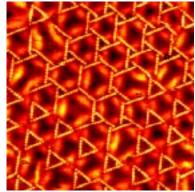
Bulletin



Vol. 55 - No. 18 May 25, 2001

'Dancing Triangles' Intrigue Chemists, Physicists

The pattern of triangles and hexagons shown here takes on an even more fascinating beauty when you realize it is made up of individual atoms. The image was made by Jan Hrbek, Acting Chair of the



"Dancing triangles"

Chemistry Department, and collaborators from Sandia National Laboratory in Livermore, California, using scanning tunneling microscopy (STM). It shows the arrangement of sulfur atoms (bright spots) on a layer of copper over a ruthenium substrate.

"We are trying to understand how one metal behaves on top of another, and how sulfur affects that interaction," Hrbek says.

Layered pairs of metals are commonly used in catalysts such as those that clean pollutants from automobile exhaust in catalytic converters. Copper on ruthenium, Hrbek says, would make a particularly good model catalyst.

But sulfur, a common air pollutant, can "poison" the catalyst, destroying its effectiveness. "There is a lot of chemistry and physics involved in understanding this," he says.

Shining a light on the problem

Work being done at the National Synchrotron Light Source (NSLS) by Hubert Zajonz of the Physics Department and Doon Gibbs, leader of the Solid State Physics group in Physics, may shine some light on the

problem, literally. The physicists are using x-rays to determine how metallic atoms like copper arrange themselves on ruthenium. "We want to know what the structures are as you

put down more and more copper, how they change, and how that depends on temperature," Gibbs says.

Zajonz adds, "We think that this knowledge is crucial for understanding, controlling, and designing bimetallic catalysts."

By beaming x-rays at samples and studying how the beams scatter, the physicists can pinpoint how the atoms line up, and look for changes as copper atoms are added.

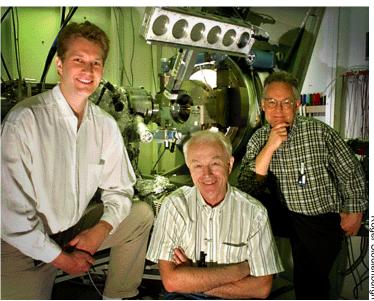
Using analytical techniques developed by Zajonz, the physicists have found that a single layer of copper atoms follows the layout of the ruthenium atoms in the substrate.

"But when you put down a second layer, even just one atom more than a single layer, there is a sizeable shift of positions," Gibbs says. The result is a striped pattern. Additional copper results in the formation of bulk copper "islands" about 100 atoms across.

The next step will be to look at the effect of adding sulfur.

Complementary approaches

With Hrbek's STM technique, which essentially scans the sur-



At the National Synchrotron Light Source are (from left) Hubert Zajonz, Physics Department, Jan Hrbek, Chemistry Department, and Doon Gibbs, Physics.

face atom by atom using a needlelike probe, the sulfur atoms are seen to organize themselves into triangles and closely packed hexagons, while the copper stripes bend to form trigons. All this happens before the sulfur reacts chemically with the copper and alters the catalytic activity.

Hrbek describes the arrangement as dancing triangles: "If you want a pair to tango properly, you have to get them together. This is exactly what you see, sulfur moving around and trying to find the right place for getting together with copper."

The x-ray technique, by contrast, scans larger areas and multiple layers, including the atoms in the ruthenium substrate. "It's completely complementary to STM," Gibbs says, "so it pays for us to work together."

Hrbek agrees, adding, "We can learn more by doing experi-

ments in collaboration." Using both techniques will help establish whether the patterns Hrbek's group is observing occur over large areas.

In addition to helping scientists understand the catalytic reactions, the atomic arrangements of copper, ruthenium, and other metals might turn out to be useful for other purposes.

For example, Hrbek says, one could imagine using the tiny grids as templates for building nanoscale structures, or using the techniques to make clusters of metallic particles with precisely controlled size distribution and chemistry.

"I have no idea what to use it for," says Gibbs, describing one of the intricate arrangements. But he wants to learn more, saying, "I think this is just beautiful."

– Karen McNulty Walsh

Hill Directs ER Projects

eslie (Les) Hill, an environ **⊥**mental manager with more than 20 years' experience, was named BNL's Director of Environmental Projects, effective April 16. Hill replaces Michael Schlender, BNL's Associate Laboratory Director for Environmental Management, who left BNL last December.

"Les's background in the field of decontamination and decommissioning work, most notably the Shoreham reactor; his experience dealing with waste disposal sites around the country; and his 'Let's get to work' attitude make him the perfect person to bring the restoration work at BNL to a conclusion," said Tom Sheridan, Deputy Laboratory Director for Operations.



Leslie Hill

In his new position, Hill heads a staff of 80-plus environmental and administrative professionals in the Environmental Restoration Division (ERD). ERD manages the ongoing environmental cleanup at BNL, focusing on soil and groundwater contamination on and near the site.

In his new role, Hill plans to focus on completing the environmental cleanup so that BNL can get back to its primary business — science. He believes that, although the site cleanup has progressed significantly over the past five years, several challenges remain, including the cleanup of the Peconic River, the decommissioning of BNL's three nowity consumer confidence reports closed reactors, and ongoing budget and management issues

"We have a great team of people here to face these challenges and a lot of seeds planted that are just starting to bear fruit," he said. "What we need now is a clear set of goals and objectives, and systems and procedures that ensure we have the focus in the right area and are making the biggest impact with available funding."

As the former manager of the Shoreham Nuclear Power Plant decommissioning project, Hill said he also recognizes the crucial importance of partnering with and retaining the support of the community.

"We need to make sure we are listening to all interested parties, especially on projects like the Peconic River, where people have many diverse viewpoints," he said. "We also should be proud of the work we are doing, (continued on page 3)

Independent Group Gives A+ to BNL's Water Quality Report

The independent Citizens Campaign for the Environment (CCE) has given the grade of A+ to BNL's 2000 Water Quality Consumer Confidence Report, which provides data for the year 1999.

The Lab operates a drinkingwater supply system for its onsite population of 2,900 employees, 4,000 guest scientists per year, and the families of visiting researchers living in the apartment area. Under the federal Safe Drinking Water Act, drinking-water suppliers such as BNL are required to produce an annual report to inform consumers about the water's quality.

CCE evaluated 18 reports issued last year by water suppliers with more than 1,000 service connections. Of the A to D grades assigned to the reports, Brookhaven Lab's A+ was one of only four "outstanding" grades given by CCE. The majority of grades were Bs and Cs.

According to CCE, the highest grades in this evaluation were given to the water suppliers that were effective in communicating important waterquality information in an easyto-read format. The CCE based its grades on an evaluation of



At BNL's Water Treatment Plant are some of the water treatment engineers and others involved in producing the Lab's drinking water. The annual report for year 2000 earned an A+ from an independent group. See page 2 for details on how BNL produces its drinking water.

Extra, Extra

Read All About Water

The 2001 BNL Water Quality Consumer Confidence Report was delivered to newsstands today as a special supplement to the Bulletin. Also, on page 2 of today's Bulletin, a photo essay by Roger Stoutenburgh details how the Lab produces its drinking water. Last year's A+ report and this year's edition can be found on the Web at www.bnl.gov/bnlweb/ pubaf/bulletin.

between 11 and 18 key components, including completeness of the information disclosed, clarity of definitions, readability, and report layout.

CCE and the Citizens Environmental Research Institute reviewed a total of 66 water qualfrom across New York State The full evaluation of the reports is described in a May 2001 document entitled "New York's Annual Water Quality Reports: A Report Card for 2000," available from CCE upon request at (516) 390-7150.

Citizens Campaign for the Environment is an 80,000member, grass roots advocacy organization working to build widespread citizen understanding for policies and promote actions designed to protect the natural environment and public health.

The Lab's annual Water Quality Consumer Confidence Report is prepared by Marsha Belford of Community Involvement, Government & Public Affairs, working with William Chaloupka of the Plant Engineering Division and Robert Lee of the Environmental Services Division.

The Bulletin May 25, 2001

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 —

Tuesdays: Welcome Coffee

10-11:30 a.m. Rec. Bldg. Newcomers meet friends. Mimi Luccio, 821-1435.

- Hospitality event

Wednesdays: On-Site Play Group

9:30 a.m.-11:30 a.m. Rec. Bldg. Parents meet while children play. Free, drop in any time. Monique de la Beij, 399-– Hospitality event.

Wednesdays: Yoga Practice Sessions

12:10-12:50 p.m., Rec. Bldg., free. Ila Campbell, Ext. 2206.

Wednesdays: Weight Watchers

noon-1 p.m., Brookhaven Center South Room, Mary Wood, Ext.5923.

Tues. & Thurs.: Aerobic Dance

5:15 p.m., Rec. Bldg. \$4 per class or \$35 for any ten classes. Pat Flood, Ext. 7886; or Susan Monteleone, Ext. 7235.

Mon., Tues., Thurs.: Kickboxing

noon-1 p.m., Mon. & Thurs. and 5:15-6:15 p.m., Tues. & Thurs. Mary Wood, Ext. 5923,

—WEEK OF 5/28—

Monday, May 28

Hospitality Cooking Exchange

10 a.m.-1 p.m., Rec. Bldg., \$2 for ingredients, call Marcia Leite, Ext. 1040, to attend. (Note time change from last week's Bulletin.)

Tuesday, May 29

11 a.m.-2 p.m., Berkner Hall Sprint PCS services. Scott Ditmar, (631) 431-8295.

Wednesday, May 30

Mountain Bike Ride

noon-1 p.m., Bldg. 438. All may join this "March Into May" 8-mile bike ride. Start at Science Educational Center, No. advance registration. Mary Wood, Ext. 5923.

Friday, 6/1

Divorced & Separated Support Group

noon-1 p.m., Berkner Hall, Room A. Divorced & Separated Support Group meets every 2 weeks. Mary Campbell, Ext. 4776, maryc@bnl.gov.

N.Y. Yankee Bus Trip

Yankees vs Indians. 4:15 p.m.-11:30 p.m. \$55 includes main level box ticket, bus transportation. Tickets at the BERA Sales Office.

Sunday, 6/3

*Hospitality Manhattan Trip

9 a.m. - 7 p.m. \$10 for adults, \$5 for children 2-12. See notice on page 3. Monique de la Beij, 399-7656.

Bulletin Special Supplement: 2001 BNL Water Quality Report

How Does BNL Produce Its Drinking Water?

Drawn from wells tapped into Long Island's Glacial Aquifer, BNL's drinking water last year, as in the past, was in full compliance with all county, state, and federal regulations.

In fact, the Lab's Plant Engineering (PE) Division, which is responsible for the Lab's drinking water, is proud to report that Brookhaven's water system has not violated any water-quality standard.

For more information about the quality of the Lab's drinking water, see the 2001 BNL Water Quality Consumer Confidence Report, a special supplement which was delivered to the newsstands along with this week's Bulletin.

So, how does the Lab produce drinking water which is purified, safe, and high quality? And who produces it?

This water is produced with pride by the staff of BNL's Water Treatment Facility (WTF) of the Plant Engineering Division, using what is identified as "federal public water system No. 511891." This community water system is the only source on site of what is called potable water for BNL's transient and resident population of 3,500 people.

The centerpiece of the Lab's drinking-water system is the Water Treatment Facility (WTF), located in and around Bldg. 624 on Upton Road. The WTF was built in 1963 to

tenance on pump motor.

1B. CARBON FILTRATION AT

WELLS 10, 11, and 12: (above) re-

moves any volatile organic compounds

before the low-iron water from these

wells directly enters the drinking-wa-

ter distribution system. Noting the pres-

sure of the carbon filtration system is

2. CHLORINATION: (above) of water

from wells 4,6, and 7 is performed at

this point to kill bacteria and oxidize

the iron in the water. Iron removal by

oxidation and filtration reduces the

water's iron concentration from 3 to 4

milligrams per liter (mg/l) to the "fin-

ished" water's 0.03 mg/l. Inspecting a

liquid sodium hypochlorite storage tank

3. AERATION TANK: (above) reduces

carbon dioxide gas and aids in the

oxidation of iron. At the aeration tank,

Steve Barcelo (right) describes the

action to Frank Masia.

Richard Lutz.

is Joe Tullo.



1A. WELLS 4, 6, and 7: (above) provide source water high in iron that is tion (no. 3) and before retention (no. 6) to raise the pH and soften the wa-"finished" at BNL's Water Treatment Facility (WTF). At one of these wells, ter. Feeding lime into the hopper is Phil Pizzo performs preventive main-





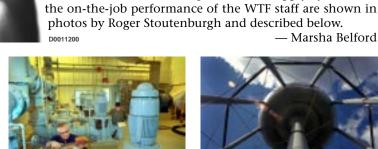
5. POLYMER: (above) is also added to the water after aeration to aid in a process called flocculation, whereby very small hydroxide particles stick together to form larger particles, called floc, which are more easily settled and removed (see no. 6). The polymer is mixed with the water in a rapid-mix tank. Steve Barcelo (left) is seen measuring the polymer, while Tom Boucher prepares to mix



the water long enough to allow the chemicals time to react and form floc. To aid in the formation of floc, the water is then sent to a slow-mix tank. At the retention tank are: (from left) Steve Barcelo, Jack Kulesa (who is checking for floc particles), and Richard Lutz, plus Frank Masia.



7. FILTRATION: (above) is performed, using what is called a rapid sand filter made up of eight filter cells containing sand and anthracite. Inspecting the valves in the filtration valve gallery are: (front to back) Jack Kulesa, Richard Lutz, and Steve Barcelo.



Environment.

most recently in 1995-96.

activated carbon filters.

8. WET WELL: (above) stores the filtered water before it is pumped into the air-stripping towers. While Jack Kulesa (background) is seen inspecting the wet-well pump seals, Richard Lutz works on a check valve.



AIR-STRIPPING TOWERS: (above) remove any volatile organic compounds (VOCs) from the water undergoing the WTF process by spraying the water down over whiffle balllike fill while air flows upward through the water spray. Inspecting the towers from the top is Steve Barcelo. Frank Masia looks on from below.



10. CLEAR WELL: (above) stores what is now called "finished" water before its final chlorination and distribution. Seen taking a water sample at the clear well are Jack Kulesa (left) and Richard Lutz.



11. HIGH-SERVICE PUMPS: (above) send the finished water from the WTF to the two water towers on site. Adjusting the flow rate of a high-service pump is Steve Barcelo.



– Marsha Belford

remove iron and manganese from the Lab's source water, but

the facility has undergone a series of upgrades over the years,

While there are six drinking-water wells on site, the water

from only three wells (numbered 4, 6, and 7) is delivered to

the WTF because that water is high in iron. Water from the

other three wells (numbered 10, 11, and 12) is low in iron,

so that water is distributed directly, after passing through

Drinking-water production is the role and responsibility

of Water System Supervisor Tony Ross, who holds a New

York State Department of Health (NYSDOH) grade IA certi-

fication. He is assisted by seven water-treatment engineers,

each having a NYSDOH grade IIA certification. They are: Steve

Barcelo, Tom Boucher, Chris Hanley, Jack Kulesa, Richard Lutz,

Phil Pizzo, and Joe Tullo. WTF operations are overseen by

The flow of water through the Lab's supply system and

William Chaloupka, PE Assistant Manager of Operations &

12. ONE-MILLION-GALLON WATER STORAGE TOWER: (above) as viewed from its base, is the larger of the Lab's two water towers. Built in 1985, and located at Cornell and North Sixth Street, this tank is 126 feet above the ground; its bowl is 75.5 feet in diameter. Located next to Police Headquarters. Bldg. 50, the other water storage tank holds 300,000 gallons and was built for the U.S. Army in 1941, when the site was Camp Upton. Water from the two towers is delivered on site via 45 miles of distribution pipe, which is a mix of cast iron dating from World War II Camp Upton, transite, plastic, and cement-lined ductile iron. When distribution pipe is added or replaced, cement-line ductile iron is



13. TESTING THE QUALITY OF BNL'S DRINKING WATER: (above) at the WTF is Tom Boucher. The Lab's drinking water is tested in various locations weekly, monthly, quarterly, semi-annually, and annually, depending upon the specific test. Test samples are analyzed by certified laboratories, and results are reported to the Suffolk County Department of Health Services, which conducts its own annual tests of all county water systems. In addition, the results are delivered to BNL's Environmental Services Division, which ensures that the Lab's water is in compliance with all applicable regulations. The results are summarized in the Lab's annual Water Quality Consumer Confidence Report: for the 2001 issue, see the Bulletin special supplement, also delivered to the newsstands today.

Water Quality Fact Sheet

For answers to frequently asked questions about BNL's drinking-water quality, go to www.bnl.gov/bnlweb/pubaf/ water/waterFAQ.pdf, or contact the Media & Communications Office, Ext. 5053.

The Bulletin May 25, 2001



Making plans for the First Brookhaven Retired Employees Association (BREA) get-together lunch are BREA Committee members: (front, from left) Secretary Sonja Santos, President Barney McAlary, Treasurer Alyce Daly; (back, from left) Special Events Coordinator Marge Stoeckel, Trudi Neuhoff, and Graham Campbell. Not pictured are: Helen Connell, Vice President Lew Jacobson, Les Lawrence, George Oldham, Betty Pergan, and George Rabinowitz.

Everyone who knows BNL, whether they are from way back when or not so far back when, is invited to attend the first Brookhaven Retired Employees Association (BREA) gettogether lunch, on Thursday, June 28, at Villa Lombardi, 877 Main Street, Holbrook.

"We want to gather as many people as possible," said Barney McAlary, Committee President. "We're hoping to see BNL retirees, long-time BNL employees, old friends from AUI and DOE — everybody! We'd be especially pleased to see anyone make it who had to take long-term disability."

The lunch — a "sumptuous hot buffet," to quote the invitation sent out to BNL retirees, and cash bar, will be offered from noon until 4 p.m. Paid reservations at \$25 per person must be received by June 15. With your check, send your name, address, phone number, and names of those who will attend to BREA, Bldg. 475, Upton, NY 11973.

"Please come," say the committee, "we expect you."

Holiday Notes

The Lab will be closed next Monday, May 28, in observance of Memorial Day. Therefore, The Bulletin will not be published next week; the next issue will appear on Friday, June 8. Note the following schedules:

Food Service: The cafeteria will be open from 7:30 a.m. to 2 p.m. on Saturday, Sunday, and Mon-

day, May 26-28. The Brookhaven Center will be closed on Saturday and Sunday, May 26 & 27, and will re-open on Monday, May 28, from 5 to 9 p.m.

Credit Union, Gym, Omega Leisure Travel Office, the Research Library, U.S. Post Office: Closed Saturday, May 26, through Monday, May 28.

Addition

In the article on Victor Emery, Fellow of the American Academy of Arts & Sciences (AAAS), in The Bulletin of May 18, 2001, the name of Jacob Bigeleisen, BNL's Chemistry Department 1948-68, was inadvertently left off the list of other BNL Fellows of the AAAS. The Bulletin regrets the omission.

Arrivals & Departures

Arrivals

Sudeep Mitra Env. Sci. & Tech. Connie J. Sadler Info. Tech.

Departures

Arthur Archibald	C-A
Paraskevas Demetriou	C-A
Glenn W. Mehl	Reactor
E. James Schermerhorn	S & H Svcs.
Ronald N. Tallon	Plant Eng.
Min-Hsiung Yang	Plant Eng.

Remember to Precertify Hospital Stays

All participants in the CIGNA PPO medical plan are reminded to obtain hospital precertification from CIGNA. This precertification is mandatory for a one-or-more-night's stay in the hospital, but not for ambulatory surgery procedures for which patients are admitted to and released from the hospital the same day. If you are retired and covered by Medicare, you *do not* have to precertify.

If an employee, retiree, or family member fails to notify CIGNA regarding precertification or emergency hospital admission, medical insurance benefits will be reduced to cover 50 percent of the amounts otherwise payable with a maximum of \$500.

Expectant mothers *must* call CIGNA before the end of their *first* trimester to precertify their maternity-hospital admission. They or a family member *must* also call within 24 hours following admission into the hospital for the delivery.

For hospital preadmission certification, call CIGNA at (800) 982-8958 before admission to the hospital or within 48 hours of an emergency admission. This phone number is on the back of the CIGNA identification card. Employees and retirees should advise their families of the precertification requirement, so, in case of an emergency, they can make the required telephone call to CIGNA.

Jazz Concert, June 5

On Tuesday, June 5, at 8 p.m. in Berkner Hall, a jazz concert will be offered which is open to the public. Tickets can be purchased at the door for \$10. This concert is being held in connection with the U.S. ATLAS Collaboration Meeting, which has physicists from all over

the world attending.

The program will have two parts: First, the BNL Gospel Choir will sing some traditional songs with an international flair. Then, pianist and composer Eli Yamin and singer Kate McGarry will team up to present an evening of modern interpretations of classic American and Brazilian songs, classic jazz and new music prepared especially for physicists. They will also be joined

Leslie Hill, Environmental Restoration (cont'd.)

because we all have homes and families here and we all have the same interests in mind."

Raised in Deer Park, Hill is no stranger to the Laboratory, and still fondly recalls a visit to BNL with his eleventh-grade physics class that he said was a "triggering event" in his life. "Until that point, I wanted to be an architect when I grew up, even though I loved physics," he said. "After touring the graphite reactor, and seeing the displays and meeting with scientists and engineers, I came away knowing that I would become a nuclear engineer instead."

Les Hill has a bachelor's degree in nuclear engineering from Rensselaer Polytechnic Institute and is working toward a master's in construction management. From 1982 to 1997, Hill served in a number of positions for the New York Power Authority, including: project manager of the Shoreham decommissioning project, leading a staff of 700 and administering a budget of \$300 million; project manager of the Indian Point Nuclear Power Plant Unit 3 steam generator replacement project, with a staff of 500 and budget of \$120 million; vice president of appraisal and compliance services; and site executive officer for Indian Point 3. From 1997 to 2001, Hill served as group vice president for Duratek of Oak Ridge, Tennessee, the nation's largest radioactive waste processing firm, overseeing more than 500 employees at three different sites.

by bassist Jennifer Vincent.

Eli Yamin celebrates the rich

living history and creative pro-

cess of American music in his

work as a composer, jazz pianist,

musical director, radio producer,

and educator. As a pia-

nist, Yamin has per-

formed throughout

North and South

America, Europe,

the Glenn Miller Or-

chestra, and his own

trio and quintet. Kate

McGarry has the kind of rhythmic compass and

daring phrasing that allows her

to function as an instrument.

Those qualities, along with a

sure intonation and a zeal for

musical risk, make her one of

the most important jazz singers

to be heard today.

and Asia with the Illi-

nois Jacquet Big Band,

— Peter Genzer

BNL Family Safety Talk

On Tuesday, May 29, noon-1 p.m., a Family Safety Presentation will be held in the Recreation Building in the apartment area. Topics will include getting help in emergencies, Lyme disease, hantavirus, and recycling—safety concerns for all at the Lab. All are welcome, and BNL guests and their families are especially urged to attend. A children's film will be shown in the next room during the talk, so parents may bring children.

COMPUTER TRAINING

The following PC training

To register for classes, submit a training request form and an ILR, or Web requisition for the appropriate amount, to Pam Mansfield, Bldg. 515. Your name will be placed on a waiting list. Classes are scheduled based on the number of requests received. For information, registration forms, and class schedules visit the ITD training page at: http://training.bnl.gov/.



The Hospitality Committee invites BNLers to join a bus trip to Manhattan on Sunday, June 3. The bus will depart from the Lollipop House at 9 a.m. and will return from Manhattan at 7 p.m. Tickets cost \$10 for adults and \$5 for children ages 2-12 and are available by contacting Monique de la Beij, 399-7656. Payments can be made on Wednesday, May 30, 10:30-11 a.m. in the Recreation Bldg.

Healthline Lecture Cooking Workshop

Marlisa Brown, president of Total Wellness, Inc., a nutritional consulting company specializing in clinical, sports nutrition, and culinary workshops, will give her 7th Summer Cooking Workshop on Tuesday, June 5, from noon to 1 p.m. in the Large Conference Room, Medical Department, Bldg. 490.

Brown will demonstrate how to prepare dishes to complement your meals. She will give recipes and explain their nutritional values. Bring lunch to the workshop — drinks will be provided. Registration forms are in your mailbox. For more information, contact Mary Wood, Ext. 5923.

Calendar

(continued)

— WEEK OF 6/4 —

Tuesday, 6/5

*Summer Cooking Workshop

noon - 1 p.m., Large Conference Room, Bldg. 490. Contact Mary Wood, Ext. 5923.

*Jazz Concert

8 p.m., Berkner Hall. See notice at left.

Thursday, 6/7

ATLAS-Sponsored Lecture

7:30 p.m., Berkner Hall. Dava Sobel, prize-winning author, talk on her book, Galileo's Daughter; also, award-winning film on ATLAS experiment.

—WEEK OF 6/11—

Monday, 6/11

BERA Golf Outing

7:30 a.m. Tee-off at Cherry Creek Golf Links. \$75 per person. Format is two man best ball. Gordon Rawn, Ext. 7095, rawn@bnl.gov.

Tuesday, 6/12

Money Talks Seminar

"Investments & Options at Retirement" More information to follow: Joyce Wund, Ext. 7516.

Thursday, 6/14

Lasik Eye Surgery Info

noon - 1 p.m., Berkner Hall Presentation by Dr. Scott Sheren. Mary Wood, Ext. 5923.

BERA Bridge Club

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

—WEEK OF 6/18—

Tuesday, 6/19

Blood Drive

9:30 a.m.-3 p.m., Brookhaven Center. Need volunteers, ages 17-75, in good health, weighing over 110 lbs. Sue Foster, Ext. 2888, or donateblood @bnl.gov.

Wednesday, 6/20

Divorced & Separated Support Group

noon-1 p.m., Berkner Hall, Room D. Mary Campbell, Ext. 4776, maryc@bnl.gov.

Brookhaven Lecture

4 p.m., Berkner Hall. Lecture by Gene-Jack Wang, topic to be announced.

—WEEK OF 9/24—

Fri. - Sun., 9/28-30

Gauley River Rafting Trip

Bus leaves 6 a.m. on Friday . \$300 includes bus from BNL, rafting, hotel, most meals, lunch on the river, and refreshments on the bus. \$100 deposit required. Contact Wally Hughes, Ext. 4180 or Bozie Sing, Ext. 5350.

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.



The swimming pool and locker rooms will reopen on Friday, June 1. Stop in and take a look or a dip — swimming is free for the month of June. On Monday, July 2, the new pool season will begin, running through September 30. Buy tickets at the pool during open hours:

Open Hours

(Pool closed on all Lab Holidays) Monday through Friday

11 a.m.—1:30 p.m. employees, visitors, facility users only

1:30 p.m.—2 p.m.

speed swimming & training 2:15 p.m.— 3:15 p.m.

children's lessons

4:30 p.m.—8:30 p.m. employees, visitors, facility users, their families & guests*

Saturday 1 p.m.—5 p.m.

1 p.m.—5 p.m. employees, visitors, facility users, their families & guests* Sunday—closed

Fee Schedule

Daily Admissions

employees, visitors, facility users, family members \$2 *quests \$3

Season Tickets

(fees not prorated)
Individual \$50
Family \$60

For information on pool or gym lockers contact the BERA Sales Office, dehler@bnl.gov, or Ext. 3347. For more information, contact Recreation Supervisor M. Kay Dellimore, dellimore@bnl.gov, Ext. 2873.

* Guest ruling

(Applies to swimming pool and other recreation facilities):

One guest per employee, visitor, or facility user is permitted without prior arrangement. The guest must be accompanied by the sponsor. Additional guests, no more than five at one time per employee, visitor, or facility user, must have arrangements made beforehand at the Recreation Office, Human Resources Division, Bldg. 185. An admission card will be issued stating the life/guest number of the sponsor, the number of guests permitted, the date of the visit, and the facility to be visited. The sponsor will be requested to show the admission card at the main gate and at the swimming-pool desk.

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.

LABORATORY RECRUITMENT - Opportunities for Laboratory employees.

DD2009. SR. ADMINISTRATIVE SECRE-TARY (A-3) - Requires an AAS in secretarial science or equivalent experience and excellent demonstrated organizational and interpersonal skills. Excellent written and oral communication skills, a comprehensive knowledge of Laboratory policies and procedures and proficiency in MS Word, PageMaker, PowerPoint, Excel, Outlook, and Access also required. Must have the ability to work independently, function effectively as a team member, and exercise initiative and good judgement in a climate of changing priorities. Ability to develop and implement systems to improve division efficiency and effectiveness also required. Will provide varied support, including travel arrangements, preparation of personnel records, records management, tracking

deliverables and corrective actions, arranging meetings/coordinating schedule, taking minutes and editing of correspondence and reports. Environmental Services Division.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside candidates.

NS8853. STAFF ENGINEER (P-5) - Requires a bachelors degree in health physics or closely related science discipline or demonstrated and approved equivalency through education, certifications and experience. A minimum of three years' experience in operational health physics and at least one year as a lead technician with responsibilities for overseeing other technicians is necessary; must be RCT qualified and be able to maintain all qualifications reguired of a RCT: NRRPT or OHST are highly desirable. Responsibilities include assisting departments/divisions in implementing their ES&H program: direct supervision of RCT's including review of HP and IH surveys; maintenance of all routine survey file systems and assigning daily tasks. Radiological Contro

NS2305. ADVANCED APPLICATIONS EN-GINEER (I-7)/ASSISTANT SCIENTIST (S-1) - Requires an advanced degree in physics or computer science; at least three years' experience in HENP software development and C++ and Object-Oriented programming. HENP database and/or data management infrastructure development experience strongly preferred; experience in core infrastructure development preferred. Will join a team participating in many areas of ATLAS software, including event model, databases and data management; physics analysis infrastructure: software unnort and management; and application software aligned with BNL's ATLAS detector and physics program. Physics Department.

TB2045. PRINCIPAL TECHNICIAN (TW-4) - Requires a BSET degree or equivalent, a thorough understanding of analog and digital circuitry, and the ability to use standard test equipment and work from schematics and verbal instructions. Responsibilities will include testing, fabricating, maintaining and repairing of high power RF Systems at the National Synchrotron Light Source. Experience in RF and high voltage techniques is desirable. National Synchrotron Light Source Department.

Children's Swimming

Applications are now being accepted for BERA's summer swimming lessons, which are open to children of all Lab employees, visitors, and facility-users. Lessons will run from Monday, July 2 to Monday, August 27.

Program - Each child will be scheduled for one lesson per week for a total of eight lessons. American Red Cross certificates will be awarded to children who qualify on completion. **Time**: Monday through Friday, 2:15-3:15 p.m. Children should arrive at

Fee: \$55 for each child upon registration, plus \$2 daily admission fee or present a season ticket.

2 p.m. for preparation.

Height: For their safety, children must be a minimum 42 inches tall.

Registration: Pick up applications at Human Resources, Bldg. 185, 8:30 a.m.-5 p.m.; the BERA Sales Office, Berkner Hall, weekdays, 9 a.m.- 3 p.m.; or the swimming pool during scheduled hours. Mail or deliver applications with registration fees (checks payable to BERA) to the Recreation Office, Bldg. 15, no later than Friday, June 15.

Water Aerobics

Water aerobics start in June. To join, contact Mary Wood, Ext. 5923 or wood2@bnl.gov.

March Into May Final Points Due

Final points for the March Into May program should be submitted by May 30. Another raffle will be held for those who turn in their points for the ten-week program. Tee shirts will also be available for all participants who completed the program, whether or not they reached their goal. For more information, call Mary Wood, Ext. 5923.

Bowling Awards Party

The bowling awards party will be held at Ladakins on Friday, June 8, from 6-10 p.m. Tickets at \$10 per bowler and \$25 per guest, which includes dinner and open bar, should be purchased by June 1 from Debbie Keating, Ext. 3888, or Scott Reynolds, 929-0499.

BERA Bus to NY Mets

Join BERA on Friday, July 13, to see the NY Mets vs. Boston Red Sox. Cost: \$40 for bus and upper level box seats, plus gift given on the bus. Buy seats at the BERA Sales Office, 9 a.m.-3 p.m.

