



Tom Butcher and Bonnie Sherwood

Roger Stoutenburgh 05560311

## BNLers Stay Warm and Save Through a Cold Winter By Taking Lab Research Home

With rising oil prices and the bitterly cold winter just experienced on Long Island, many BNL employees have received eye-popping home heating bills. But some Lab employees who took the time several years ago to thoroughly research new models of boilers before replacing their old ones have already seen savings. And one of the resources they used was BNL's head of the Energy Conversion Group in the newly formed Sustainable Energy Technologies Department, Tom Butcher, who knows a thing or two about the subject.

"I am a strong enthusiast for doing this right," Butcher said. "I know that there's a lot of energy to be saved."

### Choosing a Heating System

Paul Kalb, head of the Environmental Research & Technology Division, sought Butcher's advice last year when it became clear he would need to replace his heating system.

"I really didn't know that much about it," Kalb said. "But I was interested in something that would be high-efficiency to save on oil and reduce carbon dioxide emissions. Tom steered me toward a particular type of burner and boiler system so I did some research, called around,

### SAVE THE DATE

Butcher's work leaves little time for giving individual advice on replacing inefficient home-heating systems, so all are invited to his noontime talk on this topic, in Berkner, 4/26.

and found others at the Lab who had a good experience with one particular model, which I bought. But Tom was the one who helped steer me in the right direction."

Kalb decided to keep track of how much oil he

burned during the entire heating season to compare it to his previous average use. To make a fair comparison, he took four years of oil usage information and used data generated by BNL's meteorological services group to adjust for differences in seasonal temperatures. He found that his savings were somewhere around 25 percent.

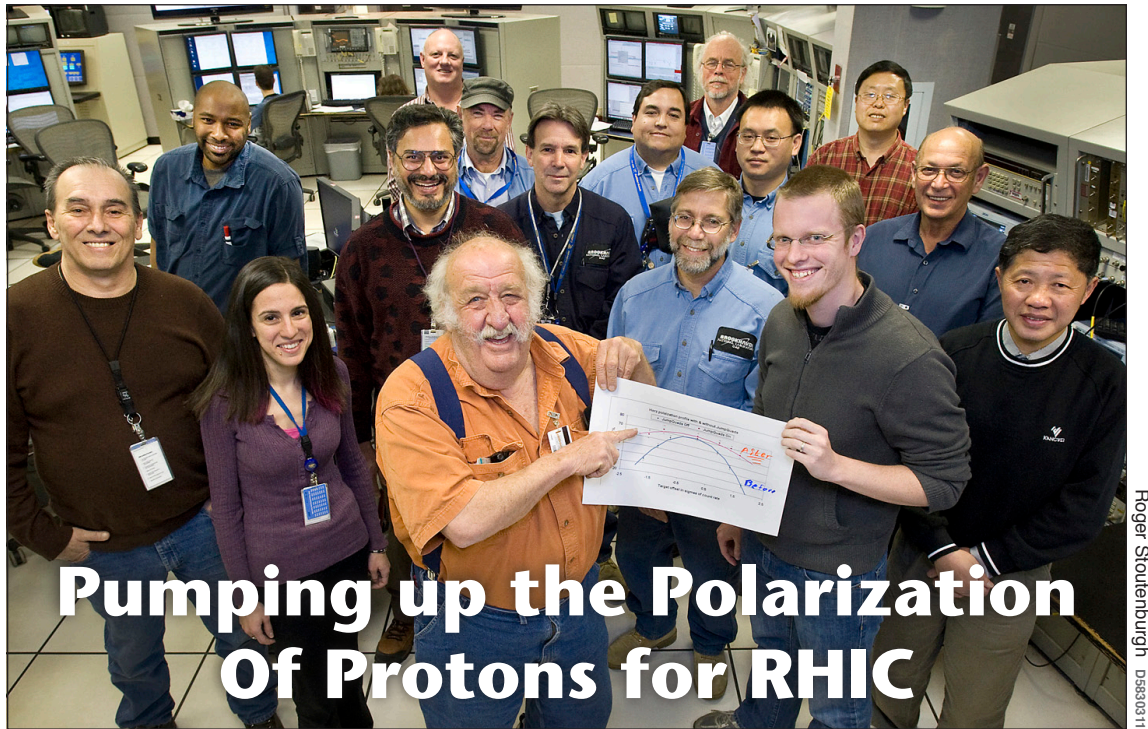
"I was very pleased with that," he said. "It was a significant investment, but a boiler is something you keep for 30 years. And in six or eight years, it's paid off."

Scientists are not the only beneficiaries of this sharing of the Lab's technical know-how.

Bonnie Sherwood, executive assistant in the Global and Regional Solutions Directorate, had to replace her 30-year-old leaking boiler in 2008.

"I had no clue as to how to proceed but I knew this was Tom Butcher's area of expertise," she said. "He gave me websites to look at and his suggestion as to the top three systems that he...

See *Heating Systems* on p. 2



Roger Stoutenburgh 05560311

## Pumping up the Polarization Of Protons for RHIC

Pictured are some of the many BNLers involved in upgrading the AGS, with a graphic showing the improved percentage of polarized protons — a new world record set at BNL. Front row, from left: Louis Russo, Zeynep Altinbas, Woody Glenn, Vincent Schoefer, and Jian-Lin Mi. Back, from left: Will Jackson, Piyush Joshi, Charlie Theisen, Frank Dusek, Ken Hartmann, Pablo Rosas, John Addessi, Leif Ahrens, Yugang Tan, Wenge Fu, and Rob Zapasek. Not present: Matt Ceglia, Haixin Huang, Animesh Jain, Rob Karl, Chong-Jer Liaw, Ioannis Marnieris, Wuzheng Meng, Brian Oerter, Steve Perlstein, Steve Pontieri, Jon Sandberg, Rocco Tuccio, Joe Tuozzolo, and Arling Zhang.

## AGS Upgrades Help BNL Set a New World Record

The competition may have been slim, but the feat was great. With custom-built power supplies built from old inventory and 1960s quadrupole magnets pulled from storage, Brookhaven Lab's Alternating Gradient Synchrotron (AGS) can now provide researchers with five to eight percent more protons that are polarized — breaking its own world record set in 2009 for the highest polarization, energy, and intensity beams at BNL's Relativistic Heavy Ion Collider (RHIC).

In the quest to understand how the universe works by looking at the smallest subatomic particles, RHIC is the only machine in the world that can smash protons that are polarized — spinning in the same direction. Before reaching 99.9 percent the speed of light at the RHIC demolition derby, these tiny particles travel approximately one million miles through a series of linear and circular accelerators, including the AGS, to get up to speed and reach RHIC. With the new upgrade, the AGS can now keep up to 75 percent of those particles in the beam polarized while they accelerate.

"The enhancement from the new AGS quadrupoles is amplified

"These improvements significantly advance our ability to unravel how quarks and gluons contribute to the proton's intrinsic spin."

Steven Vigdor, ALD for Nuclear & Particle Physics

in RHIC measurements of spin sensitivity, so an eight-percent relative beam polarization improvement can reduce the time needed to reach given data quality by as much as 36 percent," said Steven Vigdor, Associate Lab Director for Nuclear & Particle Physics. "These improvements significantly advance our ability to unravel how quarks and gluons contribute to the proton's intrinsic spin."

"Most polarization is lost in the AGS," said Vincent Schoefer, this year's AGS Run Coordinator, who is responsible for the AGS's performance during the ongoing RHIC Run 11. "Polarization figures strongly into what makes RHIC unique, so even a five percent increase counts."

Home to three of BNL's seven Nobel-prize-winning discoveries, the AGS is a circular accelerator

more than half a mile around. This synchrotron is made up of 12 sections, labeled A through L, each containing 20 different magnets. Alternating, opposing magnetic forces focus or defocus the beam particles — hence the name "Alternating Gradient Synchrotron" — steering the particles on their way to RHIC.

Accelerating polarized protons typically wobble and become less polarized as they complete approximately two million laps in the AGS. Woody Glenn, a physicist in BNL's Collider-Accelerator Department (C-AD) who has worked at the Lab for more than 50 years, led the project to limit this wobble and increase the percentage of protons that reach RHIC spinning in the correct direction.

See *AGS Upgrade* on p. 2

## Eight BNL Scientists Receive Tenure

Brookhaven Science Associates (BSA) granted tenure to eight BNL scientists, effective December 1, 2010. The scientists are: Elke Aschenauer, Physics Department; Mary Bishai, Physics Department; Vasilis Fthenakis, Sustainable Energy Technologies Department; Peter Petreczky, Physics Department; Vadim Ptitsyn, Collider-Accelerator Department; Jianwei Qiu, Physics Department; Jian Wang, Environmental Sciences Department; and Lin Yang, Photon Sciences Directorate.

Tenure appointments are made after a rigorous selection procedure culminating in a comprehensive review of each tenure case by the Brookhaven Council, an elected body that advises the Director on matters of concern to the scientific staff. The BSA Science & Technology Steering Committee oversees the tenure process and makes final recommendations to the BSA board. The newly tenured scientists are featured in alphabetical order, starting in

The Bulletin of March 18, 2011. The contributions of Peter Petreczky are summarized in this issue.

### Peter Petreczky

Scientist Peter Petreczky, Physics Department, was granted tenure for significant creative accomplishments and leadership in nuclear theory and for developing quantum chromodynamic (QCD) numerical computations that deepened understanding of novel phenomena in the quark gluon plasma (QGP) created in relativistic heavy ion collisions.

Petreczky earned a 1999 Ph.D. in physics from Eotvos University in Budapest, Hungary, then moved to Bielefeld University, Germany, to develop numerical "lattice gauge" techniques to study QCD predictions for quark-gluon matter. His thesis resulted in a well recognized publication providing an impor-

tant framework for theories in this field. In 2002, he joined the Nuclear Theory Group in the Physics Department as a Goldhaber Fellow, then became a RIKEN Fellow at the RIKEN-BNL Research Center on site in 2003. In 2005, he joined the newly formed Lattice Gauge Theory Group in Physics.

Petreczky is recognized as having made significant contributions to current understanding of the phase transition from ordinary matter to QGP — of great importance in interpreting experimental results at the Relativistic Heavy Ion Collider. In particular, he pioneered the use of model calculations of heavy quark physics combined with lattice QCD results to interpret experimental data, yielding essential insights into the properties of hot, dense quark-gluon matter. He plays a major role in...

See *Petreczky* on p. 2



Peter Petreczky

Roger Stoutenburgh 05560311



*Petreczky from p.1*  
...coordinating and defining the research directions of large-scale numerical studies of the equation of state in QCD thermodynamics.  
Said Physics Chair Tom Ludlam, “Peter is an internationally acknowledged leader in a new approach to QCD in which precise lattice gauge results are combined with analytic calculations and phenomenology to provide a direct connection between theory and experiment at RHIC and elsewhere. He is a valuable addition to the tenured staff of the department.”  
— Liz Seubert

In Memoriam

**Edward Rogers**, who started at the Lab in the Plant Engineering Division on May 17, 1976, as a senior stationary engineer and retired as a procurement specialist on November 30, 1986, died on December 26, 2010. He was 86.  
**Francis Leperra**, who joined the then Applied Mathematics Department as a senior technical specialist on September 17, 1973, and retired from the Information Technology Division as a technology architect on October 31, 2003, died on January 2, 2011, at the age of 71.

**Cecil Ayres**, who came to the Lab as an electrician A in the Plant Engineering Division on January 19, 1981, and retired on April 21, 1986, died on January 6, 2011. He was 84.

**Borge Espensen**, who joined the Physics Department as a technician A on May 5, 1952, and retired as a technical associate I on July 1, 1986, died on January 21, 2011. He was 88.

**Joanne Smith**, who joined the Personnel Division as a clerical assistant on May 11, 1989, and moved to the Director's Office as a senior secretary on June 5, 1989, died at 56 on January 25, 2011. She had left the Lab on November 24, 1994.

**Edmund Killian**, who joined the Accelerator Development Department as a project engineer I on July 1, 1990, and retired from the Superconducting Magnet Division on September 18, 2003, died at the age of 74 on January 30, 2011.

**Henry Pfister**, who became a designer IV in the Alternating Gradient Synchrotron Department on February 27, 1956, and retired as a senior designer on February 16, 1987, died at age 86 on March 18, 2011. He had held guest senior mechanical designer appointments from 1974 through 1978.

Arrivals & Departures

— Arrivals —

Yuanheng Cai.....	Biology
Janine Mehlinger.....	Bus. Ops
Matthew White.....	PPM

— Departures —

Daejin Eom.....	Photon Scis
Kuanping Gong.....	Chemistry
Sachin Junnarkar.....	Instrum
Gwen Wallasch.....	Fiscal

**New BERA Judo Class**  
A new BERA judo class will be held in the gym (Bldg. 461) on Thursdays from 7:30 until 8:30 p.m. Each class costs \$5, but the first is free. For more information, call Tom Baldwin, Ext. 4556.

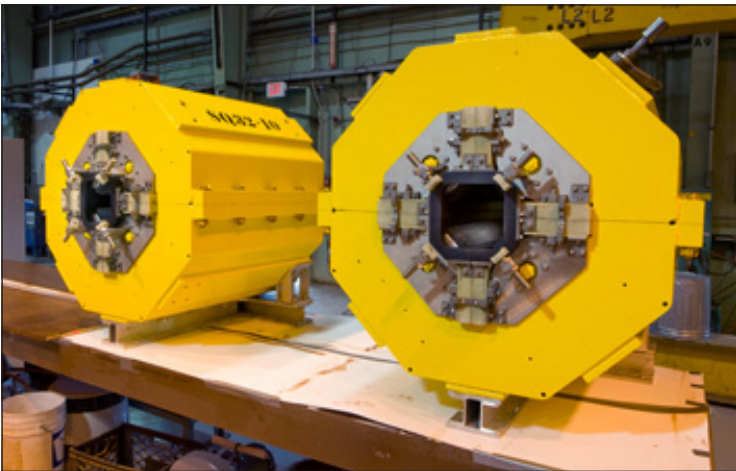
*AGS Upgrade from p.1*  
With specifications from C-AD Chair Thomas Roser, Glenn turned to plans for a “Jump Quad” system that he developed and detailed with team members from C-AD — Haixin Huang, Animesh Jain, Chong-Jer Liaw, Ioannis Marneris, Wuzheng Meng, Jian-Lin Mi, Steve Pontieri, Pablo Rosas, Jon Sandberg, Joe Tuozzolo, Arling Zhang — for the Particle Accelerator Conference in 2009.

To minimize inherent proton-wobble problems, the Jump Quad system required custom-built power supplies and two quadrupole magnets to be installed in AGS's I and J positions. As the particles race through the AGS, two of the customized power supplies quickly pulse, hold, and pull back surges of power for each of the quadrupoles in a matter of milliseconds. Forty two times within half a second, these pulsed currents produce magnetic kicks that keep the particles spinning in the correct direction.

“I don't know what it would have cost to buy new equipment, but it would have been a million dollars or so, and we didn't have a lot of money,” Glenn explained. “So, we did it with parts that we pulled out of the junkyard.”

Glenn scrounged power supplies from the Lab's previous g-2 experiment and decommissioned beam lines, and the two quadrupoles he needed sat in a scrap pile waiting for disposal. Built in the 1960s, the magnets were previously used at the AGS. Unlike many modern magnets milled from one solid block,

The two refurbished quadrupole magnets before being installed at the AGS.



*Heating Systems from p.1*  
...thought would work well for my home. He also gave me names of fuel oil companies that install these different types of burners — because not all of them do.”

**Good Savings**  
Sherwood finally bought an advanced system with a computer that monitors the outside temperature as well as the temperature in the domestic hot water tank.

“The first year the difference was incredible,” she said. “It was a mild year but they put oil in the end of April and I didn't need another drop of oil until December.”

Sherwood said she has recouped half of her investment with the savings from three winters. She lowered her house temperature and with her son's help insulated all the exposed pipes and the floor in her basement.

“With those cost-saving measures along with the new boiler, I'm doing just fine and also reducing our carbon footprint,” she said.

Butcher said his group has long been focused on how to increase the efficiency of oil-

these were assembled from a thousand thin layers laminated together — a design by BNL retiree Gordon Danby, who, with retiree James Powell, held the earliest patents for Maglev technologies. Glenn realized that the magnets could be pulsed because they were laminated, and he designed a way to shim the layers for the correct geometry.

The quadrupoles were scrubbed, scraped, painted, and outfitted with new coils and shims. The Lab's Superconducting Magnet Division tested the first prototype before the installation.

“We couldn't just turn this on and have it work,” added Glenn. “Commissioning this unique system required help from a large group, including Run Coordinators Haixin Huang and Vincent Schoefer, Lead AGS Physicist Leif Ahrens, and our physicists, programmers, and the operations staff at C-AD for more than a year.”

“This AGS upgrade to increase the proton polarization for RHIC was truly a tour-de-force achievement that only could have been done with tremendous amounts of know-how, resourcefulness, and teamwork. Congratulations to everyone who was involved,” said Roser.

Glenn, Schoefer, and their team in C-AD do not consider this case closed just yet. As they continue to adjust the timing for when the quadrupoles pulse and better control the particles' orbit, they hope to increase the polarization of protons produced for RHIC again — and set the next world record for BNL.

— Joe Gettler

fired and also gas-fired heating systems.

“The published efficiency ratings don't tell the whole story,” he said. “There's a lot of other things that you have to look at, and maybe the most important among those is what I call ‘idle loss,’ which is basically the energy these systems use when they're not doing anything.”

His team developed performance maps for many different systems and laid them against building energy-use profiles for different cities. That way they could look at the effect of steady-state efficiency and the effect of idle loss, among other things, on how much fuel would be used in a year. They've created a web tool people can use to estimate the potential savings for their buildings.

“It's our prediction that 50 percent of the units out there could save a bit under 25 percent by being replaced by new systems that are high-efficiency and also minimize the idle losses or off-cycle losses,” Butcher said. “So some smaller fraction can save considerably more and some fraction will save less, but our prediction is that the median is in the 20 to 25



Roger Stouthenburgh DS140311

From left, Helen Savage of the Fiscal Division with daughter Stephanie Savage, Ron Prwivo of the Magnet Division with granddaughter, Heather Haas, and wife Cathy Prwivo.

Now, Here's Something to Cheer About!

Heather Haas, granddaughter of BNL Magnet Division employee Ron Prwivo, and Stephanie Savage, daughter of BNL Fiscal Division employee Helen Savage, have lots to cheer about.

Haas and Savage belong to the 26-member competitive varsity cheerleading team from Rocky Point High School — the winners of the 2011 Universal Cheerleaders Association High School Cheerleading Competition.

The squad already holds seven Northeast regional championship titles.

“Before we could advance to Orlando, Florida, for the national competition we had to win the regional title,” said Stephanie. “We practice three hours a day, six days a week, and it was exhilarating when our dedication and endurance paid off.”

This was a very tough competition,” added Haas. “Cheerleading has become a sport of great athleticism, gymnastics and choreography, so winning the national title was a great accomplishment for all of us.”

Both girls agree that hearing the name of their school announced as the 2011 national

cheerleading champs was a moment they will never forget, and they said there were tears of joy and a lot of screaming when they heard their school name.

Recently the squad, together with their Head Coach Anna Spallina, and Assistant Coach Samantha Spallina, who is a Rocky Point alumni cheerleader, traveled to the New York State Capital in Albany as guests of Assemblyman Dan Losquadro and Senator Ken LaValle. The senator presented the cheerleaders with a resolution recognizing their talent and teamwork. Supervisor Mark Lesko also invited them to a Brookhaven Town meeting, where they entertained the town board and residents with a short cheer.

Haas will graduate this June and plans to attend college. Savage hopes to spend her last year of high school enjoying the camaraderie of her fellow cheerleading champions before heading off to college in 2012.

To watch a short video clip of the squad's performance in Orlando, go to: [www.youtube.com/watch?v=AwtliuRKCis](http://www.youtube.com/watch?v=AwtliuRKCis)

— Jane Koropsak

Attn.: Former EBS-RMSCO Dental Participants

Anyone who was enrolled in the EBS-RMSCO Dental program in 2010 must submit any claims not previously submitted for processing to EBS-RMSCO by no later than June 30, 2011. Claims submitted after June 30, 2011 will not be processed by EBS-RMSCO nor will they be processed or reimbursed by the new Delta Dental plans. For instructions on filing claims, see [http://www.bnl.gov/hr/Benefits/dental/linkablefiles/EBS\\_ClmIns.pdf](http://www.bnl.gov/hr/Benefits/dental/linkablefiles/EBS_ClmIns.pdf).

percent savings range by replacing old systems.”

Butcher explained that idle loss is important because during most of the year, most systems carry very little load and become very inefficient.

“In the summertime they're just keeping themselves warm and it wastes a tremendous amount of energy,” he said.

Becoming More Energy Efficient

Pat Looney, Chair of the Lab's Sustainable Energy Technologies Department, hopes that more employees will take the initiative to become more energy efficient, both at work and at home.

“As DOE Lab employees, we should demonstrate leadership in sound energy management as well as use of more sustainable energy technologies,” he said. “We have to modify our patterns of behavior. That means first and foremost at-home conservation: changing light bulbs from incandescents to compact fluorescents, turning off lights, and replacing inefficient heating systems.”

Looney cited economic impact studies that show Butcher's work

to have saved around \$20 billion by people like Kalb and Sherwood who buy improved burner technologies, or change the controls and reconfigure existing heating systems.

“Tom's work is right at the forefront of changing the equation,” Looney said.

“To make a real difference, everybody has to play a role in our personal as well as our work lives,” Kalb said. “If you take that philosophy home with you, you have a more fuel-efficient car, you insulate your house, you buy energy-efficient products and appliances. In my case, I could have spent less money on a replacement boiler, but I spent the extra money because I knew that I would get it back eventually. But, more importantly, I knew it was the right thing to do.”

Butcher advised those shopping for a new heating system not to focus on a particular manufacturer but to look at features.

“When you're going to buy a system, ask the salesman how it will keep idle losses low in the summertime,” he said. “Design features and general principles are important.”  
— Kay Cordtz



# Sleep Apnea: Getting Help From the Employee Assistance Program

**Trouble sleeping? Call the Employee Assistance Program (EAP), Ext. 4567.**

More than 50 percent of adults suffer from sleep problems at some point in their lives. Nancy Losinno, EAP Manager, can help BNLeers determine the possible causes of a sleep problem by performing a short sleep screening, and providing educational materials and a referral to a board-certified sleep physician.

## Sleep Apnea

There are numerous causes for insomnia or fragmented sleep, but one of the most common is sleep apnea. In fact, an estimated one in 15 Americans suffers from the malady. The Greek word “apnea” means “without breath,” and that is the root of the problem with this disorder: People with sleep apnea literally stop breathing many times each night. The loss of breath can last from 10 to 30 seconds for up to 400 times per night.

If sleep apnea is left untreated, it can lead to additional problems that are potentially life threatening, such as high blood pressure, coronary heart disease and stroke. Also, the safety of those afflicted with the ailment is compromised; they are six times more likely to die in a car accident.

Blocked or narrowed airways in the nose, mouth, or throat can cause sleep apnea. The airway may also become blocked when throat muscles and tongue relax during sleep. Large tonsils, adenoids, or uvula may also be the cause of the problem. Sleep apnea can afflict anyone, but it is more likely to occur in men, in people who are overweight, smokers, older adults, and people with a large neck circumference.

Many people do not know they have sleep apnea, and often a bed partner will be the first to spot the problem, since those who suffer from it tend to snore and gasp for breath during the night. The daytime symptoms are sleepiness or fatigue, dry mouth or sore throat upon awakening, trouble concentrating, forgetfulness, depression or irritability, and difficulty getting up in the morning.

## Getting Help

“I have been conducting sleep screenings at the Lab since 2006, and I make referrals to sleep spe-



Employee Program Assistance Manager Nancy Losinno holds a continuous positive airflow pressure (CPAP) mask, and (from left) Pat O'Grady, Collider-Accelerator Department; Al Borrelli, Photon Sciences; and Achim Franz, Physics Department, shared their stories about using CPAP devices to help them sleep soundly.

## EAP-Sponsored Talk on Sleep, 4/5

If you would like to learn more about sleep, come to an EAP-sponsored talk on Tuesday, April 5, at noon in Berkner Hall. Titled “Dying to Get Some Sleep,” the talk will be given by Marta Maczaj, M.D., Co-Director of St. Charles Hospital Sleep Center. All are invited to learn about the effects of sleep deprivation, tips on improving sleep, and how undetected sleep disorders affect memory, mood, and stress levels. If you register at [nlosinno@bnl.gov](mailto:nlosinno@bnl.gov), you will get an email reminder of the talk.

cialists,” Losinno said. “If you are an employee who is having trouble sleeping or feel chronically tired or fatigued during the day, I encourage you to come in for an evaluation.”

There are a number of remedies for sleep apnea, including — if it is mild — self-help remedies, such as losing weight, quitting smoking, and sleeping on your side. There are also a number of medical interventions that can help alleviate the problem, including dental devices that open your airway by bringing your lower jaw or tongue forward during sleep (only effective for mild to moderate sleep apnea), and surgical options for more severe cases.

The most common treatment for sleep apnea is continuous positive airflow pressure (CPAP) therapy, which uses a machine that is connected by a flexible tube to a mask that covers the nose and mouth (or, in some mild cases, just the nose). CPAP increases air pressure in the throat so that the airway does

not collapse when a breath is drawn.

## Using CPAP

Three BNL employees agreed to share their stories about their sleep apnea and how they benefit from using CPAP.

Pat O'Grady, a technical specialist in the Collider-Accelerator Department, said she noticed about four years ago feeling tired even after sleeping for seven hours or more each night, and she would have to take short naps during her breaks at work. At the time, she was seeing Losinno about a stress-related problem. Losinno suggested that O'Grady go for a sleep evaluation.

O'Grady was evaluated in an overnight study at St. Charles Hospital, in which electrodes were placed on her head and body to electronically record her bodily functions during sleep. A sleep specialist interprets them, and follows up with an interview, to confirm the diagnosis. In cases in which sleep apnea

is diagnosed, like O'Grady's, a CPAP device is provided. The cost of the sleep study, as well as the equipment, is covered by insurance. The mask, hose, and headgear can be replaced several times a year, at no cost to the insured patient.

“I used the mask for a few hours a night at first,” O'Grady said. “It is hard to get used to, but Nancy coached me on how to use the mask. Now I feel the difference. I sleep about seven hours, and I'm not tired during the day.” O'Grady added that she soon will be getting another sleep evaluation because she thinks she may need a new mask to cover both her nose and mouth.

Achim Franz, a physicist in the Physics Department, said his partner noticed that he was gasping for air during sleep and persuaded him to see a sleep specialist. Also, he felt tired when he awoke in the morning, and he felt a slump in energy at about 2 p.m. each day. He followed through with a sleep evaluation at a sleep clinic in Riverhead.

“Initially I used a CPAP mask that did not fit over my mouth,” Franz said. “As air was pumped through the device, I made a hissing sound through my mouth, so I stopped using it, and I had another sleep study done at St. Charles Hospital. Then I was able to get a CPAP mask that fit over both my nose and mouth. Nancy Losinno showed me how to use it effectively. It took a while to get used to, but now I don't even notice it.”

He added, “I sleep less now than I used to without CPAP, but I actually feel more rested.”

Al Borrelli, a technical associate in Photon Sciences, also went to St. Charles Hospital for a sleep evaluation after his wife complained that he would wake her by snoring and gasping for breath in his sleep. The first CPAP device he used initially did not work well for him. After another sleep study, he was fitted for another, which worked better.

“I was stubborn at first, and I didn't use it for a while,” Borrelli said. “But now I'm using it consistently, and I feel better. I sleep more deeply and feel refreshed in the morning.”

— Diane Greenberg

## CALENDAR

### — WEEK OF 4/4 —

Tuesday, 4/5

**\*Talk: 'Dying to Get Some Sleep'**  
Noon. Berkner Hall. Talk by Marta Maczaj, M.D., Co-Director of St. Charles Hospital Sleep Center. See notice at left.

### — WEEK OF 4/11 —

Tuesday, 4/12

**\*Brookhaven Veterans Association**  
Noon. Hamilton Auditorium, Chemistry, Bldg. 555. Quarterly BVA meeting. See below, left.

Wednesday, 4/13

**BSA Noon Recital**  
Noon. Berkner Hall. The Prima Trio, winners of the 2007 Fischhoff National Chamber Music Competition's Grand Prize and Gold Medal, will perform. Sponsored by BSA, the concert is free and open to the public.

### — WEEK OF 4/18 —

Wednesday, 4/20

**468th Brookhaven Lecture**  
4 p.m. Berkner Hall. Robert Bari, Energy Sciences & Technology Department, will talk on “Small Modular Reactors.” All are welcome to this free lecture, open to the public. Visitors to the Lab of 16 and older must carry a photo I.D.

Thursday, 4/21

**Talk on Robots for Surgery**  
4 p.m. Berkner Hall. Catherine Mohr, M.D., Director of Medical Research at Intuitive Surgical, Inc., will talk on “From Surgeons to Superheroes — How Robots Can Change the Future of Surgery.” All are invited.

### — WEEK OF 4/25 —

Monday, 4/25

**IBEW Meeting**  
6 p.m. Centeach Knights of Columbus Hall, 41 Horseblock Rd., Centeach. 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.

## BERA Trips

Buy tickets at BERA Store, Berkner Hall, weekdays, 9 a.m. -3 p.m.

### Long Island Ducks Tickets

The 2011 season begins Friday, May 6, and tickets are \$10 each. Buy one ticket for games Tuesday, May 10, through Saturday, May 28, and get a second for free. [www.liducks.com](http://www.liducks.com).

**Brooklyn Botanic Garden, 5/7**  
Lilacs, bluebells, and cherry blossoms await you on Saturday, May 7. \$22 per person includes luxury bus, driver tip, and entry to gardens. Children to age two on parent's lap are free. Bus leaves Brookhaven Center at 9 a.m., leaves garden at 4:30 p.m.

### Classified Ads from p. 4

SHIRLEY – main flr, 1 bdrm apt, pvt ent, lr/kit cmbo, granite, new appl, flr bath, hardwd flrs, off st prkg, no smkg/pets, sing. pers., credit chk, 1st & last sec, \$1,000/mo. all. 848-6353.

SHOREHAM – lg bdrm w/turn, tv/int, elect, etc, all incl, 7 mi from BNL, avail now. \$675/mo. 516-380-2650 or gg19582003@gmail.com.

YAPHANK – lower lvl apt, ideal for 1, suit for 2 pple, 1 bdrm, living area, eik, F/bath, sep ent, util incl except cable/phone, immed occup, 5 min to Lab. \$1,000/mo. 816-6424.

**For Sale**  
WEEKI WACHI, FL – Gulf Coast Ranch, 70m Orlando, 45m Tampa, 3W to Gulf, Ssreen/igp & lanai, fruit trees, SW architecture, 3 bdrm, 2 bath, lg d/r, t/p, 2x gar, shed, see photos. \$129,900 neg. 344-5537.  
S. SETAUKET – '02 Col. in Three Village SD, 3 bdrms 2.5 baths, master suite w/jacuzzi, den w/t/p, full bsmt, 2/car gar, lawn care/snow removal incl. \$429,000 neg. 473-5957.  
S. BLUE POINT – Reduced! 4bdrm 2bath Cape, fresh paint, new roof, high effc heater, cac, eik, fpl, ovr sz gar full bsmt, walk to water, see pics youtube, 64 Pau-manake Rd. \$399,000 neg. 516-885-5174.

## Brookhaven Veterans Association Quarterly Meeting Rescheduled, 4/12

**BVA Quarterly Meeting, 4/12:** This meeting, which was previously scheduled for April 5, will now be held at noon on Tuesday, April 12, in the Chemistry Department's Hamilton Auditorium, Bldg. 555. All BNLeers who have served in the military are encouraged to attend.

The **AdoptaPlatoon** team in the Brookhaven Veterans Association (BVA) is again collecting lip balm, baby powder, and instant drink mix in individual stick packages for the Lab's adopted platoon this month. Drop off gifts in boxes located at Bldg. 490, clinic; Bldg. 400, lobby; Bldg. 488, lobby; and Bldg. 510, library.

## Fore! Golf Season Starts Soon

The BERA Golf Association is now accepting applications for the 2011 Golf League. New members are welcome. For more information about the league, visit the website at [www.bnl.gov/bera/activities/golf/](http://www.bnl.gov/bera/activities/golf/) or contact Jeff Williams at Ext. 5587 or [jwilliams@bnl.gov](mailto:jwilliams@bnl.gov).

## Lab Support of Japan Disaster Relief

### Lunchtime Collections, Daily Until April 15

The BERA Asian Pacific American Association will staff a table in Berkner near the cafeteria entrance from 11:30 a.m. to 1:30 p.m. until April 15. Cash and checks will be accepted.

### BSA Matching Donation Up to \$25,000

Brookhaven Science Associates will match dollar-for-dollar all donations up to \$25,000 total from Lab wide to the Japan Society, an American non-profit organization that aims to bring people of Japan and the U.S. closer together. BSA and BNL's Asian Pacific American Association have selected the Japan Society because of its partnership with several Japanese and American not-for-profits working on the front lines of disaster relief and recovery. Japan Society will forward 100 percent of the donations received to organizations that will have the maximum impact, both in terms of immediate relief needs as well as the long-term recovery process.

You may make a tax-deductible donation online at [www.japansociety.org/earthquake](http://www.japansociety.org/earthquake) (do not select the “matching gift program” box since BSA will handle the match separately). If you prefer, you may write a check payable to ‘Japan Society,’ indicate ‘Japan Earthquake Relief Fund’ on the memo line, and mail it to: Japan Society, 333 East 47th Street, New York, New York 10017, Attn: Japan Earthquake Relief Fund. Following your donation, you will receive an acknowledgment for your 100 percent tax deductible donation with additional receipt information through the mail.

For the BSA matching donation, send a copy of your receipt or check by April 15 to Jeanne D'Ascoli, Community Relations Manager, Bldg. 400C, Attn: Japan Donation. For questions about the BSA match, contact Jeanne at [dascoli@bnl.gov](mailto:dascoli@bnl.gov) or Ext. 2277.



Joseph Rubino D3380506



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/](http://www.bnl.gov/HR/careers/). To apply for a position, go to [www.bnl.gov](http://www.bnl.gov) and select "Search Job List." For more information, call Ext. 2882.

Motor Vehicles & Supplies

05 NISSAN 350Z – 91K mi. 35th Anniv Ed, mint, a/t, orig owner, gar, loaded, new tires, belts, brakes, \$14,900 neg. 294-7505.  
05 NISSAN ALTIMA S/SL – 32K mi. v/gd cond, 4cyl, 2.5L, fwd, a/t, a/c, p/w, p/s, p/b, 4w/abs. \$11,000 neg. Chulwoo, Ext. 5254.  
04 DODGE NEON SXT – 122K mi. 4dr, 4cyl, a/t, prem sound, new batt/tires/timing blt, 32 mpg. \$4,300 neg. Jinying, Ext. 4269.  
03 CHRYSLER PT CRUISER GT – 80K mi. Turbo, rear spoiler, tinted wndws, all pwr, alarm, a/t stick, more. \$5,975. 252-259-9056.  
02 NISSAN ALTIMA – 122K mi. 4 dr, blk, 4 cyl, a/t, a/c, c/c, p/w, p/l, p/s, am/fm/cd, new brakes, batt. \$5,900 neg. Ext. 2947.  
00 TOYOTA CAMRY – 108K mi. a/t, v/ gd cond, elec locks and windows, gold. \$4,800 neg. Bob, Ext. 7161.  
RIMS WITH TIRES – 4 18" RT6 Enkei 360 Perfect Rims; 6 Lug; used 1/summer, excel cond, ask/\$700, pd \$1,800, 813-6583.

Boats & Marine Supplies

25' TANZER SAILBOAT – Shoal draft 2'11", aft cabin, encl head, roller furling, 4 winches, outbd, GPS, more. \$5,500 neg. 905-8808.  
16' STOWE CANOE – '84, green w/wood accents, v/gd shape, orig paddles. \$340 neg. Roy, Ext. 6392 or rhlbel@bnl.gov.  
SUZUKI OUTBOARD MOTOR – DF2.5, Mdl 2009, short shaft (15"), 2.5 HP, like new, ideal for dinghies, etc, ask/\$600. Ext. 7179.

Furnishings & Appliances

AIR PURIFIER – Honeywell HEPA, \$20. 751-4539.  
FREEZER CHEST – lg, Kenmore/\$125; Glider Rocker maple chair/\$200; Laurie, 516-740-8418 or lcade@uspsports.com.  
FUNTON MATTRESS – full size, gd cond, v/firm, \$30/obo. 744-3902.  
KITCHEN SET – tile table, 4 chairs, gd cond, \$100; lamps/\$10; custom coffee tble/\$100; car vacuum/\$10; food procsr/\$15. 744-4077.  
MICROWAVE – GE, black, over the range, \$40. 751-4539.  
RANGE – GE 30", elect, self-cleaning free standing, coil burners, beige, v/gd cond, \$50. Ext. 5128.  
TV CABINET – 52"h, 21"d, 36"w, natural oak finish comp shelf, drawer, excel cond, \$75. Hank, 744-9812.  
WHITE & STAINLESS BAKER'S RACK – Substantial, 2 drawers, many shelves, call for photo, \$75 u-pic-up in Islip. Ext. 8122.

Audio, Video & Computers

2GB DDR3 1066 SODIMM – memory modules, 4 total, \$15 each. Achim, Ext. 4750, 816-0348 or afranz@bnl.gov.  
BLACKBERRY TRAVEL CHARGER – folding micro USB portable new \$25, ask/\$7. jcarter@bnl.gov.  
DIGITAL ANTENNA – RCA 1080 HDTV (AN-T1251R) digital amplified indr, didn't work in my house, \$20. Stephen, Ext. 7268.  
INK CARTRIDGES – new HP 02, 1 of ea blk/cyan/light magenta, 2 light cyan, \$20/ all. 286-5897.  
MEMOREX BLU-RAY PLAYER – Model MVBD2535 - used once, have box, has Net-flix streaming & WIFI built-in, \$95. Ext. 3970.  
PROVIEW LCD MONITOR – 15" mon. in excel wrkng cond. Pics available. \$30. Janine, Ext. 2431 or jtrutt@bnl.gov.  
TURBOTAX 2010 – Federal & State Home & Business, \$25. Rich, gambella@bnl.gov.

Miscellaneous

FISHER PRICE POWER WHEELS – Harley D mtrcycle model, red/blk, ride on top, excel, batt chrg, pics, \$75. sbronson@bnl.gov.  
JEWELRY – handmade, unique, \$5 earrings and pins; \$10 necklaces. Ext. 7114.  
JOGGING STROLLER – Baby Trend Exped, unused, blue & gray, 3 lge wheel design, hand brake, ask \$50. sbronson@bnl.gov.  
LIVE RENT-FREE – in waterfront hse, Massapequa. 3/bdrm, beach backyd, patio, dock; in exchange, take care of elderly gentleman. Rick, Ext. 3005.  
MET ORCHESTRA TICKET – Carnegie Hall, Sun., 4/10, 3 pm. 2nd. tier cen. rgt box 22, seat 3, \$100. helennconn@verizon.net.  
XBOX 360 HOMEFRONT – Video game mint cond/\$35. Robert, 708-6238 or magnum2@optonline.net.  
YAMAHA BABY GRD PIANO – '78-'79, blk lacquer, mde in Hamamatsu, Japan, E2770345 Ser. No.; mtching bnch, ask/\$8,900. Ext. 7161.

Sports, Hobbies & Pets

180-GALL AQUARIUM – Oceanic: built in overflows, stnd, lights, smp, prot. skimmer, pump, pwrhds, fish, more. \$2000. Ext. 7049.  
BOW FLEX ULTIMATE – up to 410/lbs of resist, 90 exercises, works all major muscles, attchmts incl, like new, ask/\$400. 264-5473.  
BOWFLEX – Motivator w/lat pulldown & leg exten, excel cond, \$450/obo. Ext. 5873.

COMPONENTS – wads, 12g AA Winchester, 1-1 1/8oz 1000 pc, \$10; 12g Rem. Fig 8 & Claybstr 1-1 1/8oz 2500pc, \$15. Ext. 5864.  
ELECTRIC GUITAR – Epiphone Special II (Ebony), new in box, autographed by Joe Bonamassa. \$250. 878-1303.  
EXERCISE BIKE – Sears Pursuit 310CS, excel cond, like new, cust wide/lg seat/digital spd/time/dist/cal.counter, \$75. 821-2586.  
KAYAK – Perception Aquaterra Jocassee tandem, stable, easy to row, gd cond, ask \$400. Robert, Ext. 4548, hoogsteden@bnl.gov.  
MALTESE/SHIH TZU DOG – 19 mos, white & gray, under 10 lbs, v/playful, well trained, w/papers, chip & shots; w/crate/gate/beds/toys; mvg, must sell; ask/\$450. 445-4027.  
STAIR MASTER 4000PT – excel cond, b/o. Michael, 804-4662.  
TERRY CAMPER – 29', mstr bdrm, full kit, shwr, 2 fold-down bnk beds, v/gd con, pics, \$3000/neg. Ext. 4931, signorel@bnl.gov.  
**Tools, House & Garden**  
AFGHANS – 46" sq black, wh. w/red trim; 52" sq blue & brown; old-fashnd pillowcase bed dolls, hand-embr, \$30/ea. Ext. 7114.  
RADIAL ARM SAW – Sears, 10", gd cond w/manual, old but gd, \$75/obo. 286-3626.  
REAR TILLER – Agri-Fab 36" tow behind, used w/atv, garden tractor, 6.5hp Briggs & Stratton eng, \$700. Carol, Ext. 2587.

Yard & Garage Sales

ROCKY POINT – 4/16/17, 9a-3p; Multi-family, furn, childrens clothes, toys, etc; 20 Westchester Dr. Rocky Pt. Ext. 3085.

Happenings

CHINESE AUCTION – Mastic Beach Property Owners (Neighborhood Rd & Orchid) Sat. April 2. noon - 5p, \$6/pp, includes coffee, tea, dessert & start up tix. Reserve your seat now! Kelly, 874-9048.  
SHEN YUN PERFORMING ARTS SHOW – Lincoln Cntr, 6/23-26, 5000 yrs in the making 4 days only, shenyunperformingarts.org Brilliant, Inspiring. George, Ext. 4033.  
THEME BASKET AUCTION – St Andrew's Episcopal Church 10th Theme Basket Auction: E. Main St, Yaphank, Sat, 4/30, from noon, \$5 admiss. judywms@bnl.gov.

Free

VACUUM FITTINGS ETC. – Moving out of my lab for renovations, have confla flanges mini to 10", 3 APD displexes, lab stuff. Cabinets will be open, if you need it it's yours (for Lab use only). Bill, Ext. 2377.

Wanted

BOOSTER SEAT – for visiting grandson, gd cond. Betty, Ext. 3562, belder@bnl.gov.  
BOXTOPS & CAMPBELL'S UPSCS – Needed for Kindergarten and 4th Grade class. Bldg. 911A. Nina, Ext. 5894 or nrivera@bnl.gov.  
CANOE – preferably Colman, gd cond, reasonably priced. Ginny, 208-0009.  
DONATIONS OF DOG/CAT FOOD – For pets of struggling families/elderly and or Kent Animal Shelter. Collection bins are in Bldgs. 134, 400, 510 (X5864), 725, 901 and 902. Kathleen, Ext. 3161 or kratto@bnl.gov.  
FILEMAKER PRO DEVELOPER – We are looking to hire or contract someone who excells at FileMakerPro and can develop a database for our agency. 516-352-6088.  
FIREARMS – I want to buy your unwanted firearms, new/old, fair \$\$ paid. Joe, Ext. 3783, 487-1479.  
FIREWOOD – cut hrdwd logs oak/maple/ etc, 14"-20", split/non split pcs, will remove free nr Rocky Pt vicinity. Ext. 7861.  
GIRL'S LACROSSE EQUIPMENT – 2nd grade, need lacrosse stick, colored mouth piece, & eye protection. 703-6323.  
OLD US COINS/PAPER CURRENCY – loose or collections wanted. Will pay a fair price. Ryan, 678-2334.

Lost & Found

BNL OFFICE KEY FOUND – in the parking lot on the west side of bldg 421, in the afternoon of 3/23. Sonya, skiss@bnl.gov.

For Rent

KISSIMMEE, FL – T/share, 15 mins Disney Wld, see [www.calypsocay.com](http://www.calypsocay.com), 1bdrm unit/\$500/wk, slps 4; 2bdrm unit/\$1,000/wk, slps 8. \$500/wk neg. Ext. 5894 or nrivera@bnl.gov.  
WEEKI WACHI, FL – Gulf Coast Ranch, 70m Orlando, 45m Tampa, fly Islip dir, igp in lanai, fruit trees, 3/bdrm, 2/bath, d/r, t/p, 2x gar photos. \$950/mo neg. 344-5537.  
FARMINGVILLE – lg furn bdrm on 2nd flr, share bath, kitch, lr/, d/r, incl wifi, cable tv, phone, elect. \$575/mo. Ben, 513-8275 or benonium@gmail.com.  
MIDDLE ISLAND – 1 bdrm lg bsmt apt, pvt ent, tel., cable, int, strictly no smkg/ pet, quiet, all incl, nr Lab, BNL employee only, 1 mo sec. \$800/mo. 672-2451.  
MIDDLE ISLAND – priv 1 bdrm loft w/ deck, w/d, d/w, int, cable, a/c, heat & elec all incl, 3 mi to Lab. \$1,400/mo neg. Jim, Ext. 2765.  
RIDGE – 3 bdrm/1 bath cozy home quiet n'borhd, 3.5 mi to BNL, hdwd flrs/part bsmt, w/d, updated appli, no smkg/pets, please, util not incl. \$1,500/mo. 834-9176.  
RIDGE – spacious 1 bdrm, bath, 7 min to Lab, pvt ent&drwy, all utils incl, l/r, eik, w/ dryer, no pets, tile/new carpet, fresh paint. \$1,000/mo. 236-9114, mcjrbj@gmail.com.

See Classified Ads on p.3



The Accelerators BNL Swim Team (from left) Andrew Fox, Wlodek Guryn, Pete Heotis, and Robert Todd

BNL ‘Accelerator’ Swim Team Wins NYS Freestyle Relay Championship Plus another 11 medals, but who’s counting?

Four members of the BNL Swim Team, also known as the “BNL Accelerators” brought home three gold, six silver, and three bronze medals for age-group finishes at the New York State Masters Short Course Championships held at Eisenhower Park during the weekend of March 12 and 13. The 200 Yard Freestyle Relay team of Robert Todd, Wlodek Guryn, Andrew Fox and Peter Heotis won the NYS championship in the 45-plus age group.

Race, Swimmer	Place, Age Group	Time
50 yard Freestyle Peter Heotis	3rd, men 60-64	28.03
100 yard Freestyle Andrew Fox Peter Heotis	5th, men 45-49 1st, men 60-64	1:08.33 1:02.98
200 yard Freestyle Andrew Fox Peter Heotis	4th, men 45-49 1st, men 60-64	2:30.71 2:22.51
500 yard Freestyle Robert Todd	2nd, men 45-49	6:15.68
50 yard Backstroke Robert Todd Andrew Fox	2nd, men 45-49 3rd, men 45-49	34.01 41.52
50 yard Breaststroke Wlodek Guryn	2nd, men 60-64	38.32
100 yard Breaststroke Andrew Fox Wlodek Guryn	6th, men 45-49 2nd, men 60-64	1:24.62 1:22.26
200 yard Breaststroke Wlodek Guryn	2nd, men 60-64	2:59.07
50 yard Butterfly Peter Heotis Wlodek Guryn	3rd, men 60-64 5th, men 60-64	31.78 35.65
100 yard Butterfly Peter Heotis	2nd, men 60-64	1:18.31
200 yard Individual Medley Robert Todd	4th, men 45-49	2:33.76
200 yard Freestyle Relay R. Todd, W. Guryn, A. Fox, P. Heotis	1st, men 45-plus	1:55.48

Alternate BNL Swim Champs Make a Splash

