

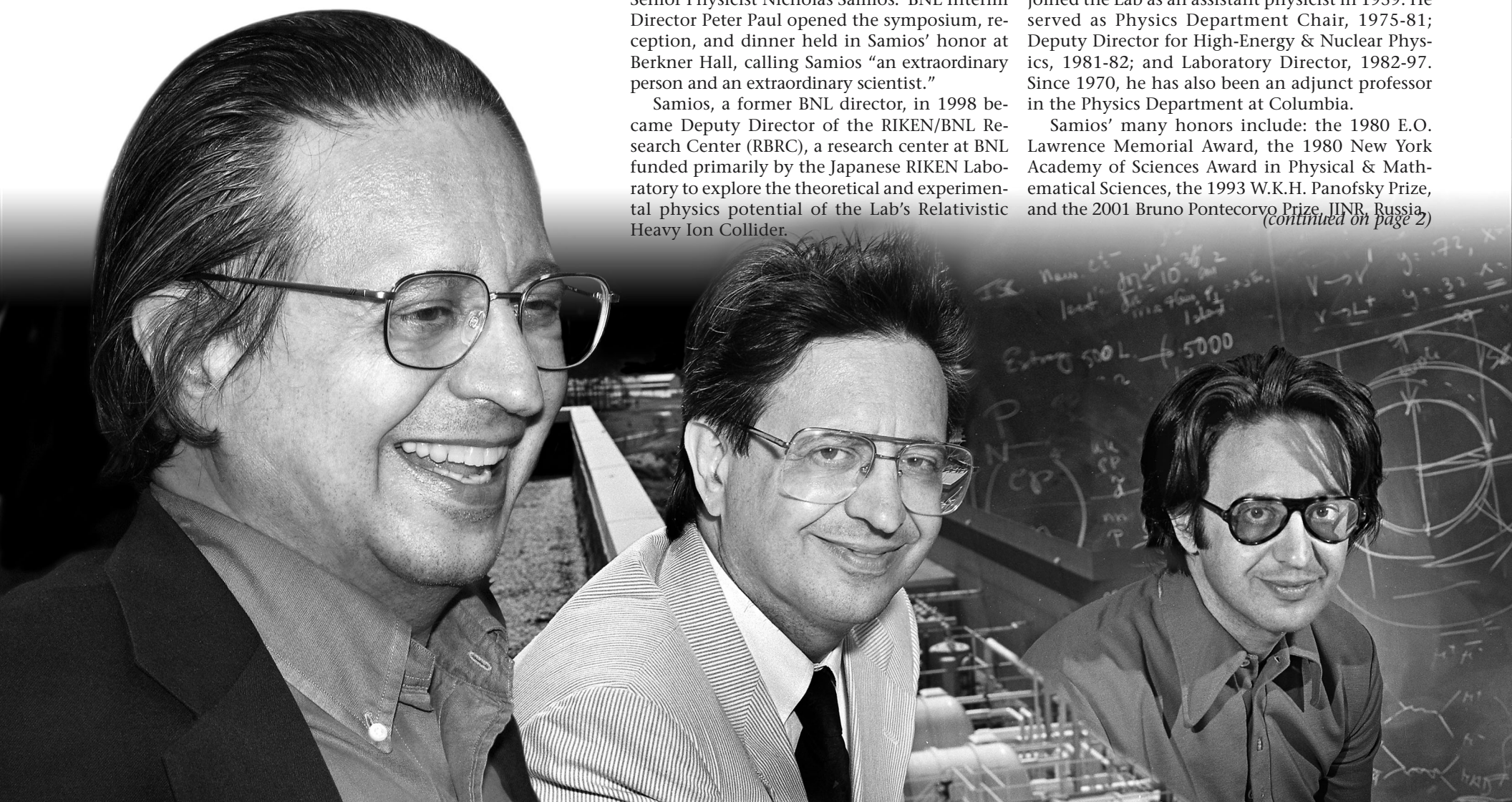
BNL Celebrates Nicholas Samios' 70th Birthday

On May 16, scientists and friends from BNL and many other institutions gathered to celebrate the 70th birthday of BNL Distinguished Senior Physicist Nicholas Samios. BNL Interim Director Peter Paul opened the symposium, reception, and dinner held in Samios' honor at Berkner Hall, calling Samios "an extraordinary person and an extraordinary scientist."

Samios, a former BNL director, in 1998 became Deputy Director of the RIKEN/BNL Research Center (RBRC), a research center at BNL funded primarily by the Japanese RIKEN Laboratory to explore the theoretical and experimental physics potential of the Lab's Relativistic Heavy Ion Collider.

Having received his 1953 B.A. and 1957 Ph.D. in physics from Columbia University, Samios first came to BNL as a summer student in 1952 and then joined the Lab as an assistant physicist in 1959. He served as Physics Department Chair, 1975-81; Deputy Director for High-Energy & Nuclear Physics, 1981-82; and Laboratory Director, 1982-97. Since 1970, he has also been an adjunct professor in the Physics Department at Columbia.

Samios' many honors include: the 1980 E.O. Lawrence Memorial Award, the 1980 New York Academy of Sciences Award in Physical & Mathematical Sciences, the 1993 W.K.H. Panofsky Prize, and the 2001 Bruno Pontecorvo Prize, JINR, Russia. (continued on page 2)



Study of Nanocatalysts, Air Pollution Advances With New Technique

BNL's James Muckerman and Hua-Gen Yu, both of the Chemistry Department, have developed computer simulations describing the atomic-level mechanisms of chemical reactions involved in the combustion of hydrocarbon fuels, and the role of nanocatalysts in speeding up these reactions.

The mechanism by which hydroxyl radicals — a major cause of smog and atmospheric pollution — react with carbon monoxide to produce carbon dioxide is poorly understood, despite being the primary mechanism for removal of carbon monoxide from the atmosphere. When the hydroxyl

radical (OH) and carbon monoxide (CO) combine, they form a transient molecule, HOCO, that later breaks into carbon dioxide and hydrogen.

Having previously simulated the reaction of OH with CO, Muckerman and Yu have now simulated how light breaks the bonds between the atoms of the HOCO molecule. They found that when light excites a specific vibrational state of the OH bond, HOCO breaks into both a hydroxyl radical and carbon monoxide, and carbon dioxide and hydrogen.

The most interesting result, Yu said, is that when light hits the OH bond, it is broken in

only one-third of the cases, and the nearby CO bond is split the rest of the time. "This result may seem counter-intuitive," he said, "but it is due to the fact that the bonds are coupled, and what affects one bond also affects its neighbors."

Muckerman explained that the new calculation methods for many-atom systems will be important in studies of how nanocatalysts, which are catalysts the size of a (cont'd, page 3)

NSF's Goldberg Views BNL's ATLAS Contribution

While visiting BNL for the May 16 symposium for Nicholas Samios' birthday celebration, Marvin Goldberg, Program Officer of Experimental Particle Physics at the Division of Physics of the National Science Foundation's (NSF) Directorate for Mathematical & Physical Sciences, viewed two of the unique electrical-signal "feedthrough" devices developed under the direction of Howard Gordon, leader of the U.S. ATLAS collaboration at BNL, and David Lissauer, leader of the BNL Physics Department's Omega Group.

Recently, 64 of these feedthroughs were installed in the electromagnetic calorimeter of the ATLAS experiment at the

Large Hadron Collider (LHC) located at CERN, the European particle physics laboratory in Geneva, Switzerland. ATLAS (A Toroidal LHC Apparatus) is one of four detectors that will analyze particles generated by proton collisions at the LHC. One of the experiment's main goals is to look for a particle dubbed the Higgs, which may be the source of mass for all matter.

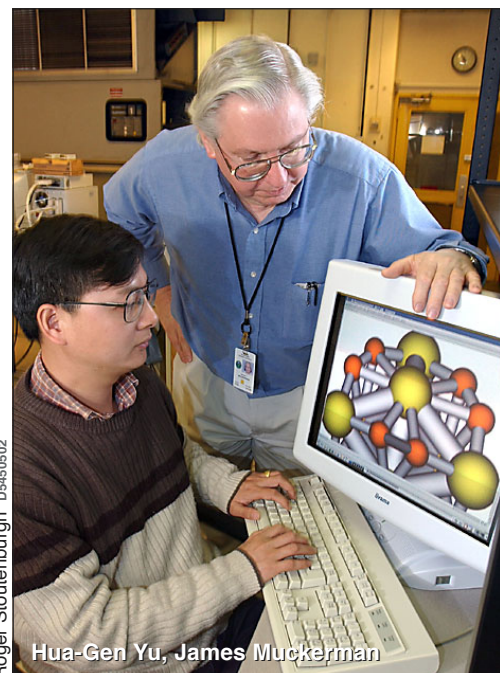
Goldberg reviewed the progress on the feedthrough project, which is supported by both the NSF and DOE's Office of High Energy Physics. Each feedthrough is a three-foot-long cylinder containing 30 cables, each with 64 electronic channels to transfer signals from environments with very different

temperatures, ranging from -300 degrees Fahrenheit, the temperature of liquid argon inside the calorimeter, to the outside ambient temperature.

The feedthroughs pictured below are two of the four complete spare units used at BNL in a mechanical mockup to test the fit and function of parts such as the pedestal, warm cables, baseplane, and electronic crate before they are sent for installation at CERN.

The feedthroughs were designed and built at BNL (see Bulletin, April 5, 2002). Altogether, BNL, plus five U.S. universities and institutions from 13 other countries are working on the calorimeter.

— Patrice Pages



All-Hands Meeting

to be held by

Interim
BNL Director
Peter Paul

Friday, June 28
11 a.m.
Berkner Hall

All are invited
to attend.

POSTPONED
More Information To Follow

Nicholas Samios' 70th



Jerry Friedman



Satoshi Ozaki, Julius Spiro, Nicholas Samios



Charles Baltay



Bob Palmer



Jack Steinberger



Jerry Hudis



Peter Paul, Dennis Kovar



Rafe Kasper



Bob Crease



Vernon Hughes



Samios, Allan Bromley



Samios, Sheldon Glashow



T.D. Lee

Samios

(cont'd.)

Elected to the National Academy of Sciences in 1982, Samios is a Fellow of the American Physical Society and the American Academy of Arts & Sciences.

The four sessions of the all-day symposium were chaired, respectively, by: Howard Gordon, BNL, who, with Jackie Mooney, BNL, had organized the day's celebration; Jerry Friedman, Massachusetts Institute of Technology (MIT); Peter Bond, BNL; and Derek Lowenstein, BNL.

Symposium topics included: "Physics From Columbia to RBRC," by T.D. Lee, Columbia and RBRC; "How Nick Helped Me Win Two Bets," by Sheldon Glashow, Boston University (see poem at right); "Elementary Particle Physics Funding and the Uncertainty Principle," by Marvin Goldberg, National Science Foundation; "Gravitational Lensing as a Probe of Cosmology," by Charles Baltay, Yale University; "Reminiscences," by Jack Steinberger, CERN, Switzerland; "Why Progress Is Only Made at 2 a.m.," by Robert Palmer, BNL; "Modern Insights From Ancient Greeks," by Frank Wilczek, MIT; and "The Birth of RHIC," by D. Allan Bromley, Yale. Jack Sandweiss, Yale, and Samios both spoke at dinner. Many attendees told affectionate, colorful anecdotes of Samios' decisive personality and outstanding contributions to BNL and science.

— Liz Seubert

Betting on Nick

by Sheldon L. Glashow

We've come from near, we've come from far,
We've come by boat and plane and car,
We've come because it's time to roast
Our friend and colleague Samios,
Who's now, they say, three score and ten:
A middle-aged Athenian.
It's true Nick once was Lab director
But that's not at all his *raison d'être*
(Except for his chums at Boston U
Condemned to chase gee minus two.)
Let's now recall Murray's crazy thought
That hyperons, so dearly caught,
Those sigmas, xi's and lambda nought
With old familiar n and p ,
Should form an eight of Sophus Lie,
And that their friends with spin three half
would make a ten — O what a laugh!
This game we said, the eightfold way
T'would be a game that all would play.
This bet we made, this bet we won;
We won because of what Nick's done:
One hundred K of pix, no less,
He took to find one s-s-s-
This tour-de-force discovery,
Omega minus with strangeness three,
Made Nick a hero, to you and me;
That's quite enough, you'd think he'd quit—
But Nick pressed on, he has real grit.
Though most had bought quark flavors three,
These lacked a certain symmetry:
Mu, nu-mu, nu-e and e
Bespoke, we thought, of one quark more,
Said quark with charm makes four plus four.
So Luciano, John and me
Found reasons sound that charm must be;
And then Sam Ting at BNL,
And some at SLAC, if truth they tell,
They found a bump, we call it J,
They dared our Nick to make my day.
So back he went, back to the farm,
To catch a glimpse of naked charm.
Poor Nick worked hard, as all could see,
'Til he found one case of lambda cee.
Fools doubted this, they found it funny,
But time would tell, he's on the money.
Each wager won depended on
Nick's sighting of a baryon:
One triply strange for SU three,
And one with charm — one just for me.
So that's the way it was back when
Both theory and experiment
Could focus on such things that be,
And search for hidden symmetry.
Those games we played in bygone days
Are played today in suzy ways
With squarks, selectrons, wimps and winos,
Not one, nor two, but three sneutrinos;
I wonder whether e'er we will
Discover these without Nick's skill.
So on this day extraordinary
Let's cherish Nick, and thank his Mary
For all those nights he wasn't home
To do the things that make this poem.



Jack Sandweiss, Samios



Frank Wilczek



Jackie Mooney, Samios, Rae Greenberg



Marvin Goldberg, Maurice Goldhaber



Thomas Kirk, Robert Jaffe



Derek Lowenstein



Peter Bond



Mary Samios, Howard Gordon



Adrian Melissinos



Ray Davis



Mike Tannenbaum



Dick Setlow



Nicholas, Gregory, Alexandra, & Peter Samios



Nora Volkow, Joanna Fowler



Gregory Samios, Mary Samios, Nicholas Samios, Alexandra Samios



Numbered photos on this page are by Roger Stoutenburgh

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.

HOLIDAY CLOSINGS

The Lab will be closed on Thursday and Friday, July 4 and 5, in honor of Independence Day. No Bulletin will appear on 7/5. Meals: the Brookhaven Center will be closed 7/4-6, open 7/7, from 5 to 9 p.m.; Cafeteria: the deli and grill will be open 7/4-7, daily from 7:30 a.m. to 2 p.m. The Research Library will be closed 7/4-7. The swimming pool and gym will be closed 7/4-7. The Teachers Federal Credit Union will be closed 7/4, open 7/5. The U.S. Post Office, Upton Branch, will be closed 7/4, open 7/5 from 8 to 11 a.m.

June is Gay Pride Month

A display commemorating gay pride is set up in Berkner Hall lobby. For more information, see www.bnl.gov/bera/activities/globe.

— THIS WEEKEND —

Saturday, 6/29

Hospitality Barbecue

5:30 p.m. at the gazebo in the apartment area. All are welcome. Bring a salad or side dish for six people to share. Meat and beverages will be provided. There will be games for children. Monique de la Beij, 399-7656.

— WEEK OF 7/1 —

Wednesday, 7/3

Spirit Dinner Cruise

\$89 per person. Celebrate Independence Day by sailing around Manhattan. Transportation, buffet dinner, live music, entertainment. Open to those over 12 years of age. A few tickets available at the BERA Sales Office.

— WEEK OF 7/8 —

Monday, 7/8

Safety Awareness Day

10 a.m., Berkner Hall. Billy Robbins talk on "Hooked on Safety." 3 p.m., Berkner Hall, Paul Kende gives safety talk. All are welcome.

Tuesday, 7/9

Money Talks Seminar: 'Take Charge of Your Retirement Savings'

Noon, Berkner Hall. To help attendees understand retirement plan options, a representative from TIAA-CREF will present "Take Charge of Your Retirement Savings," focussing on the steps for planning a financially secure retirement. Check your mailbox for registration forms. Joyce Wund, Ext. 7516.

Thursday, 7/11

Cycletrons Motorcycle Club Meeting

4:45 p.m., Brookhaven Center. Frank Dusek, Ext. 2022, frankd@bnl.gov.

BERA Bridge Club

7 p.m., Brookhaven Center. South Room. Morris Strongson, Ext. 4192, mms@bnl.gov.

Friday, 7/12

BNL Science Museum Open at Lunch

11 a.m.-2 p.m. During July and August, starting 7/12, the BNL Science Museum, Bldg. 935, will be open to the Lab community, 11 a.m.-2 p.m. on Fridays. Children under 14 must be with an adult.

GLOBE Meeting

The Gay, Lesbian, and Bisexual Employee Club at BNL will hold its monthly meeting at 7 p.m. 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.

— WEEK OF 7/15 —

Wednesday, 7/17

*Cycletrons Motorcycle Club Picnic

Noon. Join the BNL Cycletrons Motorcycle Club at the gazebo by the softball fields for a picnic on national "Ride to Work Day." Frank Dusek, Ext. 2022, frankd@bnl.gov.

Safety Awareness Day, July 8

Two One-Hour Presentations, One-Hour Department/Division Meetings Scheduled

On Monday, July 8, BNL will hold a Safety Awareness day, when a major topic of discussion will be workers' compensation. Under the Workers' Compensation Laws of New York State, employees may be awarded compensation payments for medical treatment and lost workdays for injuries or illnesses that are ruled compensable. BNL maintains workers' compensation coverage and cooperates with the New York State Workers' Compensation Board to ensure that employees entitled to benefits receive them.

The primary mission of the Laboratory's workers' compensation program is to ensure that compensation and medical expenses are provided for employees who incur losses that are a result of injuries or illnesses related to employment at BNL. Also, the program assists management in developing and implementing policies that will reduce the financial burden of workers' compensation. — Jane Koropsak

The following key questions were posed to Otto White, BNL's Safety and Health Services Division Manager:

Q How do BNL injury/illness costs compare with other DOE Laboratories?

ANBNL worker compensation costs are higher than most other DOE sites. DOE compares BNL's occupational injury/illness statistics with the other 26 DOE-owned Laboratories. BNL rates as one of the four worst performers with regard to work-related injuries. BNL worker compensation costs are also higher due in part to the frequency and severity of injuries and to the liberal payment schedules under New York State compensation laws.

Q How are the statistics from each Laboratory compared? (i.e., are "apples compared to apples?")

ASTatistics among the 27 DOE sites are compared using the three Occupational Safety and Health Act (OSHA) occupational injury/illness statistics: (1) recordable cases (injuries or illnesses meeting severity threshold as defined in 29 CFR 1904), (2) lost workday cases (injuries/illnesses resulting in lost time beyond the day of the event), and (3) lost workdays (days lost per injury/illness). These raw statistics are used to calculate injury rates using an OSHA formula that levels the playing field for large, medium, and small operations. This normalized rate allows for comparison of sites regardless of size and number of employees.

Q Are injuries from BERA activities included in BNL's occupational injury statistics?

ANo. Athletic injuries that occur while an employee is participating in a BERA program are normally worker's compensable, but they are not included in the occupational injury/illness statistics. So, while BERA injuries are not included in the statistics, the associated costs of BERA injuries are included in BNL's overall compensation costs.

Q What is the total dollar cost to BNL for worker's compensation claims?

AThere are two cost components to any worker's compensation claim: direct and indirect costs. Direct costs are the expenses associated with medical treatment and paid sick time. Indirect costs may include investigation of an injury, temporary replacement of personnel and other peripheral costs. Indirect costs are typically five to ten times the amount of direct costs. It is estimated that BNL's direct worker's compensation costs will be between \$2-3 million this year, making indirect costs in excess of \$10 million. Monies spent for workers' compensation are resources diverted from BNL's principal mission of research.

Q What can employees do to reduce BNL's worker's compensation costs and reduce the number of lost workdays?

AWork safely! In addition, employees should keep their eyes and ears open for better, safer ways of performing their job duties and should encourage their co-workers to work safely. Each employee has the right and obligation to stop any work immediately that appears to be an imminent hazard situation. Safety works for everyone!

How Does BNL Rank Among the 27 DOE Labs?

Year	1999	2000	2001
Recordable Cases	12	15	17
Lost Workday Cases	22	24	24
Lost Workday and Restricted Duty Days	23	21	24
Cost Index	25	24	24

Numbers in table give BNL's placement in terms of various safety performance measures. For example: in 2001, Brookhaven ranked 24th out of the 27 DOE Labs for lost workday cases — only three Labs had a higher lost workday case rate.

Source: <http://tis.eh.doe.gov/cairs/cairs/summary/main.html>

On-Site Security Exercises Under Way

Over the next several weeks, the Safeguards & Security Division will be conducting another round of on-site training exercises, both during and after normal working hours. The Police Group's tactical response teams will be actively training around the clock, and some of the exercises will include participation by local law-enforcement agencies. Employees should expect to see an increased number of BNL police, various other uniformed officers, and marked vehicles on site at any given time as the exercises commence.

Arrivals & Departures

Arrivals

Pamela Bartlett Rad. Ctrl.
Stephen Giordano NSLS
Kim Hayes Rad. Ctrl.
Sharon Hoey Rad. Ctrl.
Clayton Hughes Rad. Ctrl.
James Langhorne Rad. Ctrl.
Jeffrey Sells Rad. Ctrl.
Kurt Vetter C-A

Departures

Andrei Shishlo C-A

Money Talks , 7/9

Plan Retirement Savings

See calendar above, left.

Health Promotion Humor Seminar, 7/16

Join Rick Shields of CIGNA Behavior Health at noon on Tuesday, July 16, at the Brookhaven Center South Dining Room as he presents "Your Sense of Humor."

Shields will focus on the psychological and physical benefits of humor. A brown bag lunch will be provided for attendees. Registration is necessary by Tuesday, July 9. Contact Linda Rundlett, Bldg. 185.

Safety Quiz

Answer these Safety Quiz questions to see how much you know about safety.

1. If you witness an accident on site with injuries, whom should you call first?
 - a. your supervisor
 - b. Ext. 2222
 - c. your ES&H coordinator
 - d. a lawyer
2. The best way to lift heavy objects is:
 - a. after pulling object toward your body you should straighten your back, then lift with your legs
 - b. use primary back muscles to lift the weight
 - c. make use of a mechanical device to assist in the lift
 - d. does not matter: back injuries are covered under workers' compensation
3. Identify why safety practices and procedures are needed:
 - a. lower insurance premiums
 - b. prevent physical harm to yourself and others
 - c. lower cost to employer
 - d. prevent possible loss of job
 - e. all of the above
4. What does a triangular traffic sign tell a driver on site?
 - a. slow down for hospital zone
 - b. yield to other traffic flow
 - c. observe recommended speed limit
 - d. ignore the sign unless you see Safeguards & Security watching you

Answers: 1. b; 2. c; 3. e; 4. b.

Go to <http://training.bnl.gov/course/safetyquiz/WebExport/safetyquiz/index.html> for more questions. Enter the Safety Quiz contest and win a prize!

Retirement Planning

The Vanguard Group invites you to spend 30 minutes one-on-one with a licensed Vanguard representative at the Lab to talk about financial issues. Meet with a representative between 9 a.m. and 5 p.m. on Wednesday, July 24.

You may learn about: investing for long-term goals such as retirement; selecting funds for your savings; and making the most of the services and investment tools available.

To schedule your 30-minute session, call Vanguard, 1-800-662-0106, Ext. 69000.

Summer Pool Season Begins Monday, July 1

The summer pool season will begin on Monday, July 1 and runs through Monday, September 30. For new operating hours and fee schedules, go to www.bnl.gov/bera/recreation/services.htm#FACILITIES.

Defensive Driving

A defensive driving course will be offered on Saturday, August 10, at \$26 per person. See Calendar of Events, above, right.

Nanocatalysts (cont'd.)

billionth of a meter — speed up chemical reactions. "Nobody really understands how nanocatalysts work," Muckerman commented. "So we are now using our simulations to investigate the role of these catalysts at the atomic level."

— Patrice Pages & Peter Genzer

Calendar (continued)

Tuesday, 7/16

*Health Promotion Seminar

Noon, Brookhaven Center South Dining Room. "Your Sense of Humor" will be presented by Rick Shields of CIGNA Behavior Health. Shields will focus on the psychological and physical benefits of humor. A brown bag lunch will be provided for attendees. Register by Tuesday, July 9, by contacting Linda Rundlett, Bldg. 185.

Wednesday, 7/17

375th BNL Lecture

4 p.m., Berkner Hall. Mark Miller, BNL Environmental Sciences Department, will talk on clouds and climate. More information to follow.

Saturday, 7/20

*Manhattan Bus Trip

Adults \$10, Children 2-12 years old \$5. Bus departs from the Lollipop house at 9 a.m. and leaves the city at 6 p.m. Tickets can be purchased at the Rec. Bldg. on Tuesday, July 16, and Wednesday, July 17, from 11 a.m. to 1 p.m. For more information, contact Lisa Fugleberg, 206-5128, or Joe O'Connor, Ext. 2212.

*Six Flags Great Adventure Trip

\$45 per person includes transportation, admission and safari, breakfast. Bus leaves Brookhaven Center 7 a.m. sharp. Bring cash only to reserve on or before Monday, July 8, to Nina Nami, Ext. 4237, Sci. Ed. Center, Bldg. 438.

— WEEK OF 7/22 —

Monday, 7/22

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.

Thursday, 7/25

BERA Bridge Club

7 p.m., Brookhaven Center. South Room. Morris Strongson, Ext. 4192, mms@bnl.gov.

— WEEK OF 7/29 —

Saturday, 8/3

BERA Fishing Trip

\$49 per person. The Captain Bob leaves the dock in Mattituck at 8 a.m. and returns at 3 p.m. BERA Sales Office. Andrea Dehler, Ext. 3347, or Sue Cataldo, Ext. 4461.

— WEEK OF 8/5 —

Thursday, 8/8

BERA Bridge Club

7 p.m., Brookhaven Center. South Room. Morris Strongson, Ext. 4192, mms@bnl.gov.

Saturday, 8/10

*Defensive Driving Course

9 a.m.-3:30 p.m., Berkner Hall, Room B. To register, send a check for \$26 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 in case you need to be contacted. All checks must be received by August 2.

— WEEK OF 8/19 —

Thursday, 8/22

BERA Bridge Club

7 p.m., Brookhaven Center. South Room. Morris Strongson, Ext. 4192, mms@bnl.gov.

Saturday, 8/24

Bronx Zoo Trip

\$32 per adult, \$28 per child. Includes bus transportation and Zooventure tickets. (Zooventure includes general admission, zoo shuttle, Bengal Express, one-way Skyfari Cable Car ride, and the Children's Zoo.) BERA Sales Office, Ext. 3347.

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/HR/jobs/default.htm.

LABORATORY RECRUITMENT - Opportunities for Laboratory employees.

NS3085. PLANNER/ESTIMATOR (Architectural/T-5) - Requires a minimum of five years' carpentry experience, considerable construction experience, and proven ability equivalent to that of a Craft Supervisor. With a minimum of supervision, performs work requirement analysis, job layout and equipment selection, and applies performance measurement standards to produce operating estimates for all types of plant maintenance and repair. Works in close cooperation with supervisors and general supervisors in technical planning and job layout. Uses professional judgment in deter-

mining performance standards appropriate to each individual job and its circumstances. Plant Engineering Division.

TB2466. OFFICE SERVICES ASSISTANT (CW-2, Term Appointment) - Requires excellent communication skills and people skills with proficiency in MS Word, Outlook and WWW desirable. Candidate should have: ability to develop filing system and maintain records to Laboratory requirements; ability to enter data into and maintain databases (BTMS, INFORM, etc.); familiarity with spreadsheets (Excel 2000); ability to enter and maintain Physics Department documents on the Internet. Duties will include maintaining an electronic calendar (Outlook), greeting and assisting walk-ins with safety training information, assisting with conference and colloquia speakers (conference room bookings, car rentals, housing, maintaining local and lab calendars. Physics Department.

OPEN RECRUITMENT - Opportunities for Laboratory employees and outside candidates. MK3043. ASSISTANT PHYSICIST - Requires a Ph.D. in nuclear, high energy or theoretical physics or a commensurate degree in computer science or engineering, with extensive experience in high-performance computing, numerical algorithms, and the creation and maintenance of large software systems. Experience in large-scale computer simulations of lattice gauge theories and expertise in highly efficient programming in C, C++ and assembly languages highly desirable. As part of the Nuclear Theory Group will work in lattice gauge theory in conjunction with the SciDAC (Scientific Discovery through Advanced Computing) program of the Department of Energy. Position will involve a combination of direct research in lattice gauge theory using large scale numerical simulation, the development and testing of new algorithms and software support for the community of users of the present and planned Teraflops-scale parallel computers at Columbia University and Brookhaven National Laboratory. Interested candidates should send a CV, list of publications and arrange to have three letters of recommendation sent as soon as possible to Dr. Larry McLerran, Group Leader, Physics Department, Bldg. 510A, Brookhaven National Laboratory, Upton, New York 11973-5000.

Summer Sunday Tours Begin July 14

This summer, BNL's Sunday tours will feature exciting interactive exhibits and an inside look at a different Laboratory facility each Sunday, including the Relativistic Heavy Ion Collider. Also, BNL's Magnet Division will be open to the public for the first time this year, which will allow visitors to see how high-tech magnets are made for accelerators around the world.

The Lab will be open for tours on seven consecutive Sundays, from July 14 to August 25. Tour hours are between 10 a.m. and 3 p.m. Admission is free and no reservations are needed, but to be admitted on site, all

visitors age 15 and over must bring a photo ID.

A new hands-on exhibit called "Brain Teasers," a collection of 20 puzzles ranging from giant jigsaws to rope tricks, will challenge both children and adults. Also, local high school students will demonstrate the robots they built.

The "Whiz Bang Science Show" — popular with both adults and children — will be shown at 10:30 a.m., noon, 1:30 p.m., and 3 p.m. every Sunday during the summer program. Both children and adults will enjoy lively interactive demonstrations of basic scientific principles. How does a "Bernoulli blower" float a beach ball in the air? What is a corrugaphone and how does sound travel through it? These are just a few of the intriguing questions to be answered in the show.

— Diane Greenberg
Facilities will be open as follows: July 14, Life Sciences; July 21, Magnet Division; July 28, Relativistic Heavy Ion Collider (RHIC); August 4, BNL Fire House; August 11, National Synchrotron Light Source; August 18, Energy & Environment; and August 25, RHIC.

For more information about Brookhaven's free Sunday tours, call (631) 344-2651.

Great Adventure, 7/20

Take a ride to Six Flags Great Adventure on Saturday, July 20. The bus will leave at 7 a.m. sharp from the Brookhaven Center. The cost of \$45 per person includes transportation, admission to park and safari, and breakfast. Seating is limited: first come, first served. To reserve a place, bring cash only on or before Monday, July 8, to Nina Nami, Ext. 4237, Science Education Center, Bldg. 438.

Fire Hydrant Flushing Week of July 8th

To improve the quality of BNL water delivered to the consumer's tap by eliminating "rusty" water, the Lab's fire hydrants will be flushed Monday to Friday, July 8-12, as follows:

- Mon. 7/8: Rutherford and Lawrence Drives
- Tue. 7/9: Upton Road and through the apartment area
- Wed. 7/10: Cornell Avenue and its cross streets
- Thu. 7/11: Brookhaven Avenue
- Fri. 7/12: Bell Avenue

Before drinking or using water during and after hydrant flushing, run the water in the sink, fountain, or shower to flush discolored water from the tap. In some places, you may have to run the water for 5 to 10 minutes until the water runs clear. For more information, call Marsha Belford, Ext. 5053, or Bill Chaloupka, voice pager 0552.

Free Roll of Film or Free Second Set of Prints At BERA Sales Office



During July and August, the BERA Sales Office will offer a free roll of film (ISO100, 24 exp. Fuji film,) or a free second set of prints when you have a single set of prints developed.

Hospitality Events

BBQ, 6/29

The Hospitality Committee invites the Lab community to a BBQ on Saturday, June 29, at 5:30 p.m. at the gazebo in the apartment area. See details in Calendar, page 3. Hospitality Chair Monique de la Beij, 399-7656.

Manhattan Bus Trip, 7/20

Join a bus trip to Manhattan on Saturday, July 20. See details in the Calendar, page 3. Contact Lisa Fugleberg, 206-5128, or Joe O'Connor, Ext. 2212.

Ride to Work Day, 7/18

National 'Ride to Work Day' is Wednesday, July 17. Bring your motorcycle and join BNL's club, the Cycletrons, from noon to 1 p.m. at the gazebo by the softball fields. For more information, contact Frank Dusek, Ext. 2022.

C-A Picnic Undamped by Rain



Michael Herbert 06470602

The picnic chefs are: (from left) Rich Savage, Bob Marascia, Jim Meier, Bill McGahern, John Nicolellis, Ray Lo Presti, Frank Dusek, and Rich Conte. Not in the picture is I-Huang Chiang.

The Collider-Accelerator (C-A) Department's BBQ held at the gazebo near the ballpark on Friday, June 14, was a great success despite the monsoon-like rain. Most of the 394 ticket holders attended under large umbrellas and had a wonderful time.

To make the picnic happen from the idea of Bob Marascia and approved by C-A Chair Derek Lowenstein, Penny Lo Presti formed a hard-working committee: Marascia, Ripp Bowman, Mary Campbell, Rich Conte, Lynann DiFilippo, Frank Dusek, Marion Heimerle, Mike Jacobellis, Cindy Long, Jim Meier, John Nicolellis, Anna Petway, Rich Savage, and Laura Taddonio. John Hauser was master of ceremonies and raffle announcer, Ken Sutter roasted a 150-pound pig. I-Huang Chiang prepared and cooked 60 pounds of salmon. Still more chefs (see photo) took care of other essentials such as hot dogs, hamburgers, salads, and desserts. Visual memories were assured by Larry Arnold's video and Bowman's photographs, while the Muddy River Blues Band (see below) took care of musical entertainment. The committee thanks the Plant Engineering Division for valuable assistance in the event.

'Summer Bash' Concert at BNL Features Blues & Rock, 7/13

Music by Sam "Bluzman" Taylor, George Bostick, Hadicus Road, the Muddy River Band



Michael Herbert 06490602

Among the groups at BNL's July 13 Summer Bash Concert will be the Muddy River Band (above), which also played at the Collider-Accelerator Department BBQ on June 14. Other than drummer Mike DiGeromimo, the group is all from BNL: (from left) Sean Stoll, Joe Rubino, John Ostaszewski, Joe Vignola, and Joe Carbonaro.

BNL will hold a "Summer Bash" outdoor concert, featuring local blues and rock groups, on Saturday, July 13, from noon to 6 p.m., on the lawn adjacent to Berkner Hall. To be held rain or shine, the free concert is open to the public. All visitors age 15 and over must bring a photo ID to be admitted on the Laboratory site. All concertgoers are advised to bring their own blankets or chairs.

Appearing live on stage at the concert will be Sam "Bluzman" Taylor, Blues Hall of Fame inductee; and three bands featuring musicians who work at BNL: George Bostick, Safeguards & Security Division, who plays Chicago blues guitar; Hadicus Road, a classic rock band, which



A star performer on July 13 will be Sam "Bluzman" Taylor.

includes guitarist Gregory Condemi, Radiological Control Division (RCD); and the Muddy River Band, an acoustic rock band, which includes BNL's Joseph Carbonaro, Nonproliferation & National Security Department; John Ostaszewski,

Magnet Division; Joseph Rubino, Information Services Division; Sean Stoll, Physics Department; and Joseph Vignola, RCD.

The BNL cafeteria will be open from noon to 2:30 p.m. Also, the Whiz Bang Science Show, which features lively interactive demonstrations of basic scientific principles will be presented during the afternoon. For more details, contact the BNL Music Club, Ext. 3846 or jjv@bnl.gov. — Diane Greenberg