com, Middle Island, LI location, Proms, weddings, night out. 384-6972 or beautymakeup@optonline.net.

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 georgios3000@yahoo.com.

MR BOBBY HANDYMAN – carpentry, electrician, plumbing. 617-2202.

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 – your home is OUR #1 investment. Expert mold & mildew removal. call for free estimate. BNL Discount. 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 your pet's needs. Lindsey's Groom Room, 143 Main St. Kings Park. 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 & P.J. For pricing call Kristen 631-830-5656.

PHOTO BOOTH RENTAL – a fun and exciting way of capturing great memories to 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 – Music opens hearts, relaxes and brings people together. Professional Piano lessons by Experienced Piano Teacher Prep for NYSSMA, Talent Shows and Annual Recitals for all ages. 627-3674.

PIANO LESSONS – Classical, all levels in Shoreham, NYSSMA Preparation. 413-6971 or kind_of_blue@yahoo.com.

PIANO LESSONS FOR BEGINNERS – 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.

SCIENCE&LANGUAGE SCHOOL @ SBU – Enrichment Program for children 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@yahoo.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 family-oriented 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 strong-islandtentrentals@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 – 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.

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 aggielorenjrdy@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. Donna, 903-9520 or zipperjd@aol.com.

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

VEHICLE REMOVAL – will tow away your vehicle for free, Professionally removed. Dan, 774-0031.

VW & AUDI REPAIR – Certified VW tech w/7 yrs dealer experience. All types of repairs, maintenance to eng diag. Dealer parts only, no cheap 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.

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