

## New Print & Digital Strategy For Weekly Labwide Updates

### 'Brookhaven This Week' Email and 'Brookhaven Digest' Paper To Replace The Bulletin As of December 1

By Jim Green, Manager, Internal Communications, and Gary Schroeder, Manager, Web Services  
Over the past several years, the Lab's Internal Communications and Web Services groups have taken a close look at how we communicate with our employees in an effort to maximize our effectiveness using available resources. Mirroring what's going on outside the Laboratory, our communications have been moving increasingly toward online products, with the web-based Monday Memo and the daily news updates and other user-friendly features on the internal home page as prime examples.

Continuing that move toward primarily online distribution of important Lab news, we're planning to phase out our major print publication. The final edition of The Bulletin, Brookhaven Lab's weekly newspaper, will be published on Friday, November 30. In its place, we'll distribute the latest Lab news using a digital approach for most staff, while providing a print publication for those without regular access to computers.

The Lab has maintained a print newsletter since "Isotopics" was launched soon after its 1947 founding, and The Bulletin holds a special place in the hearts of many current and former BNLeers. Since 1999, the publication has been served by

the dedicated efforts of editor-in-chief Liz Seubert. Liz has brought her understanding of the Laboratory, its people, and its achievements to each week's issue of The Bulletin.

Today, however, it's increasingly difficult for a print newsletter to keep pace with the speed and immediacy of electronic communications. There has been a dynamic shift in how we consume news and information in our personal and professional lives, and that's been reflected inside the Lab as well.

Our staff visits the Lab's intranet homepage @Brookhaven Today approximately 50,000 times each week. Broadcast email goes Lab-wide in seconds. And surveys show that our employees rank the web-based Monday Memo as their preferred source of internal Lab news. Meanwhile, printed copies of The Bulletin are down approximately 36 percent since 2004, and all of its major articles first appear online — sometimes weeks before they appear in the print edition — because of space limitations.

Starting in December, we'll have two new ways to deliver the Lab's most important news, features, events, and items of Lab community interest to you.

Brookhaven This Week: This weekly email will provide staff with a summary of all the...  
See *Communications* on p. 2

## BNL's Young Scientists to Showcase Research At the Young Researcher Symposium, 11/30

### Deadline for poster abstracts: 10/29

On Friday November 30, researchers from all disciplines of the Lab, as well as outside guests from universities, industry, and funding agencies will come together to learn about the groundbreaking work BNL postdocs and graduate students are doing. Organized by the Association of Students & Postdocs (ASAP), the one-day event is designed to give the Lab community an opportunity to learn about the wide range of research conducted at BNL and to discover avenues of collaboration. The event is free and open to the public. Visitors to the Lab of 16 and older must carry photo ID.

The day will kick off with a series of research talks in parallel sessions in the morning, followed by a career panel. BNL and SBU's Esther Takeuchi, the American Chemical Society's 2013 E.V. Murphree Awardee in Industrial & Engineering Chemistry, will give a keynote speech in the afternoon.

Several former Brookhaven Lab postdocs will join the morning career panel, including:

- Carl Andre (Research Associate, 2007-2011), a scientist at BASF Plant Science, NC
- Mark Doherty (Research Associate, 2007-2010), a scientist at GE in the Chemical Processes and Catalysis Laboratory
- Tianna Hicklin (Science Com-



Roger Stoudenbough D1501012



- munication Intern, 2010), an AAAS/Science assistant editor
  - Mathew Maye (Goldhaber Fellow, 2005-2008), an assistant professor in the Department of Chemistry at Syracuse University and an active user at the Center for Functional Nanomaterials
  - Yolanda Small (Research Associate, 2007-2011), an assistant professor in the Department of Chemistry, York College, City University of New York.
- The afternoon features two poster sessions, more parallel talks, and

the keynote speech. A reception will follow the formal program, during which the top poster and oral presenters will be recognized and receive their prizes.

#### Poster Abstracts: Still Time

Abstract submissions for oral presentations are no longer being accepted, but there is still time to submit a poster abstract. All young researchers associated with BNL are encouraged to send in their abstracts by October 29. Both oral and poster presentations will be...  
See *Young Researchers* on p. 2

## Inaugural Distinguished Lecture 'Spheres: One Hundred Years of Topology' in Science and Engineering, Stony Brook University, 10/29

### Nobel Prize-winner Robert Grubbs to Speak: 'Catalysis: Green Chemicals and Materials'

Nobel Prize-winner Robert H. Grubbs will give Stony Brook University's (SBU) Inaugural Distinguished Lecture in Science and Engineering when he speaks on "Catalysis: Green Chemicals and Materials," next Monday, October 29, at 3 p.m. in the Student Activities Center, Ballroom B, at SBU. The Brookhaven Lab community is invited to attend.

Grubbs was awarded the 2005 Nobel Prize in Chemistry for his pioneering work in understanding olefin metathesis, a catalytic reaction that plays an important role in organic synthesis. In his talk, he will discuss how plastics, pharmaceuticals, and fuels — essentials of modern life — are all produced through specific chemical transformations. In most of these cases, catalysts provide the key component in their production. As pressures for cleaner processes grow, new types of catalysts are required that open new ways to transform renewable carbon sources to fuels and products, and provide more sustainable



Grubbs received the Nobel Prize for Chemistry in 2005

products. Examples from developments in olefin metathesis catalysts will be used to demonstrate some of these principles. New catalysts have

resulted from basic research that are currently being used for the clean production of insect pheromones to replace pesticides, for the construction of lighter, tougher wind turbines, and for the production of fuels and chemicals from bio-sources.

Grubbs is the Atkins Professor of Chemistry at the California Institute of Technology, where he has been a faculty member since 1978. A member of the National Academy of Sciences, a Fellow of the American Academy of Arts and Sciences, and the Honorary Fellowship of the Royal Society of Chemistry, he has more than 500 publications and 115 patents based on his research.

Grubbs also has a strong BNL connection, as his son, Robert "Barney" Grubbs, holds a joint appointment with SBU and BNL's Center for Functional Nanomaterials.

## BSA Distinguished Lecture, 11/8

### 'Spheres: One Hundred Years of Topology'

#### Award-winning mathematician John Milnor to speak at Brookhaven Lab

John Milnor, a Distinguished Professor at Stony Brook University and co-director of its Institute for Mathematical Sciences, will give a BSA Distinguished Lecture titled "Spheres: One Hundred Years of Topology" at Brookhaven Lab on Thursday, November 8, at 4 p.m. in Berkner Hall.

During his lecture, Milnor will discuss how mathematicians in the 20th century have wrestled with the complexities of topology — the mathematical study of space, dimensions, and transformations — with a focus on the three-dimensional sphere and its role as a source of important mathematical theorems.

Milnor will provide a tour through the last century's topological study of three-dimensional spheres, beginning with mathematician and physicist Henri Poincaré's criterion proposed in 1904 for determining whether an object is a three-dimensional sphere and ending with theorist Grigori Perelman's successful proof proposed nearly 100 years later. Milnor will highlight other invaluable contributions along the way and the failures that prevented mathematicians from solving one of the most pivotal problems in topology — one for which Perelman would be offered a \$1

million prize that he refused to accept.

Milnor will also mention of *The Divine Comedy*, written by Dante Alighieri in 1320. Mathematicians have long celebrated Dante's descriptions of the universe as the first accurate descriptions of a three-dimensional sphere — the foundation for topological studies of spherical surfaces and the historical backdrop to Milnor's lecture on 20th century topology.

#### About the Speaker

Milnor is a mathematician with expertise in differential topology and other geometry-related fields such as K-theory and dynamical systems. With more than 60 years of study, Milnor has authored several highly influential books and earned praise from mathematical committees around the world. Numerous mathematical concepts are named after him, including Milnor exotic spheres and Milnor fibration.

Milnor received his bachelor's degree from Princeton University in 1951. After receiving his Ph.D. in 1954, he became a faculty member, and eventually a professor. Later, after stays at UCLA and MIT, he joined the



John Milnor

faculty of the Institute for Advanced Study in Princeton. In 1989, he became the first Director of the Institute for Mathematical Sciences at Stony Brook University.

Milnor's widespread recognition for his contributions to mathematics includes the Fields Medal in 1962, the 1967 National Medal of Science, and three separate awards from the American Mathematical Society, including the Society's 2011 Leroy P. Steele Prize for Lifetime Achievement. In 2011, Milnor also received the prestigious Abel Prize "for pioneering discoveries in topology, geometry and algebra," an award often described as the "mathematician's Nobel prize."

#### About the BSA Distinguished Lectures

BSA Distinguished Lectures are sponsored by Brookhaven Science Associates, the company that manages BNL, to present topics of general interest to the Laboratory community and the public. These lectures are free, and no preregistration is required. All visitors to the Laboratory 16 and older must bring a photo ID.  
— Nick Statt



*Young Researchers from p. 1*  
...evaluated by judges and the best presenters will be awarded a cash prize. To submit an abstract and to find out more information on the symposium, visit [www.bnl.gov/bnlrys2012/](http://www.bnl.gov/bnlrys2012/).

By providing a public forum for young scientists and the research they conduct at the Lab, the symposium promotes BNL's mission to be a leading national center for innovation and technology. The opportunity to present their work to their peers and mentors helps young Lab researchers grow, and, as a result, supports the mission, strategic plan, and growth of the Lab in meeting the challenges of the nation. A broad, diverse audience is essential to the success of the symposium in achieving these goals and fostering collaboration and networking opportunities for young scientists.

All are invited and encouraged to attend this event to support the young researchers in their scientific endeavors while learning about their cutting-edge research.

The symposium is brought to you by ASAP and the organizing committee: Ashleigh Baber, Joseph Brady, Suzanne Golisz, Jordan Hay, Jonathan Hull, Zeynep Isvan, Seetha Lakshmi Lalitha, Qin Liu, Ofei Mante, Jake Schneider, Ramesh Sharma, Vladimir Skokov, Liu Yang and Diane Zhong.

**Friday, November 30**

- 9:30 – 9:45: Opening remarks
- 9:45 – 10:45 a.m.: 20-minute-long talks in Berkner A, B, C
- 10:45 – 11 a.m.: Break
- 11:00 – noon: Career Panel
- Noon – 2 p.m.: Poster Session and Expo, in Berkner Hall lobby
- 2 – 3 p.m.: 20-minute-long talks in Berkner A, B, C
- 3 – 4 p.m.: Closing remarks
- 4 – 5 p.m.: Keynote Speaker Esther Takeuchi, in Berkner Hall
- 5 – 6 p.m.: Poster Session, Reception, Berkner Hall lobby.

**Retirees, Keep in Touch — Join BREA**

The Brookhaven Employees' Recreation Association, known as BREA, welcomes all BNL retirees to join.

BREA's purpose is to further retiree interests and benefits, to build closer community ties between BNL and its neighbors, and to encourage communications and activities within the retirement community.

To join BREA, send your first and last name with your middle initial, address, phone number, and email address, with a check made out to BREA for dues: one year costs \$10, five years costs \$40, and a life-time membership costs \$95. Mail this to BREA, BNL, Bldg. 421, Upton, NY 11973. Membership is free to new retirees for the remainder of the calendar year in which they retire.



**Percy Zahl: Mapping Materials at the Nanoscale**

In 1804, Lewis and Clark set out to explore more than two million square kilometers of land west of the Mississippi River. Now in 2012, Percy Zahl of Brookhaven Lab's Center for Functional Nanomaterials (CFN) is exploring the surface of materials measured in billionths of a meter — with atomic-scale, pinpointed accuracy. Zahl has written 300 thousand lines of computer software that he and scientific researchers use to create stunning images and multidimensional maps of innovative nanomaterials as they chart the topography of these surfaces, as well as their electrical properties. Next week, the American Vacuum Society (AVS) will recognize Zahl for his support of these monumental yet nano-sized explorations.

The AVS is a professional society for people who work toward advances in basic science, technology development, and commercialization of materials, interfaces, and processing. The society will present Zahl with its George T. Hanyo Award during the 59th International Symposium & Exhibition that will be held in Tampa, Fla., beginning on October 28. Zahl was selected for the award because of his outstanding leadership in the development of state-of-the-art, open-source software — called GXSM or the Gnome X Scanning Microscopy project (<http://bit.ly/RwXtry>) — for data acquisition and analysis in scanning probe microscopy and spectroscopy.

"I am honored to receive this prize from the AVS for my continuous dedication to the GXSM software project," said Zahl. "GXSM has been an ongoing project for 16 years, so I really appreciate this recognition."

**Charting the "Turf"**

When charting materials at the nanoscale, tape measures and hand-held compasses are of no use. At Brookhaven, researchers can use scanning tunneling microscopy (STM) and spectroscopy (STS) to look at individual atoms and molecules and generate topographical maps of nanomaterials. STM and STS were developed in the early 1980s at IBM Zurich, where Zahl later worked as a postdoc.

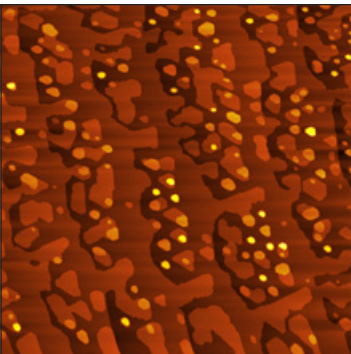
To understand how STM and STS work, start by thinking of a record player — only with a needle-like probe tip a few atoms thick that doesn't drag along the record's surface, but instead hovers just above. First, Zahl said, a sample is placed into a vacuum chamber that is prepared, cleaned, and cooled to 5 Kelvin (-450 degrees Fahrenheit). At that frigid temperature, both the sample and instrument remain über clean and stable. Thanks



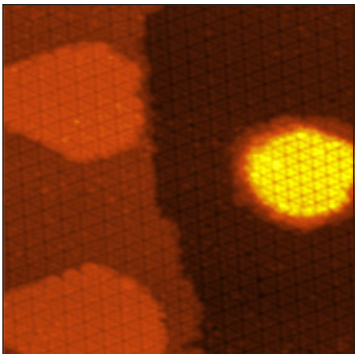
Percy Zahl in the lab at Brookhaven's Center for Functional Nanomaterials, where he uses scanning tunneling microscopy and spectroscopy along with the software package he developed to map the surface of nanomaterials measured in billionths of a meter — with atomic-scale, pinpointed accuracy.

**"I wanted to make available the best open-source software package for scanning tunneling microscopy."**

— Percy Zahl, Center for Functional Nanomaterials



Left: A nanoscale-map Zahl and his group leader Peter Sutter acquired using scanning tunneling microscopy (STM) in February 2003 at the Colorado School of Mines before they arrived at Brookhaven. Likely to be the world's highest-resolution, single scan of a silicon surface, the original STM image contains data from 30,000 by 30,000 points from an area just half a micrometer squared — that's one half of one millionth of a meter wide and one half of one millionth of a meter high. Right: A closer look at the same map, showing detailed atomic structures.



to a phenomenon called "tunneling" that occurs in the ultra-small quantum world, a current of electrons can tunnel, or flow, between the probe's tip and the sample as long as physical contact is not made. Determining this current is an extremely sensitive way to measure the distance between the tip and sample.

The probe then takes measurements point by point as it scans the material's surface — traversing across, shifting down, traversing again, and so on. The computer system and machinery work to maintain a constant distance and tunneling current between the tip and the surface. If the needle reaches a "dip" in the surface, the needle shifts down. If the needle reaches a rise, it shifts up.

Meanwhile, the digital signal processing system that does the work of positioning the tip acquires data that is then sent to a computer that runs Zahl's GXSM software to assemble the data into images and maps of the material's surface.

"Not only does this system

allow scientists to explore the nano world, it also allows for manipulation by moving around individual atoms and molecules," Zahl explained.

Researchers from the Lab's Basic Energy Sciences Directorate and around the world bring their own samples and experiments to the CFN for prospecting at the STM facility. Zahl typically hosts these researchers for sessions that last about two weeks.

"Sometimes tips break, sometimes things shift unexpectedly and the images are unusable," Zahl said. "STM is like driving a race car — anyone can do it, but doing it safely and well enough to finish a long race requires a lot of experience."

It's his experience and the art of large-scale programming Zahl developed that enabled him and his group leader Peter Sutter to set what is very likely the world record for the highest resolution scan of a silicon germanium sample. Their scan contains 30,000 by 30,000 points and they completed

it successfully while at the Colorado School of Mines, before they came to Brookhaven.

**Not Coded in a Day**

Zahl began working on the GXSM software package around 1996. Since December 2000, the open-source software has been available under the GNU General Public License, which means that people can download the entire package — including accessible source code — to use and customize for free. Zahl's collaborator Thorsten Wagner of the Institute for Experimental Physics in Austria is also a project administrator who helps support people who use the software package today at more than 60 institutions in 20 different countries. Zahl also maintains a forum online where he and users discuss the project, new ideas, and future developments.

"I got interested in this because I was working on my thesis with a group in Germany that had microscopes, but didn't have the money for a full-scale commercial system," Zahl explained. "We got together everything we needed and the software part of it became a hobby. I wanted to make available the best open-source software package for scanning tunneling microscopy."

"The software is future-proof, because I designed it modularly to adapt with new plug-ins and add-ons," Zahl added. "We often need to make the software do something new or work with next generation STM techniques and computer hardware. I built it so that the only limitation is a computer's hardware. If a computer can take it, the software can handle it."

Zahl earned a Ph.D. in physics at the *Institut für Festkörperphysik, Universität Hannover* — the Institute for Solid State Physics at Hannover — in Germany in 2000. He worked as a postdoc in the Physics Department at the Colorado School of Mines from 2001 to 2003, and then as an IBM postdoc fellow at IBM Zürich from 2003 to 2005. He arrived at the CFN as an associate scientist in 2005.

In addition to supporting the Lab's STM program at the CFN, Zahl rides his bicycle any chance he gets. He rides to the Lab from his home in Rocky Point whenever weather permits it. He's also a member of the Green Arm Bandits cycling team. With the team and fellow riders — including several fellow BNLers — Zahl has pedaled more than eight thousand miles in 2012 alone, exploring the tri-state area, New England, and some of the biggest Alpine passes during a short trip he took to Switzerland and Italy this past summer. — Joe Gettler

Below: Some BREA members at the 2012 Get-Together Luncheon

*Communications from p. 1*  
...week's important news, features, announcements, and upcoming events, with links to full stories and event listings online — along with the ability to add items to your Outlook calendar with just one click. You can see an example showing how the email will look at [www.bnl.gov/newsroom/thisweek/](http://www.bnl.gov/newsroom/thisweek/). Current Lab staff and anyone with a bnl.gov email address are automatically subscribed to receive the email. Others — including retirees, community members, media, and elected officials — may sign

up to receive an external version of this email, which will include similar content minus the items only relevant to current Lab employees. For retirees in particular, it will provide valuable news and event information in a timelier manner than the mailed Bulletin.

Brookhaven Digest: This weekly publication will keep print in the hands of employees who need it. The full-color Digest will be distributed on Fridays and addressed by name to the approximately 400 Lab employees who do not have regular access to BNL computers. It will feature

highlights of the same science, operations, and event news featured in Brookhaven This Week, as space permits, with pointers on how to access full information online.

Nearly every BNL employee has been assigned an email address, which allows you to receive Monday Memo, broadcast email, and the new Brookhaven This Week. If you need help determining your email address or accessing your email, contact the ITD Helpdesk at Ext. 5522. **Look for The Bulletin's farewell issue on November 30.**





# ‘Think We Before Me — Work United — Live United’ BNL’s 2012 United Way Campaign Has Begun

By Roy Lebel, United Way Campaign Chair and Quality Management Office Manager, and Bob Lincoln, United Way Campaign Chair and Chief Human Resources Officer

“Think We Before Me — Work United — Live United.” That’s the theme for the Lab’s United Way campaign this year. As the chairs for the campaign, we are pleased to announce that we kicked it off yesterday, Thursday, October 25.

The United Way of Long Island supports 125 agencies and charitable foundations that work with Long Islanders who truly need our support — including victims of domestic violence; families of deployed military reservists; children afflicted with conditions such as Down syndrome, autism, and multiple sclerosis; the elderly; and others.

Eighty-eight cents of every dollar donated to the United Way of Long Island goes directly to these agencies and foundations that help our neighbors with their education, income and financial stability, and health. All donations stay on Long Island. The website *Charity Navigator* gives the United Way of Long Island a four-star rating, the highest rating possible.

With help from our Co-Chair Joyce Fortunato, Pillar Campaign Chair Gerry Stokes, the core team, directorate and division captains, and countless others, we are striving to meet and exceed this year’s campaign goal to raise \$150,000 — \$5,000 more than last year’s goal. Last year, the Lab actually raised \$193,132.98, the largest amount in its history of donating to the United Way. With your help, we can surpass that goal and really make a difference for those who need help in our community.

## Ways To Participate

There are many ways to help. One of the most convenient and impactful ways to contribute is to make a pledge using the form that will be delivered to you via interoffice mail. Contributions are tax deductible and can be made for any amount. A weekly gift of just one dollar — the cost of a can of soda — is enough to fill a backpack with essential school supplies for a middle school student in need, so every dollar counts. Completed pledge forms should be sent to Liz Mogavero, Bldg. 510A. Our goal is to get at least 369 pledges this year.

This year, we will again host a concert to benefit the United Way featuring Tommy Sullivan, a Long Island Music Hall of Famer and founding member of the group Brooklyn Bridge. Boy, did we have a ball at the concert last year. We haven’t yet nailed down a date for this concert, so look for details in the coming month.

We are also beginning to add fundraising events to the list on our website (<http://1.usa.gov/P097gJ>) as dates and times are determined. Again, look for details in the coming month and if you have an idea for a new fundraising event, contact the captain for your directorate or division.

Members of the BNL community have a long history of helping others and we ask that you join us in this effort in whatever way you can. Thank you in advance for your support, and we look forward to another successful campaign this year.

“Think We Before Me — Work United — Live United,” and together we can make a difference.

**Find a list of the latest fundraising events online:**  
<http://1.usa.gov/P097gJ>

## New Energy Technology & Policy Program at SBU: Path to MS in Technological Systems Management

Stony Brook University is recruiting students for a new program in Energy Technology and Policy (ETP) that leads to a master’s degree in Technological Systems Management.

ETP is designed for students, including mid-career professionals, who are interested in energy issues from the perspectives of corporations, government, and non-governmental organizations. College graduates from any science and engineering disciplines are welcome to apply. Studies will include:

- Core courses on technology management, decision making, public policy, and business strategy
- Topical courses including alternative energies, electric power systems, smart grids, and environmental planning and management
- Method courses including engineering economics, statistics and data analysis, and policy analysis

ETP is offered as both a part-time and full-time program, and has a flexible curriculum to accommodate the needs and interests of individual students.

Degree requirements include at least 30 post-baccalaureate credits, four core courses, completion of a keystone project, and five elective courses, which include one from each of five specific groups. More information is available online: <http://1.usa.gov/XQrrKz>.

## Renate W. Chasman Scholarship Awarded to Two Students



Roger Stoudenburch D244812

Displaying the Chasman Scholarship certificates are the two 2012 scholarship winners, Anna Goldberg (third from left) and Jill Jermyn (second from right), with (from left) Brookhaven Women in Science board members Linda Bowerman, Vivian Stojanoff, Loralie Smart, and Vinita Ghosh.

## Anna Goldberg of Stony Brook University, Jill Jermyn of Columbia University

Anna Goldberg, a graduate student studying chemistry at Stony Brook University (SBU), and Jill Jermyn, a graduate student studying cyber security at Columbia University, have been awarded the 2012 Renate W. Chasman Scholarship for Women. Brookhaven Women in Science (BWIS), a not-for-profit organization at BNL, offers the scholarship to qualified candidates annually to encourage women to pursue careers in science, engineering, or mathematics.

“This year, we found two candidates who were both exceptional students with excellent qualifications, so we granted two scholarships rather than the usual one,” said Loralie Smart, a BWIS executive board member who coordinates the scholarship program.

Named after the late Renate Chasman, a renowned physicist who worked at Brookhaven Lab, the \$2,000 scholarship is awarded each year to a woman, whose college education was interrupted, but then returns to pursue a degree on a half time or greater basis. The scholarship is funded by private donations, and has provided a token of economic support to 28 women since its inception in 1987.

### Anna Goldberg

As a young girl in Poland, Anna Goldberg admired the achievements of role model Marie Curie. She decided to pursue a career in science and worked hard to overcome the challenge of having English as a second language. As a graduating senior at SBU, she was recognized with the Academic Achievement Award in chemical and molecular engineering, and her senior thesis research was awarded first place at the American Institute of Chemical Engineers Mid-Atlantic Regional Conference. She earned her bachelor’s degree in chemical and molecular engineering with Summa Cum Laude Honors in 2009. Then, just married, she took a position with Pall Corporation in the field of polymer science and engineering.

At Pall, she gained valuable experience, but felt unfulfilled. She enrolled as a part-time material science graduate student at SBU in fall 2010. Shortly thereafter, she joined the Target Processing Laboratory at BNL and temporarily became fully focused on a career as a radiochemist. Then, recently, she made the commitment to continue graduate studies and was accepted to work toward a master of science degree in the chemistry program

at SBU. She plans to complete her degree in spring 2013 and is considering pursuing a doctoral degree in chemistry.

“I am absolutely honored to receive the Renate W. Chasman Scholarship,” said Goldberg. “Completing my graduate studies is possible thanks to the love and support of my husband, my mom and my parents-in-law. I am especially grateful for women like Marie Curie and Renate Chasman who paved the way for other women to excel in science and engineering.”

### Jill Jermyn

Before becoming interested in computer science, Jill Jermyn devoted her time to musical performance as a professional violinist. She studied with the Emerson String Quartet, New York Philharmonic, and Philadelphia Orchestra, and performed in great concert halls including Carnegie Hall and the Kennedy Center. She spent several years as a performing musician. During this time, her family was tragically affected by two terrorist acts, the Pan Am Flight 103 and the World Trade Center attack. She decided to follow a path to help prevent other families from suffering such losses.

At the suggestion of a former professor, Jermyn decided to take classes at SBU. With no background in computer science, she delved into computer programming books and sat in upper division courses covering material well beyond the content her classmates were learning. By spring of 2011, she knew she wanted to explore the area of cyber security and accepted a software engineering internship at Applied Visions’ Secure Decisions division. This research team experience inspired her to return to graduate school last January to pursue her masters’ at Columbia, where she works as a research assistant on innovations in intrusion detection systems. This January, Jermyn will enter Columbia’s Ph.D. program in cyber security.

“It is a great honor to be selected for the Chasman Scholarship,” said Jermyn. “As a woman starting her career in a male-dominated field after having pursued a completely different profession, I am greatly appreciative of the inspiration and support provided by this award. I hope to be a role model to those who have been in similar situations and encourage young women to pursue careers in the science, math, and engineering fields.” — Liz Seubert

## CALENDAR

Today, 10/26

**Healthfest Mountain Bike Ride**  
Noon. Gazebo, ball field area  
Bring your own bicycle and helmet. (see map: <http://1.usa.gov/R4zq21>)

— WEEK OF 10/29 —

Monday, 10/29

**\*Distinguished Lecture at SBU**  
3 p.m. Student Activities Center, Ballroom B, Stony Brook University. Nobel Laureate Robert Grubbs will speak on “Catalysts: Green Chemicals and Materials.” All are welcome. See p.1.

Thursday, 11/1

**Sam’s Club Wholesale Club**  
11 a.m.-1 p.m. Berkner Hall lobby. Representatives of Sam’s Club cooperative shopping club will detail discounts, etc.

Saturday, 11/3

**‘Gospel Fest’ at BNL**  
6 p.m. Berkner Hall. Doors open at 5 p.m. Hosted by the BERA African American Affinity Group, featuring groups and soloists from within and outside the Lab. For more details and ticket information, see p.4. The event is open to the public. Visitors to the Lab of 16 and older must carry photo ID.

Thursday, 11/8

**\*BSA Distinguished Lecture**  
4 p.m. Berkner Hall. John Milnor, Professor and Co-Director of the Institute for Mathematical Sciences at Stony Brook University, will talk on “Spheres: One Hundred Years of Topology.” All are invited to this free public lecture, sponsored by Brookhaven Science Associates. Visitors to the Lab of 16 or older must carry a photo ID. See p.1.

## Correction: In Memoriam

*The Bulletin greatly regrets that last week, Joseph Weynand’s date of death was incorrect. The correct date appears below.*

**Joseph Weynand**, who joined the Instrumentation & Health Physics Division on September 26, 1960, as a staff area storeman II, and retired from Security as a computer security coordinator on November 30, 1988, died at 81 on September 18, 2012.

## Defensive Driving Course: Two Parts, 12/3 & 10

The next six-hour Defensive Driving (Point & Insurance Reduction) course will be held in two parts on Mondays December 3 and 10 in the Brookhaven Center South Room, 6-9 p.m. on both nights. The course is open to BNL, BSA and DOE employees, BNL facility-users, contractors, guests, family members, and friends, at \$33 per person. Preregistration is required. To register, call Ed Sierra, 821-1013, and leave a message. Or complete a New York DMV Approved Course Online for \$39.95 with discount (Use code: “SAVE10” for \$10 discount): [www.lidrivessafe.com](http://www.lidrivessafe.com).

## Arrivals & Departures

— Arrivals —

Stephen Buczak ..... Lab Protec  
Natalie Delpratt ..... Photon Scis  
Niv Levy ..... CFN  
Virgilio Martinez ..... Lab Protec  
Andres Plazas Malagon .. Physics  
Peter Sicoli ..... Counterintel  
Frank Toldo ..... Staff Services

— Departures —

Richard Bryan ..... Bus Ops  
Denise Hanley ..... Safety & Hlth  
Vesna Stanic ..... Photon Scis





Alex Reben

## Welch Advises Patients Daily On Safety Techniques

Lab physical therapist Gary Welch teaches all his patients about how to lift, move, and work safely at the Lab. Watch the video to learn more: <http://1.usa.gov/VmTHBs>.

**Safety** makes science possible at Brookhaven National Laboratory

### BERA Fitness Class Sessions, Nov. 2012-Jan. 2013

Advance registration is required for the following classes. Classes cannot be pro-rated. Your paid registration is needed to secure instructors. Please print your name, BNL Life/Guest Number, Bldg. No., or home address if retired, phone number, email address, emergency contact and phone number, and mail with your check, made payable to BERA to: Recreation Office, Bldg. 400A. Proof of Medical Insurance is required for all Guests/Facility Users, and family members. Please check with your physician before starting any fitness program. For more information, see [www.bnl.gov/bera/recreation/clubs.asp](http://www.bnl.gov/bera/recreation/clubs.asp).

**Aqua Aerobics:** 11-week session. \$44 for once a week, \$85 for twice a week. 5:30-6:30 p.m. at the Pool. Tuesdays: Nov. 6, 13, 20, 27; Dec. 4, 11, 18; Jan. 8, 15, 22, 29; and Thursdays: Nov. 1, 8, 15, 29; Dec. 6, 13, 20; Jan. 10, 17, 24, & 31.

**Pilates:** 9-week session. \$45 for once a week. 5:30-6:30 p.m. Rec Hall, Bldg. 317. Mondays: Nov. 5, 19, 26; Dec. 3, 10, 17; Jan. 7, 14, (no 21), & 28.

**Yogalates:** \$45 for once a week. \$90 for twice a week. Noon-1 p.m. Rec Hall, Bldg. 317. Mondays: 5, 19, 26; Dec 3, 10, 17; Jan. 7, 14, (no 21), 28; Thursday: Nov. 1, 8, 15, 29; Dec. 6, 13, 20 (no 27); Jan. 10, 17, 24 & 31.

**Zumba:** 11-week session. \$55 once a week, \$100 twice a week. Tuesdays, noon-1 p.m. at the gym, Bldg. 461: Nov. 6, 13, 20, 27; Dec. 4, 11, 18; Jan. 8, 15, 22 & 29; Wednesdays, 5:15-6:15 p.m. at the Rec Hall, Bldg. 317: Nov. 7, 14, (no 21), 28; Dec. 5, 12, 19, (no 26); Jan. 9, 16, 23, 30 & Feb. 6.

### 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

11 HARLEY DAVIDSON WIDEGLIDE – w/ PowerCommander, Vance & Hines pipes, S&S air cleaner, Dyno tuned, w/OEM parts avail. \$13,000. Dave, 902-5453.  
08 TOYOTA TUNDRA DBL CAB – 66K mi. 2WD, Mint Condition, Alloy Wheels, Bed liner & Cover, Step Bars. \$20,000 neg. Harold, Ext. 8173 or hseigura@bnl.gov.  
06 AUDI A3 – 86.7K mi. 4 cyl turbo, ocean blue pearl effect leather beige int, sports pkg w/ dual s/roofs, super clean, gar, No pets/kids. Lien Free. \$12,000 neg. 379-8670.  
05 SCION XA – 99.1K mi. Silver car. In great condition. \$6,000 neg. Ricardo, 276-1308.  
04 CHEVROLET AVEO LS SEDAN – 55K mi. 1.6L eng, 4/cyl, Fuel Inject, white, 35/ mpg, a/t, p/s, a/c, p/b, fm/cd/mp3, excel cond. \$7,500 neg. slaketrac@gmail.com.  
04 NISSAN SENTRA 1.8S – 88.7K mi. 4cyl, 4dr, a/t, a/c, p/s, p/w, p/l, am/fm, MP3, tilt wheel, eng & brakes excel, v/gd tires & batt. \$5,400 neg. Ext. 4126, snayak@bnl.gov.  
02 BUICK CENTURY – 43K mi. excel cond. \$4,000. 615-9014.  
99 TOYOTA COROLLA – 173K mi. 4 dr Sedan, 4cyl, a/t, a/c, radio/cass, MP3, air bags, new 4/tires/tune up/brakes/batt, 34/ hwy, alarm, \$2,400 neg. Zamadar, Ext. 4331.  
96 HARLEY DAVIDSON FLH – w/93ci S&S Sidewinder kit, S&S E carb, PowerCommander, V&H true duals, 6spd tranny, solid tourer. \$7,500. Dave, 902-5453.

#### Tools, House & Garden

BOLENS BL-100 TRIMMER – working two-stroke string trimmer w/ new head, \$35. Steve, Ext. 2897.  
KRUPS BEERTENDER – almost new w/ orig box, used only 3 times, Model B100, \$100. Paul, Ext. 2899 or porfin@bnl.gov.

#### Furnishings & Appliances

BOMBAY WINE HOLDER – metal w/ marble top and shelves holds 12 bottles, many glasses, \$200, pics avail. 419-6854.  
CURIO CABINET – Bombay Cherry wood curio w/glass shelves, \$150 pics avail. Laurie, 419-6854.  
DISHWASHER – Kenmore, white, M:665, 11mo old, used but vg cond, photo on req., \$150/obo. s.horkil@yahoo.com.  
FREEZER – United, heavy-duty upright, 60x28x44. gd working cond, pics avail, \$125. Ext. 5873.  
FRIGIDAIRE – 22 cu ft side by side refrigerator/freezer model FRS22ZRG 67" h x 35 1/4" w x 33" d, \$200 886-1591 after 5pm.  
KITCHEN SET – 42" glass table w/4 metal chairs w/sage green cushions, 3 yrs old, great cond, \$500/pics avail. 419-6854.  
KITCHEN SET – Octagon shaped wooden table w/leaf, 4 metal chairs w/flower cushions, \$300, pics avail. 419-6854.  
KITCHEN TABLE – round Oak w/4/chairs, gd cond, pics avail/\$125. Diana, Ext. 3681, 922-0104 or teich@bnl.gov.  
KITCHEN TABLE – Tile Top Kitchen Table (white), \$100; 6 Dining Rm Chairs, \$150. Pics avail. 821-1271, difilip@bnl.gov.  
PIANO – 1954 Hamilton upright piano, by Baldwin, w/bench, oak color, L55x-H45xD25 ins. \$400 neg. 681-7124.  
LOVE SEAT & COUCH – brown microfiber, double recliners on both, 3/yr old, \$700, pics avail. 419-6854.  
ROLL TOP DESK – Oak, 50"L, 22"W, desk surface 18.5 x 46 excel cond u-pic-up, \$300. Peter, Ext. 2522 or boylep@bnl.gov.  
SECTIONAL COUCH – lg, sage green, q/sleeper, pic avail, 1/cushion has rip, \$200. Ext. 7918 or difilip@bnl.gov.  
SONY PROJECTION TV – 46"W, 54"H, gd cond, ask/\$150, pic avail. 353-1750 or jecruz@bnl.gov.  
THOMASVILLE TABLE – Two tone cherry top, black bottom, 8 chairs, 63"L w/o leaf, 83"L w/leaf, 42"W, ask/\$500, pics avail. 353-1750 or jecruz@bnl.gov.  
TV – 27" – Eso. No remote. \$30. Lynda, Ext. 7235 or fitz@bnl.gov.

## Save the Date: Saturday, 11/3 BERA African American Affinity Group To Host 'Gospel Fest' at Brookhaven Lab

Preparations are revving up for the Gospel Fest to be hosted by the BERA African American Affinity Group in Berkner Hall on Saturday, November 3, at 6 p.m. Gospel Fest will feature groups and soloists from within and outside the Lab. Tickets purchased in advance will be \$12 for adults, \$10 for children under 12 and \$15 at the door. Tickets are available at the BERA Store in Berkner Hall or through Tanya Collins, [tcollins@bnl.gov](mailto:tcollins@bnl.gov), 764-3507, or Ext. 5344; or Patrice Greenwood, Ext. 7176, [greenwood@bnl.gov](mailto:greenwood@bnl.gov). Doors will open at 5 p.m. Refreshments will be served. Visitors to the Lab of 16 and older must carry photo ID.

Among those performing will be BNL retiree and poet Robert Brown, Gospel Fest performers Jeff Roberson and Nu-Life; two-time Gospel Fest winner Minister Michael Davis, Pastor Charlotte Holly, the "Heaven Sent" Gospel group singers, 2011 Gospel Fest winners Daphne's Divine Dance group, and from BNL, Arthur (Skip) Anderson, George Yancy, Rosa Palmore, Joy Epps, and many more. All are welcome to attend this exciting event.



Above: Gospel Fest performers Jeff Roberson & Nu-Life from Wyandanch on Long Island

Below: Performers Heaven Sent, also from Long Island



TV STAND – IKEA, white color, not in perfect cond, pic avail, ask/\$5. 681-7124 or rachelnehc@gmail.com.

WALL UNIT – 3 pc Solid Oak, 2/sidepieces 33" x 6', middle pc 48" x 6', excel cond, \$350, pics. 922-0104, teich@bnl.gov.

#### Audio, Video & Computers

HP TOUCHPAD 32GB – \$175, matt finish scrm protctr, Targus Truss case+ Charger +USB cable, Dual boot HP Webos or Android 4.0-ICS, poss trade. goel@bnl.gov.

POWERED SAMSON MONITORS – 215", in/ outdr, Smsn DBA500 pwrd, built in amp, pics, \$450. 347-581-3731, arajnauth@bnl.gov.

TV – 32" Sony Trinitron flat screen color TV, excel cond, extra inputs for DVD, game consoles etc, ask/\$100, u-pic-up. Joseph, Ext. 8119 or jsullivan@bnl.gov.

TV – 25" Toshiba Flat Screen Projection, beaut. pic, it wgt. must sell/\$250. 834-6956.

WII BUNDLE – blk, Mario Cart w/wheel, 5/games, 2/controllers, & charge station, like new/\$200/neg. Anya, 347-581-3731.

#### Sports, Hobbies & Pets

CORN SNAKE – incl tank, heat lamp, water dish. Richard, Ext. 7129, 516-779-3116 or rlagattolla@bnl.gov.

DEHUMIDIFIER – LG/\$80, new cond. Joe, 603-6285.

DOG CAGE – med size, \$25. dmcarthur@bnl.gov.

EXERCISE EQUIPMENT – Dual motion Nordict Rider/\$35; Rowing Machine/\$35 Total Gym/\$80, all v/gd cond. Joseph, 603-6285.

MOUNTAIN BIKE – Giant Boulder SE, for 5'4" to 5'7" tall, new frt derailleur, chain, gel seat, more, pics <http://tinyurl.com/giantboulderse>, \$250. Phil, Ext. 5669.

WETSUIT – Youth sz 12, pd/\$110, ask/\$50, excl cond. Ext. 7235, fitz@bnl.gov.

#### Free

CLOTHING STORAGE BOX (MOVING) – lg heavy duty cardbrd box w/metal hanging rack req by moving companies to ship clothing, great for attic storage. Ext. 2922 or fosters@bnl.gov.

ELECTROLUX VAC BAGS – Style C, for Electrolux canister vac, 13 bags, never used. Nancy, Ext. 4567.

FREE CAT – Extremely sweet, gentle and affectionate caramel-colored Persian cat, approx. 1 year old, 6.5 lbs, healthy (negative for HIV/leukemia), vaccinated and spayed. Pics available. Jenifer, Ext. 3194 or jbrock@bnl.gov.

KITTENS – 5 for adoption, 2 female 3 males, pics upon request 5/wks old, must find homes for them. Frank, 344-8913 or scheifele@bnl.gov.

ROOSTER – one of our hens turned out to be a rooster! Beautiful bird, free to a gd home. Christine, Ext. 4157 or cdemarco@bnl.gov.

#### Miscellaneous

AFFORDABLE DAYCARE – Before and after school care with full preschool curriculum program, NY State lic, over 25 years' exper., open 7 a.m. on. 345-3115.

AUDI & VW REPAIR – Certified VW tech w/8 yrs dealer experience, all types of repairs. Dealer parts & service for reasonable prices. Email/call for est. Ref. William, 484-9888 or wflitiz@gmail.com.

DOG TREATS – unopened 16 oz bag, Natural Duck Strips, over 90% Duck, no artificial color, flavors, etc. My dog just passed away, \$10. Vicki, Ext. 4271.

FOOT/LEG MASSAGER – multiple settings, seen in Brookstone, zip out washable liners, works perfectly, all in excel cond, orig/\$500, ask/\$210. 516-241-4598.

MIRRORED MEDICINE CABINET – 36Wx32Hx5D, \$25, vanity countertop w/ sink & plumbing, 48Wx22D, \$50. Karl, Ext. 3116.

PROM/SWEET 16/PARTY GOWN – Sapphire blue satin, silver beading, sweetheart bodice w/front slit, new w/tags, fits 12-14, orig/\$400, now/\$150. 516-241-4598.

SWEET 16/PROM/PARTY GOWN – Emerald green w/corset back, crystal beading, drop waist, sweetheart bodice, fits 14-16, orig/\$400, now/\$150. 516-241-4598.

TODDLER CAR SEAT – Evenflo Triumph, holds child up to 50lbs, pics on request, \$75. Rachel, Ext. 3500 or irachel@bnl.gov.

#### Community Involvement

ALL THE WAY FOR EASTON – BOWLING FUNDRAISER @ AMF Centereach Lanes, Oct 27, 4p-6:30pm supporting Baby Easton Friedel who suffers from Epidermolysis Bullosa, 40 Horseblock Rd, Centereach \$20/a \$10/c. Lizette, info@theal-organization.org.

CHILD SAFETY ID PROGRAM – Being held at the Rocky Point FD, Sunday October 28, 9am-12pm. Free and open to the public. Help support local Amber Alert efforts. Russ, Ext. 2132 or wobrien@bnl.gov.

#### Happenings

MUSICAL: "9 TO 5" – Riverhead Faculty & Community Theater presents the musical "9 to 5," at the Riverhead High School, Harrison Ave, Riverhead, Nov. 9, 10, 16, 17, at 8 p.m.; Nov. 11 at 2 p.m. Proceeds benefit student scholarships. For info or tickets, call Ext. 7477.

#### Wanted

HALLOWEEN CANDY – Please consider donating your leftover candy to the Troops. There are donations boxes in Bldg 400, 490 & 197. Thank you. Joanne, Ext. 8481.

IPHONE REPAIR – Anyone able to repair a broken Iphone screen at a reasonable price? If so, pls contact me. Gabrielle, Ext. 7328 or gwilson@bnl.gov.

MAGIC CARDS – Magic the Gathering playing cards for my sons. Lawrence, Ext. 4797 or lvogt@bnl.gov.

PCHEM TUTOR – Urgent need for pChem tutor, spec. thermodynamics, college level, start ASAP (inclgd this wkend), Skype okay, Thank you 988-2536. David, dtm2117@columbia.edu.

POKEMON CARD HOLDER – looking for the binder that holds and displays the pokemon cards, for my son. Thanks. Henry, hhocker@bnl.gov.

POP TOPS FROM SODA/BEER CANS – collecting for Shriner's Children's Hospital. Please send or drop off @ Bldg 400A, Transportation Office. Paula, Ext. 2535.

VAN FOR HANDICAPPED PERSON WANTED – van that has been converted for elect scooter transport. 375-2680.

#### Lost & Found

EYEGLASSES – found in the 400 prkg lot, Tues morning, brown w/filigree cut outs. Christine, Ext. 5090 or ccarter@bnl.gov.

FOUND SWEATSHIRT – on walkway between Bldgs 179B & 355. madaia@bnl.gov.

LOST CELL PHONE – Samsung Galaxy 3 on Fri, 10/12, by gas station/ISB. 594-2905.

#### For Rent

ISLANDIA – 1/bdrm bsmt apt w/3 full windows, partially below grnd, single adult, no pets, non-smkr, util incl. \$900/mo. Angelo, 455-6504.

MASTIC – Cozy 2-bdrm single family house, 1 bath, lr/dr combo, fenced yard. Small pet considered. 2-mo. sec. Utilities not included. Avail. Nov. 1. \$1,525/mo. 775-8703.

MASTIC – Victorian 3 bdm house, 2full bath, L/r, wf/p, formal D/r, new big eik, close to everything 8 min to BNL, no smkg/pets, 1 mo sec. \$1,800/mo neg. 210-369-8254.

MATTITUCK – v/priv, 1 bdrm gar apt, totally sep from main hse, priv drway. furn/ unfurn, really nice landlords. \$1,100/mo. Denis or Sharon, 298-8104.

MILLER PLACE – adorable 3 bdrm, 1 bath, eat eik, park-like grnds, w/d, avail, 11/15. \$1,600/mo neg. 681-9859.

SHOREHAM – on cul-de-sac, 1 bdrm & 1 sml office, l/r, kitchen, full bath, priv ent, drwy, own thermostat, a/c, cable, DVR box & int, w/d, perfect for single or couple. \$1,350/mo. 445-7838.

WADING RIVER – new 1/bdrm apt, l/r-kitch combo, lots of closets, bonus room for computer, 15 min to BNL, incs all, non-smkr. \$1,300/mo. 516-659-1050 or cfrankie211@yahoo.com.

#### For Sale

BAYPORT – Frank Lloyd Wright-style, 2,300 sq ft house, 1 wooded acre nr Grt S. Bay, 4 bdrm, 2 & half bath, open flr plan, lg windows, radiant heat, screened porch, excel schools. \$499,000. 617-332-6264.

CORAM – 1/1g bdrm co-op, updated kitch & b/r, laundry across from unit, in/ outdr pool & gym. \$99,900. Warren, Ext. 8329 or whalbig@bnl.gov.

MANORVILLE – The Greens 2 Bdrm Condo, 2 bath, Bottom Unit, new windows/ water heater, f/p, Patio, overlooking Pond. \$269,000. 718-738-3132.

MASTIC – 8 yrs young Victorian, 6 bdrm, 4 full bath, l/r w/fp, family rm, f/dr, office, 4/zoom heat, full fenced property, sprinkler. lots more, 20'w new drway, 8 min to Lab. \$280,000 neg. 210-369-8254.

MIDDLE ISLAND – 2 bdrms, eik, all wood flr, gated w/golf court, 2 club hses w/in/ out pools, whirlpools, excise rm, tbl tennis, tennis crt, pool rm, activity & mahjong rms. \$219 neg. Annmarie, 516-647-9849.

PATCHOGUE – fully updated, move in ready 3/bdrm 2/bath home, see pics at MLS# 2527567. \$219,000 neg. 901-4302.

PORT JEFF STATION – 3 BR 2 bath Coop (2nd flr), new: bathrms, neutral w/w rugs, appliances. Gated community w/ swimming pool, BBQ, laundry on premises. Renr SBU & BNL. \$142,000. 431-4551.

ROCKY POINT – 4 bdrm, 4 ba chalet, 1.2 wooded acres, nr beach, EIK, granite counters, ss appls, huge lvrn, dr, fp, hardwood flrs, porch, A/C, 2-car gar, igs, quiet n/hood, legal m/d. \$435,000. 894-4320.

SAYVILLE – Expend'd ranch, 10 rms + SunRm. Incldn den w/ fireplace, 3BR & 1 1/2 baths up, 3 rms + 1/2 bath dwn, IGP, CAC, 1 car garage. New kitchen, heating system, gutters, \$340,000. 431-4551.

#### Services

A list of services provided by BNL employees or their immediate families is available, call Ext. 2346 and leave an address for a paper copy or contact [lseubert@bnl.gov](mailto:lseubert@bnl.gov).