the Bulletin

BROOKHAVEN NATIONAL LABORATORY

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## BNL Scientists Develop New Imaging Method

Funded by DOE's Office of Basic Energy Sciences, BNL scientists have developed a novel imaging method, "ion-pair imaging spectroscopy," that helps develop a better understanding of the properties of previously hard-to-study molecules.

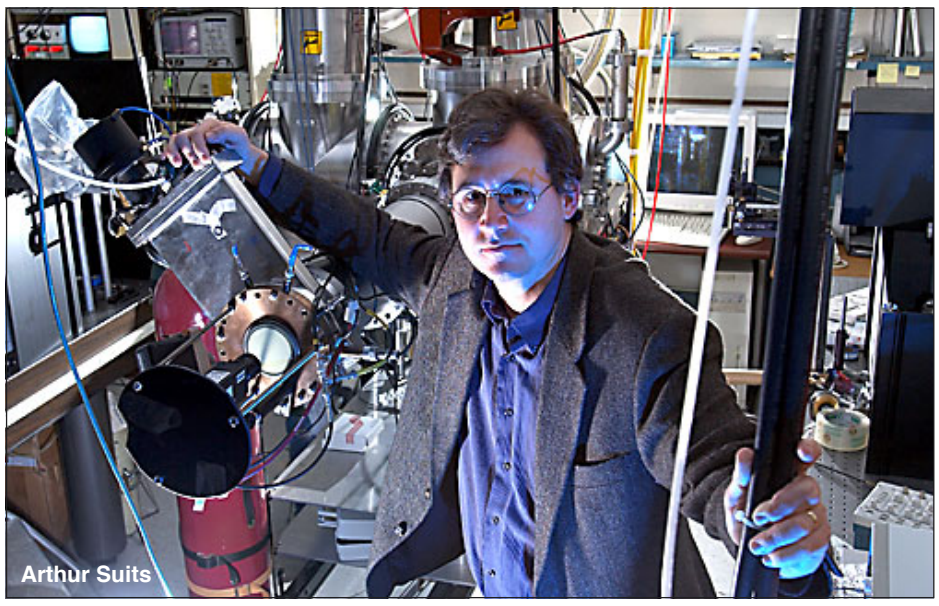
Ions are atoms that have been stripped of their electrons. Scientists use advanced imaging detectors to "see" ions and determine their structure. "Imaging ions has received a lot of attention in recent years because this is a powerful means of studying a variety of fundamental chemical events," said Arthur Suits of BNL's Chemistry Department.

Suits leads the BNL ion-imaging research featured in the December 21 issue of *Science*. "We have developed a new tool to look at ions that, in certain cases, offers significant advantages over other methods," he said.

Information on ions is important in developing thermochemical scales, which are used in predicting chemical reactions, and for testing theoretical methods widely used in quantum chemistry. In addition, this information could be important in understanding astrochemistry, the study of chemical interactions between interstellar gases and dust, where ions play a major role.

Other collaborators on the project include Xianghong Liu of BNL's Chemistry Department, and Richard Gross,

*(continued on page 2)*



Arthur Suits

Roger Stoutenburgh D1080302

## Fowler Wins Seaborg Award For Nuclear Chemistry

Joanna Fowler of the Chemistry Department has won the 2002 American Chemical Society's (ACS) Glenn T. Seaborg Award for Nuclear Chemistry. The award, which includes $3,000 and a citation, will be presented to Fowler at the ACS national meeting, April 7-11, in Orlando, Florida.

Fowler is cited "for her pioneering contributions to positron emission tomography [PET], including the development of fluorine-18-fluorodeoxyglucose [FDG], a radiotracer used worldwide for measuring brain function and for diagnosing cancer; and for the development of tracers for monoamine oxidase [MAO] found to be reduced in the brains of smokers."


Joanna Fowler

Roger Stoutenburgh CN3-161-98

"I am honored to receive this award," said Fowler. "My career as a chemist has taken me on many rewarding paths. There is still so much to uncover concerning the human brain and its diseases, such as addiction. PET and other imaging tools at BNL will help my colleagues and me to continue investigating these major medical problems."

PET is a research and diagnostic tool that enables researchers to see images of the brain as it functions. In collaborative studies using PET, Fowler has made major contributions to the understanding of biochemical processes in addiction, aging, and drug action.

In addition to developing FDG, her achievements include showing the binding sites of cocaine in the human brain and developing radiotracers to map the enzyme MAO, important in treating Parkinson's disease and depression.

As head of BNL's PET Research Group, Fowler has helped the Lab's PET facility

*(continued on page 2)*

## Milestone in U.S. ATLAS Construction Achieved at Brookhaven

After three years of effort, the Physics Department's team led by Tom Muller and Bob Hackenburg, with help from approximately 90 other BNLers working on the ATLAS project, has reached a new milestone: They have just shipped 64 electrical signal "feedthrough" devices designed and assembled at BNL for a future high-energy physics experiment at CERN, the particle physics laboratory in Geneva, Switzerland.

The size of a seven-story building, the experiment, dubbed ATLAS (A Toroidal LHC ApparatuS) will operate at what will be the world's highest-energy accelerator, the Large Hadron Collider (LHC), now under construction at CERN.

The BNL-developed feedthroughs will collect signals produced by one of the main ATLAS subdetectors, a cylindrical-like structure called a liquid argon electromagnetic calorimeter. It will measure the energy deposited by elementary particles called electrons and photons. This calorimeter is enclosed by a large insulated vessel, the ATLAS barrel cryostat (see photo below, left), that was designed by an earlier BNL team led by Jack Sondericker, Physics.

"These one-of-a-kind feedthroughs act like the part of the nervous system of the calorimeter," says Howard Gordon, leader of the U.S. ATLAS group and Physics Associate Chair. "They bring all the signals from

*(continued on page 2)*

**BNL's Deputy Director for Operations Thomas Sheridan (front, third from left), and Associate Laboratory Director for High Energy & Nuclear Physics Thomas Kirk (front, third from right) joined David Lissauer (second row, third from right), Bob Hackenburg (front, left), Tom Muller (front, second from left), Jack Sondericker (front, second from right), and other attendees at the U.S. ATLAS electrical signal feedthrough milestone luncheon who are surrounding a fixture in which the feedthroughs were tested.**


Roger Stoutenburgh D0020402

**Left: A view of the "A" end of U.S. ATLAS's barrel cryostat at CERN. Each of the cryostat's two ends has 32 BNL-designed-and-assembled feedthroughs installed around the rim.**

# Calendar

## of Laboratory Events

- *The BERA Sales Office is located in Berkner Hall and is open weekdays from 9 a.m. to 3 p.m. For more information on BERA events, contact Andrea Dehler, Ext. 3347; or M. Kay Dellimore, Ext. 2873.*
- *Additional information for Hospitality Committee events can be found at the Lollipop House and the laundry in the apartment area.*
- *The Recreation Building (Rec. Bldg.) is located in the apartment area.*
- *Contact names are provided for most events for more information.*
- *Calendar events flagged with an asterisk (*) have an accompanying story in this week's Bulletin.*

## — EACH WEEK —

**Mondays: BNL Gospel Choir**

5:15-7 p.m. Berkner Hall. www.bnl.gov/bera/activities/choir/.

**Mon., Tues., & Thurs.: Aqua Aerobics**

5:15-6:15 p.m. $2 pool fee per class or use pool pass. Mary Wood, Ext 5923.

**Mon., Tues., & Thurs.: Kickboxing**

$5 per class. Mon. & Thurs. noon-1 p.m. in the gym; Tues., 5:15-6:15 p.m. in the gym; Thurs., 5:15-6:15 p.m. in Brookhaven Ctr. Registration is required. Mary Wood, Ext. 5923, or wood2@bnl.gov.

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

Noon- 12:45 p.m., Rec. Bldg. Scott Bradley, Ext. 5745, bradley@bnl.gov.

**Tuesdays: Welcome Coffee**

10-11:30 a.m. Rec. Bldg. Hospitality event. Come and meet friends. The first Tuesday of every month is special for Lab newcomers and leaving guests. Hospitality Chair Mimi Luccio, 821-1435.

**Tuesdays: Toastmasters**

Meetings are 1st and 3rd Tuesday of each month at 5:30 p.m. in Bldg. 463, Room 160. Guests, visitors always welcome. www.bnl.gov/bera/activities/toastmstrs/default.htm.

**Tuesdays & Thursdays: Aerobics**

5:15-6:30 p.m., $4 per class. Rec. Bldg. Pat Flood, Ext 7886.

**Mon. Tues., Wed., Thurs., & Fri.: English for Speakers of Other Languages Classes**

Various times. Rec. Bldg., 2nd Floor. Learn English, Make friends. Jen Lynch, Ext. 4894.

**Wednesdays: On-Site Play Group**

9:30-11:30 a.m., Rec. Bldg. Parents meet while children play. Monique de la Beij, 399-7656.

**Wednesdays: Weight Watchers**

noon-1 p.m., Brookhaven Center South Room. Mary Wood, Ext. 5923, wood2@bnl.gov.

**Wednesdays: Yoga Practice**

noon-1 p.m., Rec. Bldg. Free. Ila Campbell, Ext. 2206.

**Wednesdays: Stretch**

5:15-6:15 p.m., $4 per class. Rec. Bldg. Pat Flood, Ext 7886.

**Wednesdays: BNL Ballroom, Latin & Swing Dance Club Lessons**

5-9 p.m. North Ballroom, Brookhaven Center.
• Register now for series 4 classes (see 4/10)
• Ballroom dance socials: 4/13 and 5/18.
Marsha Belford, belford@bnl. gov or Ext. 5053, or www.bnl.gov/bera/activities/dance.

**Thursdays: Falun Dafa Class**

noon-1 p.m., Free. Rec. Bldg. Falun Dafa refines the body and mind through exercises, meditation. www.falundafa.org.

**Fridays: BNL Social & Cultural Club**

7-11:30 p.m., Brookhaven Ctr., dance social. Rudy Alforque, Ext. 4733, rudy@bnl.gov.

## — NEXT WEEK —

### Tuesday, 4/9

**Healthline Lecture**

Noon to 1 p.m. Berkner Hall. Jennifer Mieres, Director of Nuclear Cardiology at North Shore University Hospital, will talk on "Women and Heart Disease: Concepts and Controversies." Mary Wood, Ext. 5923 or wood2@bnl.gov.

### Wednesday, 4/10

**Product Tech Fair**

9 a.m.-4 p.m., Berkner Hall. See the latest in linear motion, automation control, HVAC, power transmission, fluid power, and electric motor technologies and services. Carmela Riggio, 436-5090, carmela.riggio-kit@kaman.com.

**Rifle & Pistol Club Meeting**

Noon, Conference Room, Bldg. 535. Jim Durnan, Ext. 5993, Otto Jacobi, Ext. 2710, or www.bnl.gov/bera/activities/rpc/.

**BNL Ballroom, Latin & Swing Dance Club: series 4 starts**

Start of eight-week classes, 4/10-5/29, North Ballroom, Brookhaven Center:
•5-6 p.m. beginner mambo & merengue, (4 weeks per dance), cost based on enrollment/8 weeks.
• 6-7 p.m. advanced-beginner American peabody & International quickstep I (4 weeks per dance), $30/person/8 weeks.
• 7-8 p.m. intermediate American rumba & waltz review III & IV (4 weeks per dance), $35/person/8 weeks.
• 8-9 p.m. intermediate/advanced International rumba/cha cha and American bolero technique and principles (4 weeks per dance), $40/person/8 weeks.
To register, contact: Marsha Belford, belford@ bnl.gov or Ext. 5053; or Sue Perino, perino@ bnl.gov or Ext. 2483.

## Milestone in U.S. ATLAS Construction *(cont'd.)*

**At CERN, showing one of the BNL-designed electrical signal feedthroughs are: (front, from left) Bob Hackenburg, Tom Muller, both of BNL; Pierre Pailler, CERN; Todd Corwin, and Ken Sexton, both of BNL. Behind are: Peter Schilly (left), CERN; and David Pate, BNL.**

the calorimeter to the electronics, which are located outside. Once in position in the experiment, they will be almost inaccessible, so they have been designed to be absolutely reliable."

Each of the 64 feedthroughs that line the radial part of the cryostat (see photos, page 1 and above) is a three-foot-long complex cylinder with 30 cables inside to carry the signals. Because each cable conveys 64 electronic channels, each feedthrough carries 1,920 electronic channels, an unusually high number.

"An off-the-shelf feedthrough carries a dozen to 50 channels," says David Lissauer, who leads Physics' Omega Group. "But because we needed to carry so many channels, Dave Rahm [of Physics] worked with a BNL Instrumentation Division group to design feedthroughs that are about 50 times as dense, which is quite an achievement." Muller and his team then built up a factory in Bldg. 832 to turn the design into reality.

The cables transfer signals from environments with very different temperatures, which range from the –300˚ Fahrenheit of the liquid argon inside of the calorimeter to the outside ambient temperature. So, to minimize heat leaks, the cables needed to satisfy two apparently contrary requirements: to be good electrical conductors, but poor heat conductors.

"Cables usually have copper in them, which provides very good electrical and heat conductivity," says Lissauer. "So we used a stripline cable, which contains much less copper, but is a good electrical conductor and yet does not conduct much heat."

The various parts of each feedthrough underwent extensive tests before being assembled. Hackenburg, with Ken Sexton, Todd Corwin, both of Physics, and Muller looked for possible leaks; made sure that the signal quality was not degraded from one side of the feedthrough to the other; and tested that the channels' signals did not interfere with one another. The feedthroughs' assembly involved extensive welding operations that were performed by John Meade of BNL's Central Shops Division.

Once the feedthroughs were assembled, the Procurement & Property Management Division's Shipping & Receiving group sent them to CERN by airfreight in padded boxes that were mass-produced in the BNL Plant Engineering Division's Cabinet Shop. "The feedthroughs were sent four at a time to minimize potential damage during a single shipment," says Lissauer. The last four feedthroughs arrived on Tuesday, April 2.

Now at CERN, David Pate, BNL Physics, is conducting more tests of the feedthroughs and installing them in the ATLAS barrel cryostat. Steve Kane, also of Physics, has ensured that the welding of the feedthroughs conforms to code despite strict space constraints.

"We are very pleased that the assembly and shipping occurred as expected," says Lissauer. "This work was not only done on schedule, but it also satisfied the initial cost requirements."

"This milestone is proof of BNL's resources," adds Gordon. "So many people came together to make this a success. It is a great tribute to the Lab."

Lissauer and the team are now developing and testing the electronics that will collect the signals to be delivered by the feedthroughs. "We are working with a company to produce system crates for the electronics that will be located at the output of every feedthrough," he says. "The challenges are to make the electronics resistant to the radiation emitted by the LHC accelerator, and develop an efficient cooling system to absorb the heat generated by the 100,000 electronic channels."

BNL's ATLAS scientists, engineers, and technicians are looking forward to witnessing the first moments of ATLAS's data taking, but they might also hold their breath.

"ATLAS will work like a space project," Lissauer says. "When it is assembled and working, you cannot go back inside and change anything that goes wrong. The components have to be completely reliable. However, the team is very confident that with all the testing and re-testing that has been done, the feedthroughs will perform as designed." — Patrice Pages

*"This milestone is proof of BNL's resources. So many people came together to make this a success. It is a great tribute to the Lab."*
*— Howard Gordon*

## Ling-Chi Wang Talk at BNL, 4/12

***Wen Ho Lee Case Impact on Asian-American Scientists, Engineers***

All are invited to a talk by Ling-Chi Wang, Chair of the Ethnic Studies Department at the University of California at Berkeley, at noon on Friday, April 12, in Berkner Hall, on "The Impact of the Wen Ho Lee Case on Asian American Scientists and Engineers."

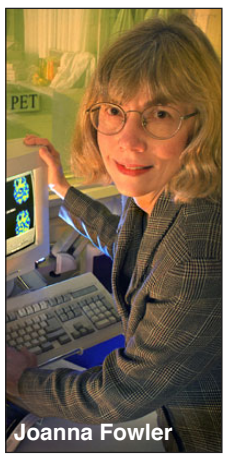
Ling-Chi Wang

Join Wang afterward for a discussion in Berkner Hall, Room D, from 3:30 to 5 p.m.

This talk is sponsored by BNL's Diversity Office, the BNL Asian Pacific American Association, and Stony Brook University's Asian American Faculty Staff Association.

## Fowler Wins Seaborg Award *(cont'd.)*

gain worldwide renown for its forefront discoveries. She has also been active in bringing BNL's Center for Imaging & Neurosciences to fruition. Researchers at the center use PET and high-field magnetic resonance imaging to investigate the workings of the human brain. Fowler's work is supported by DOE's Office of Biological & Environmental Research and the National Institutes of Health.



Joanna Fowler

Fowler's many honors include: twice winning the Jacob Javits Investigator Award in the Neurosciences, once in 1986 with the late Alfred Wolf, who was a BNL senior chemist, and again, solo, in 1992; the 1988 Esselen Award for Chemistry in the Public Interest from the ACS; a 1994 R&D Award from BNL; the 1997 Paul Aebersold Award from the Society of Nuclear Medicine; the 1997 Biological & Environmental Research 50 Program Recognition Award for Exceptional Service from DOE and the National Research Council; the 1998 Francis P. Garvan-John M. Olin Medal from the ACS; and a 1999 E.O. Lawrence Award from DOE.

Among her professional activities, Fowler is on the Board of Scientific Counselors of the National Institute on Drug Abuse and the Board of Directors of the Society for Nuclear Imaging in Drug Research. She has published more than 250 papers in peer-reviewed journals, and she holds eight patents for radiolabeling procedures.

— Diane Greenberg

*For more information, go to http://www.bnl.gov/bnlweb/pubaf/pr/2002/bnlpr032802.htm.*

## New Imaging Method *(cont'd.)*

a graduate student in chemistry at Stony Brook University.

### Existing Techniques

Suits explained that, typically, scientists learn about the properties of ions by using one of two methods: photoelectron spectroscopy and absorbed laser light.

In photoelectron spectroscopy, scientists start with a neutral molecule and use light to eject one of its electrons. By determining the energy of that electron, they can then map the structure of the remaining positively charged ion.

Alternately, by the absorbed laser light technique, scientists can expose the ions themselves to laser light and determine aspects of the ion's structure by seeing how much light is absorbed at different colors.

Both of these approaches have drawbacks, however. Photoelectron spectroscopy cannot be used to study a variety of fundamental ions that lack a neutral precursor or that possess a very different geometry from that precursor. Using absorbed laser light is technically very difficult to achieve. As a result, little experimental data exist for many fundamental ion systems.

### BNL Solution

To determine the structure of some of these systems, Suits and his colleagues tried looking at the ions directly.

"Our method is comparable to photoelectron spectroscopy, but, instead of ejecting an electron and looking at its energy to determine the energy levels of the ion left behind, we eject a negatively charged ion and use its energy to determine the energy levels of the positively charged ion left behind," said Suits.

"We worried that because the negative ion is so much heavier than an electron, this could cause rotation of the ions, which would blur the images," he continued. "Instead, we find that we can actually see the energy of individual rotations of the ions, giving us even more information about their properties."

For the experiments described in *Science*, Suits chose methyl chloride, because ejecting the chloride ion would give information on the positively charged methyl ion, one of the simplest hydrocarbon ions.

The team wants to use their technique on other species of ejected ions, including hydrogen, to determine its range of usefulness. "The big question now is just how general this will be," said Suits. "If we are able to go to higher energies and use hydride as the negative ion, that would make this a much more general probe for many ion species." — Peter Genzer

*For more details, go to www.bnl.gov/bnlweb/pubaf/pr/2002/bnlpr010302b.htm.*

# Two High School Students Win BNL's 'Discovery' Art Prize

A haunting photograph of a lone figure setting forth along a railroad track into dark blue distance won Stacey Quick of East Islip High School BNL's 2001 High School Seniors' Art Prize. The prize, a $500 U.S. Savings Bond, was awarded for this year's best interpretation of the theme of "Discovery."

An additional prize of a $100 Savings Bond was also awarded to Adriana DiGennaro of Mount Sinai High School, whose painting of "How the Universe Will End" showed the artist's awareness of the mystery and apprehension that can accompany the adventure of scientific discovery.

The prizes are awarded by the BNL Art Society and sponsored by Brookhaven Science Associates. In holding the contest, "We seek to encourage young artists within our community to express their ideas on science and its impact on society," said Society President Robert Chrien.

The BNL Art Society chose Quick and DiGennaro's work from the approximately 150 art pieces displayed in the 2001 High School Art Show sponsored by the South Bay Art Association (SBAA) in Bellport. The BNL prize-winning artworks were displayed at the Lab during the BNL Art Society's annual show of employee work held last November.

Quick's outstanding photo, "Frozen Trails," was cited by the BNL Art Society's Garman Harbottle of the Chemistry Department as a noteworthy composition, well deserving the BNL "Discovery" award.

"The overlay of color moves the work from the realm of the everyday into a strange and almost mystical realm that engages the viewer emotionally. The theme of 'discovery' permeates this work, for there is no explanation of the why and wherefore of the walker, the tracks, and the unknown destination in the mystical realm. BNL scientists are always making their way down a set of well-defined tracks — what is called the scientific method — applied to what we already know about a problem to reach a destination that is altogether unknown. We feel that this journey, which we all make in our approach to scientific discovery, is implicit in this work."

Quick, whose photography teacher at East Islip High School is Paula Feiner, will graduate this spring and plans to major in photography. Accepted at New York University and the University of Massachusetts at Amherst, Quick is also considering other schools.

DiGennaro, whose art teacher at Mount Sinai High School is Susan Kent, is also a poet who has won Long Island-wide writing prizes since the sixth grade.

Last year, Writers Ink Press published *Peripheral Vision*, a collection of DiGennaro's work. A strong visual element in her writing appears in phrases such as "trees painted on breezes of the afternoon;" angry voices that "throw themselves into the air like heavy, jagged rags;" a young girl in love whose heart "is the sky on Independence Day, full of explosions, color and light." After her graduation this spring, DiGennaro will major in creative writing at a liberal arts college.

This is the third year that BNL has awarded the Discovery prize to a high-school senior participating in the SBAA's annual High School Art Show.

Said Chrien, "We see that the Lab's mission encompasses not only research, but also education — and education can be a two-way street. By learning how talented young students view science, we get a better idea of how we can deepen people's understanding of our work."

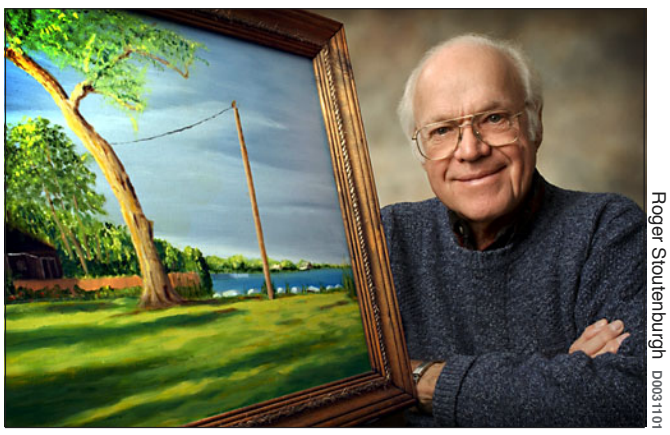
— Liz Seubert

Joseph Rubino CN11-15-01


Joseph Rubino CN11-16-01

**(Above) Stacey Quick of East Islip High School won BNL's 2001 High-School Seniors' "Discovery" art prize for her photo, "Frozen Trails."**

**(Left) Adriana DiGennaro of Mount Sinai High School, who holds her book of poems, *Peripheral Vision,* won an additional prize for her painting, "How the Universe Will End."**


Roger Stoutenburgh D0031101

**BERA Member Ray Rueger, husband of Doris Rueger, Director's Office, exhibited his painting of Bellport harbor at the November BERA Art & Craft Show sponsored by the BNL Art Society.**

## Dress For Success Clothing Drive

This year's Dress For Success clothing drive, which is coordinated with the Town of Brookhaven, will be held from Wednesday to Friday, May 8-10. As in the past, this is a collection of business attire for women re-entering the workforce.

Clothing collected must be in excellent condition, dry cleaned, and on hangers. For more information, contact Cindy McQuilken, Ext. 2396, or Kathleen Gurski, Ext. 4748.


The Hospitality Committee will sponsor a bus trip to Manhattan on Saturday, April 13, leaving the Lollipop House at 9 a.m., leaving the city at 6 p.m. Purchase tickets at $10 per adult, $5 per child ages 2-12, at the Recreation Bldg. on Tuesday, April 9, 10 a.m.-noon, and Wednesday, April 10, 11 a.m.-noon. For information, contact Mimi Luccio, 821-1435.

## COMPUTER TRAINING

### HTML Beginners, 4/16

For more information, registration forms, and class schedules, visit the ITD training page at: http://training.bnl.gov/.

### VHDL Programming

A Very High Speed Integrated Circuit Hardware Description Language (VHDL) training program has been scheduled for May/June. Classes will meet on May 16, 23, and 30, and June 6 and 13, from 9 a.m. to 4 p.m. in Room M1-57, Bldg. 515. The fee for this five-day class is $1,355, which includes books. To register, send an ILR for the amount to Pam Mansfield, Bldg. 515, by April 19.

## Arrivals & Departures

### *Arrivals*

| | |
|---|---|
| Mary Jane Bartholomew | Env. Sci. |
| Jennifer Bromley | ISD |
| Ratnakar Chitte | Biology |
| Stasia Scocca | Quality Mgmt. |
| Soh-Joung Yoon | Env. Sci. |

### *Departures*

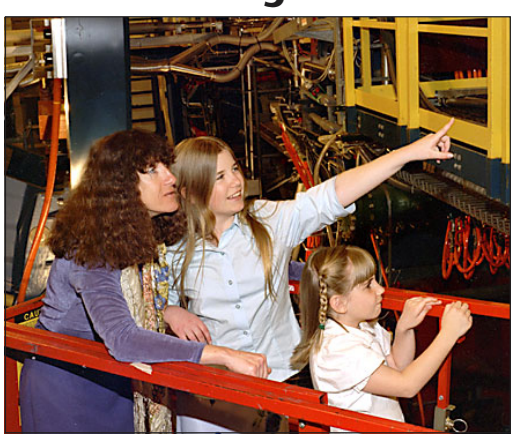
| | |
|---|---|
| In-Gyu Baek | NSLS |
| Isabel Campos | CDIC |
| Joel Carney | Chemistry |
| Joseph Hanson | ISD |
| Sven Heinemeyer | Physics |
| Maryann Larese | ES&T |
| John Lascari | Plant Eng. |
| Marco Leite | Physics |

## Join the Party at BERA's Spring Fling, 5/10

BERA's Spring Fling will be held at the Rock Hill Country Club, 6:30 p.m.-midnight. The cost is $15 per person, which includes a hot and cold buffet and music by DJ Johnny; a cash bar is available. Buy tickets from the BERA Sales Office, Andrea Dehler, Ext. 3347; Laurie Pearl, Ext. 5520; Louie Nieves, Ext. 4897; or John McCaffrey, Ext. 2075.

*Other scheduled BERA events are: Long Island Ducks Tickets; an Atlantic City bus trip, May 11; a dinner cruise around Manhattan on July 3; and a New York Yankee game on August 9. Get tickets at the BERA Sales Office.*

## 'Take Our Daughters to Work' Day, 4/25


Roger Stoutenburgh D0031101

**Last year, Fulvia Pilat of the Collider-Accelerator Department brought Katharina (left), Alexandra (right), and Angelica (not pictured), her three daughters, to see the Lab on "Take Our Daughters to Work" Day.**

On Thursday, April 25, BNLers are again invited to bring their daughters of ages 9 to 15 to the Lab. During the day, the girls may discover what their parents do for a living and consider if a career in science is in their future while participating in the planned on-site activities.

To register, complete and return the coupon at the bottom of a flyer sent to all employees to Susan Foster, Human Resources Division, Bldg. 185. Participation is limited to 200 girls, so a waiting list will be established. If a registered girl is unable to attend, then notify Foster, Ext. 2888, so that another girl may go in her place. Parents who work in areas that minors may not visit and who are unable to arrange for "host parents" for their daughters should indicate on the coupon that a host parent is needed.

For more information, contact Foster, Ext. 2888.

# Calendar

***(continued)***

## Thursday, 4/11

**Sprint PCS Demo**

11 a.m.-2 p.m., Berkner Hall. A representative from Sprint PCS will provide BNLers with information about Sprint's products and services. Ken Ruland, 463-6123, or James Buschle, 764-5825.

## Friday, 4/12

***Diversity Office & BNL Asian Pacific American Society Sponsored Lecture**

noon-1 p.m., Berkner Hall. Ling-Chi Wang, Chair of the Ethnic Studies Department at the University of California at Berkeley, will talk on "The Impact of the Wen Ho Lee Case on Asian American Scientists and Engineers. See page 2.

Wang will also hold a discussion in Berkner Hall, Room D, from 3:30 to 5 p.m. For more information, see www.apaa.bnl. gov/april12.htm.

**GLOBE Meeting**

The Gay, Lesbian, and Bisexual Employee Club at BNL will hold its monthly meeting at 7 p.m. Plans to celebrate Gay Pride Month in June will be discussed. For the meeting's location, contact Debbie Bauer, Ext. 5664, or Mike Loftus, Ext. 2960. For more information about the GLOBE club, see www.bnl.gov/bera/activities/globe.

## Saturday, 4/13

***Manhattan Bus Trip**

$10 per adult, $5 per child (ages 2-12). The Hospitality Committee invites all BNLers to join a bus trip to Manhattan. See notice below. Mimi Luccio, 821-1435.

**BNL Ballroom, Latin & Swing Dance Club: April Saturday Social**

8-11:30 p.m., monthly informal evening of ballroom, Latin & swing dancing to the MacIntosh MP3 Laptop Orchestra. Marsha Belford, belford@bnl.gov or Ext. 5053.

## — WEEK OF 4/15 —

## Wednesday, 4/17

**372nd Brookhaven Lecture**

4 p.m., Berkner Hall. Bill Weng of the Collider Accelerator Department will present the 372nd Brookhaven Lecture, "An Overview of the SNS Project: A Personal Perspective."

## Thursday, 4/18

**BWEN Seminar**

noon-1 p.m., Berkner Hall, Room B. Noreen O'Donnell of the Information Services Division will be this month's Brookhaven Women Engineers' Network speaker. Arlene Zhang, Ext. 5369, arling@bnl.gov.

**BAC Meeting**

12:30-1 p.m., Berkner Hall, Room D. Brookhaven Advocacy Council Meeting, Open Session. www.bnl.gov/bac.

**BERA Bridge Club**

7 p.m., Berkner Hall Cafeteria. Morris Strongson, Ext. 4192, mms@bnl.gov.

## — WEEK OF 4/22 —

## Monday, 4/22

**IBEW Meeting**

6 p.m., Knights of Columbus Hall, Railroad Ave., Patchogue. A meeting for shift workers will be held at 3 p.m. in the union office. The agenda includes regular business, committee reports, and the president's report.

## Tuesday, 4/23

**Healthline Lecture**

Noon to 1 p.m., Berkner Hall. Carolyn Gallogly, Associate Dean at St. Joseph's College, will present "Vital Aging: A New Vision of Growing Older." All are welcome. Check your mailbox for registration information. Mary Wood, Ext. 5923 or wood2@bnl.gov.

## Saturday, 4/27

**Defensive Driving Course**

9 a.m.-3:30 p.m., Berkner Hall, Room B. BNL & DOE employees, visitors, guests and their families are welcome. Send check for $23 per person, made out to Empire Safety Council, in care of Scott Zambelli, P.O. Box 670, Mount Sinai, NY 11766. Include your telephone number. Checks must be received by April 19.

***Note: This calendar is updated continuously and will appear in the Bulletin whenever space permits. Submissions must be received by the preceding Friday at noon to appear in the following week's Bulletin. Please enter the information for each event in the order listed above (date, event name, description, and cost) and send it to bulletin@bnl.gov. Write "Bulletin Calendar" in the subject line.***

# Classified Advertisements

## Placement Notices

The Lab's placement policy is to select the best-qualified candidate for an available position. Candidates are considered in the following order: (1) present employees within the department/division and/or appropriate bargaining unit, with preference for those within the immediate work group; (2) present employees within the Laboratory; and (3) outside applicants. In keeping with the Affirmative Action Plan, selections are made without regard to age, race, color, religion, national origin, sex, disability or veteran status. Each week, the Human Resources Division lists new placement notices, first, so employees may request consideration for themselves, and, second, for open recruitment. Because of the priority policy stated above, each listing does not necessarily represent an opportunity for all people. Except when operational needs require otherwise, positions will be open for one week after publication. For more information, contact the Employment Manager, Ext. 2882; call the JOBLINE, Ext. 7744 (344-7744), for a list of all job openings; use a TDD system to access job information by calling (631) 344-6018; or access current job openings on the World Wide Web at www.bnl.gov/JOBS/jobs.html.

**LABORAT0RY RECRUITMENT** - Opportunities for Laboratory Employees

TB2450. ADMINISTRATIVE SECRETARY (A-2) – Requires formalized secretarial training or equivalent, six years of pertinent experience, of which at least two years should be as Sr. Secretary, excellent oral and written communication skills and ability to set priorities and work independently. In addition, requires expertise in domestic/foreign travel system and collaborator/consultant reimbursements. Must possess a high level of proficiency in performing highly complex administrative secretarial functions. Thorough knowledge of Laboratory practices, policies, and procedures related to assigned administrative functions is required. Proficiency with MS Word, MS PowerPoint, and technical word processing is highly desirable. Will be responsible for providing clerical, secretarial, and administrative support to the Department Chair, Department staff, and administrative personnel and maintaining confidential administrative records and reports with considerable planning, coordination, and follow-through. Chemistry Department.

**OPEN RECRUITMENT** – Opportunities for Laboratory employees and outside candidates.

NS7237. SR. EDUCATIONAL PROGRAMS REPRESENTATIVE (A-6) – Requires a bachelor's degree, a master's of elementary education or middle school education preferred, plus five years of teaching experience in elementary and middle school. Should have knowledge of and teaching experience using the Inquiry Method. Must be detail oriented, highly organized, and able to follow through on all projects in a timely manner. Strong interpersonal and communication skills with the ability to work well in diverse group settings are necessary. Prior supervisory experience would be valuable. Knowledge of MS Word and Outlook is required. In addition to teaching in the Science Museum, responsibilities will include coordination of Museum educators, programs, and visitors, assisting in the development, design, and interpretation of Science Museum programs, and assisting with educator training, and piloting new programs. Community Involvement, Education, Government & Public Affairs Directorate.

NS2105. APPLICATIONS ENGINEER (I-6) - Requires a BS degree in computer science or related field with at least three years' experience in real-time software development and hardware and software integration. Experience in C and C++ programming language required. VXWorks experience highly desirable. Java experience a plus. Should have demonstrated skills in problem solving, software design, hardware/software system integration techniques, and debugging of networked systems. Will participate in designing and developing embedded software for real time systems in the AGS/RHIC control system. Will work closely with hardware specialists in the system integration process and will be expected to provide support for new and existing systems. Collider Accelerator Department.

## Services Move to Web

### *New Master List Needed*

The service announcements that typically appear in the Bulletin on the first Friday of each month will soon be available to BNL internal audiences at http://intranet.bnl.gov/bulletin/services.htm. Services will only appear on the Web at the request of the BNL employee placing the ad.

The full service list will continue to be printed in the Bulletin; however, due to limited space, services will not appear as regularly.

The Bulletin is establishing a new master service list and requests that all BNLers who wish to advertise a service, including those who have previously listed services with the Bulletin, submit a new service ad form. Service forms are available in the Bulletin lobby, Bldg. 134, on the Web at www.bnl.gov/bnlweb/pubaf/bulletin.html, or mailed to you at your request, call 344-2345. Do not submit services unless they comply with the following policy:

### Service Policy

- Use the Services form to advertise that you or members of your immediate family living within the same household are willing and qualified to perform work for others.
- Services must be performed by the employees who are advertising them or members of their immediate family living within the same household.
- No advertisement for services offered in association with regular businesses or commercial enterprises will be accepted.
- In filling out the Services forms, use no more than 20 words.

the Bulletin

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**LIZ SEUBERT,** editor
**JOHN GALVIN,** reporter
**ROGER STOUTENBURGH,** photographer

On the World Wide Web, the Bulletin is located at www.pubaf.bnl.gov/bulletin.html. A Weekly Calendar listing scientific and technical seminars and lectures is found at www.pubaf.bnl.gov/calendar.html.

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