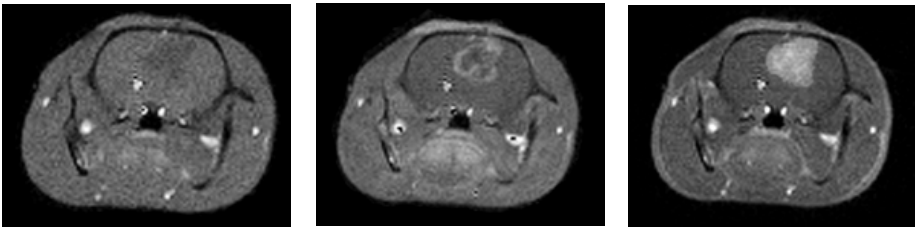




Roger Stoutenburgh C0010800

**Members of the MRI research team:** (from left) William Rooney, Chemistry Department; Frank Telang, Medical Department; Peggy Micca, Medical; and Charles Landis, USB Chemistry; Charles Springer, Chemistry; and Jeff Coderre, Medical. Not present: Xin Li, Chemistry; and Patricia Molina, Medical.



**Three magnetic resonance images:** Shown is a 2-millimeter (mm) cross-section of the brain of a laboratory rat with a gliosarcoma tumor (oval-shaped area at top center of each image). The spatial resolution of these images is 0.3 mm x 0.3 mm. In the left-hand image, no contrast agent is present so the tumor is barely visible as a slightly darkened area. The much brighter image on the right was obtained eight-and-a-quarter minutes after contrast agent was injected. This image is similar to those commonly obtained in clinical MRI. The image in the middle, obtained one-and-a-half minutes after the injection, shows that the contrast agent first enters the tumor only in its outer rim.

## RHIC Surpasses Expectations

Less than three months after the first gold-gold collisions at BNL's Relativistic Heavy Ion Collider, "RHIC's two superconducting rings are routinely colliding stored beams of gold ions with the full complement of 55 ion bunches in each ring, beam lifetimes of over four hours, and some storage cycles lasting ten hours and more," says Tom Ludlam, Deputy Associate Laboratory Director for High Energy and Nuclear Physics.

RHIC's historic first collisions took place on June 12 with only six bunches of ions in each accelerator ring colliding at an energy of 27 billion electron volts (GeV) per nucleon. Immediately after, the machine staff shifted focus to ramping up the energy and achieving sustained collider operation. The first 66 GeV per nucleon collisions took place on June 25, and, since July 28, the machine has been accelerating 55 bunches.

Accelerating ions to nearly the speed of light while ensuring that they are in the proper position within the beam pipe is no easy task. "We have learned that in order to minimize the loss when ramping up the beam, we have to maintain careful control of the beam frequencies, the beam orbit, and many other beam characteristics," says Fulvia Pilat, an accelerator physicist in BNL's Collider-Accelerator Department.

"RHIC has become much more reliable since its first days," remarks Pilat. "Now, every time we run the machine, we find the same situations. The reproducibility of the machine has improved dramatically during the past few weeks." Now the ions can be ramped up to collision energy, while preserving 85 to 90 percent of the beam intensity.

The goal for machine operation over the summer was to deliver beam capable of producing collision rates at all four detectors approaching 10 percent of the final design luminosity. So far RHIC has met and surpassed these expectations.

Speaking for PHOBOS, Project Manager Mark Baker of BNL's Chemistry Department says, "By the end of the run on September 5, PHOBOS is estimating a total of between 25 and 35 million collisions."

All four experiments have been simultaneously recording events throughout these runs, transferring data to the dedicated RHIC Computing Facility at peak rates of over 40 megabytes per second. (continued on page 2)



Roger Stoutenburgh C06-316-00

**Thomas Roser and Fulvia Pilat, both of the Collider-Accelerator Department, in the main control room for RHIC.**

## BNL/USB Team Advances MRI Technology Research Will Help Identify Tumors

A team of scientists from BNL and the State University of New York at Stony Brook (USB) has made significant advances in magnetic resonance imaging (MRI) science. The team gained valuable insights into the specific properties of MRI contrast agents.

Led by Charles Springer, BNL Chemistry Department, and Charles Landis, USB Chemistry, team members include Xin Li and William Rooney of BNL Chemistry, and Frank Telang, Jeffrey Coderre, Patricia Molina, and Peggy Micca of BNL's Medical Department.

The results of this research, which will appear in the journal *Magnetic Resonance in Medicine (MRM)*, will not only improve physicians' chances of identifying tumors and lesions

*Current evaluations of contrast agent concentrations in body tissue may be producing inaccurate results.*

within the body, but will also aid in identifying and classifying different tumor types based on how the tumor interacts with the contrast agent.

MRI tests are typically prescribed to identify tissue abnormalities that are invisible to x-rays. Contrast agents, which are often injected into patients before undergoing MRI, allow physi-

cians to differentiate more easily between different body tissue types in magnetic resonance (MR) images.

This is because contrast agents penetrate different tissue types at different rates. Therefore, accurate measurements of how much of the contrast agent is concentrated in different tissue areas allows different types of

*The new BNL/USB method of calibrating contrast agent concentration will give more accurate readings.*

tumors and other lesions to be classified, based on contrast agent properties found within that tissue.

Through their research conducted at BNL's High-Field MRI Laboratory, part of the Brookhaven Center for Imaging & Neuroscience, the team found that the way scientists currently evaluate contrast agent concentrations in body tissue may be producing inaccurate results.

"These inaccurate results are due to a calibration error," says Springer. Recently, these BNL and USB scientists developed a new method of calibrating contrast agent concentration measurements, which will give more accurate concentration readings.

MRI technology uses the response of the body's own water protons to an (continued on page 2)

## Management Changes

To streamline BNL's management structure, Laboratory Director John Marburger has announced several management changes, which will take effect on October 1. According to Marburger, "These changes will be accomplished without increasing overhead burdens at the Laboratory."

With the return of Kenneth Brog, Assistant Laboratory Director for Environment, Safety and Health & Quality (ESH&Q) to Battelle, the divisions in this directorate, with one exception — the Emergency Services Division — will report to Thomas Sheridan, Deputy Laboratory Director for Operations.

Thus Sheridan will assume line responsibility for: the Environmental Services Division, the Occupational Medicine Clinic, the Radiological Control Division, the Safety & Health Services Division, and the ESH&Q Program Offices.

Two ESH&Q Deputy positions will be posted. One, the Deputy for ES&H Support Operations, will have line responsibility for the Radiological Control, Safety & Health Services Division, and Environmental Services Divisions.

The other, the Deputy for ES&H Support Offices, will head the Offices of Standards Based Management Systems (SBMS), Training & Qualifications, Quality Management, Safety Management (continued on page 2)





## Ambassadors for the Laboratory

Gathered at a luncheon party held to thank them for their valuable contributions are many of BNL's speakers and envoys.

*The Envoy Program and Speakers' Bureau are two community-involvement programs that use face-to-face interaction and communication to share BNL's research and operations with the community. Says Kathy Geiger, Manager of BNL's Community Involvement Office, "The advantage of both of these programs is that they allow the surrounding community to associate human faces with the Laboratory and its work." Geiger warmly thanks all the volunteer speakers and envoys who have given so much of their time and effort to help BNL's research and operations become better known.*

### Speakers' Bureau

Throughout the year, BNL's Speakers' Bureau provides Lab speakers to many professional societies, public interest groups, educational institutions, libraries, and civic organizations. Speakers discuss a broad range of BNL topics, such as addiction research, meteorology, the Relativistic Heavy Ion Collider and other BNL "big machines," science writing, career paths, and media relations.

In addition to providing a point of contact for outside organizations, the Bureau staff can often match speakers with invitations coming from locations near their homes. Therefore, when departments are solicited for speakers to go off site, those requests should be forwarded to the Speakers' Bureau, Ext. 4909. The Bureau also provides speakers with coaching and appropriate materials, such as audiovisual materials, brochures, introductory biographies, and press releases.

Requests for off-site speakers are increasing, so more BNL employees are encouraged to volunteer. Anyone interested will be given a presentation-skills training class, which even accomplished speakers find helpful.

For more information on the BNL Speakers' Bureau, to join, or to arrange for a speaker, contact Jane Koropsak, Ext. 4909, or [jane@bnl.gov](mailto:jane@bnl.gov).

**Speakers' Bureau participants from the past year include:** Barbara Blenn, Michael Butler, Diane Cabelli, Victor Casella, William Christie, Michael Clancy Jr., Jen Clodius, Stephen Dewey, Yu-Shin Ding, Donna Dowling, Angelika Drees, Marty Failler, Paul Freimuth, Matthias Groose-Perdekamp, Timothy Hallman, Louise Hanson, James Higgins, Christine Lafon, John Larese, Bruce Lein, Larry Leipuner, Beth Lin, Thomas Ludlam, Donald Lynch, Jerry Magee, Frank Marotta, William McGahern, Karen McNulty, William Medeiros, Daniel Oldham, Laurie Pearl, Susan Pepper, Fulvia Pilat, Diane Polowczyk, Richard Przybylinski, Vincent Racaniello, Todd Satogata, John Searing, Richard Setlow, Peter Soo, Mariolo Sullivan, Karl Swyler, Kathleen Turner, Lance Warren, and Ken White.

### Envoy Program

Brookhaven's Envoy program is comprised of BNL employees who belong to other organizations outside the Lab. Through the program, BNL employees create new gateways to community organizations.

The Envoy program serves many useful roles. It provides a vehicle for promoting BNL's research highlights to the community in a direct, face-to-face manner. Members of community groups are able to use the program as a mechanism for delivering feedback to the Lab. Community interests, issues, and concerns are brought to the attention of the group's envoy. Then, in addressing these requests for information or explanations, BNL envoys further their own knowledge of the Lab, becoming a more valuable resource for the community.

Participants are also encouraged to learn what goes on outside their own area within the Lab, so envoys often form interesting contacts with others at BNL and can present a wider variety of information to the public.

Three years ago, 20 BNL employees served as a liaison between the Lab and outside organizations. Today the Envoy Program consists of more than 50 people.

For more information about BNL's Envoy Program, contact Barbara Blenn at Ext. 4458, or [blenn@bnl.gov](mailto:blenn@bnl.gov).

**Envoy Program participants from the past year include:** Garry Barnett, Ken Batchelor, Marsha Belford, Barbara Blenn, Bill Brown, David Comstock, Susan Dyroff, Don Elliott, Marty Fallier, Cora Feliciano, Nathaniel Foster, Mike Furey, Bill Gunther, Kathy Gurski, Louise Hanson, Kathy Hauser, Pat Hein, Bob Howe, Ken Johnson, Jane Koropsak, Sydel Lamb, Les Lawrence, Roy Lebel, Bruce Lein, Mike Losquadro, Yousef Makdisi, Ed McFadden, Robert McNair, Tom Muller, Rosa Palmore, David Passarello, Chris Porretto, Doug Ports, Ed Richards, Neil Schaknowski, John Searing, Bruce Style, Michiko Tanaka, Lisa Toler, Larry Toler, Mark Toscano, Arlean Vanslyke, Jim Vaz, Lisa Willi, Pat Williams, Jeff Williams, and John Russell.

## Management

(cont'd)

Systems Integration, and Integrated Assessment/Performance-Based Management. The Occupational Medicine Clinic and Independent Oversight Office will report directly to Sheridan.

The Emergency Services Division will move to the Facilities & Operations Directorate, reporting to Michael Bebon, Assistant Laboratory Director for Facilities & Operations.

Line responsibility for operating the Brookhaven Medical Research Reactor will remain with Deputy Director for Operations Sheridan, while the Environmental Restoration Program under Michael Schlender will assume responsibility for the High Flux Beam Reactor and the project preparing it for decommissioning and decontamination.

Other changes include re-establishing the Quality Management Office and creating a senior project manager position for all BNL's environmental restoration work. Recruitment of a Quality Management Office Manager is ongoing, and will soon commence for a senior level Environmental Restoration Projects Project Manager.

## RHIC

(cont'd)

To date, a paper by the PHOBOS collaboration has been accepted for publication, and the STAR collaboration has submitted one as well.

More results are in the pipeline from each of the four experiments, and will likely be presented at the American Physical Society Division of Nuclear Physics meeting in Williamsburg, Virginia, October 4-7.

Then, in January, physicists from around the world will gather to take a comprehensive look at the results from RHIC's first collision run at the Quark Matter 2001 meeting. This event is being jointly hosted by BNL and the State University of New York at Stony Brook, January 15-20.

To complete the commissioning of the collider systems, RHIC is scheduled to continue running through mid-September. Sometime after Labor Day, RHIC will start an exploratory run with polarized protons. The next gold-gold run, at the full design energy of 100 GeV per nucleon, will begin early in 2001.

— John Galvin and Karen McNulty

## Self-Evaluation Data Due by Early October

As part of the contract between BSA and DOE, BNL submits an Annual Self Assessment Report each year. This report evaluates the Laboratory's performance against The Critical Outcomes, Objectives and Performance Measures document (Appendix B) and is part of the Performance Based Management System used to evaluate the overall performance of BSA in the management and operation of BNL.

The fiscal year 2000 report will be submitted to DOE in October. The Appendix B document is available on BNL's Web site at: [www.bnl.gov/bnlweb/perfmeasures.html](http://www.bnl.gov/bnlweb/perfmeasures.html). Performance Measure owners who contribute to the annual report should expect an e-mail data call during the week of September 11. All data must be collected by early October. If you have any questions regarding this report or the data call, then contact Robert Lavelle, Ext. 7747.

## Advances in MRI Technology

(cont'd)

external magnetic field and radio wave pulses to produce clear, detailed images of soft tissue deep within the body. The clarity of an MR image depends on several factors, including the strength of the magnet producing the magnetic field.

Because contrast agents make it easier to identify different tissue types in MR images, they are used in 30 to 40 percent of all MRI examinations. After they are injected, they travel throughout the body in the blood vessels.

Blood vessels found in tumors tend to release the contrast agent more readily than other vessels, particularly those in the brain. Therefore a higher concentration of contrast agent is often present in tumors compared to other tissue areas of the body, which

is why the tumor will display more prominently in the MR image.

For a contrast agent to enhance an MR image, it must interact with the body's water molecules. Since contrast agents are unable to penetrate into the body's cells, where most water is located, the water must exit the cells to interact with the contrast agent in the space outside the cells.

Previously, scientists assumed that the time a water molecule spent inside a cell was infinitely short. It was this assumption that resulted in calibration errors. However, in studies on the thigh muscle of a rat, published last year in *MRM*, the BNL/USB scientists demonstrated that the time a water molecule spends inside a cell is measurable, and, while very

small, is certainly not infinitesimal.

Once the team understood how long a water molecule remains inside a cell, they were able to revise the way contrast agent calibrations are performed. As a result, a much more accurate determination of contrast agent concentration inside the body will be available.

"This research will ultimately provide us with a more precise tool for evaluating the properties of tumors," said Springer. "The more we know about properties such as the permeability of blood vessel walls to the contrast agent and the actual space accessible to the contrast agent, the better we can identify and study different types of tumors, lesions, and other tissue abnormalities inside the body," Springer concluded. — John Galvin



## Fight Breast Cancer

### 7th Walk for Beauty, 9/24

On Sunday, September 24, the Lab community is invited to join the BNL team that will participate in the 7<sup>th</sup> Annual Walk for Beauty, starting from Stony Brook Post Office. The proceeds will benefit breast cancer research at the University Hospital and Medical Center at Stony Brook.

Last year, more than 60 members of the BNL community walked. Members of BNL's Women's Program Advisory Committee are coordinating this year's Lab effort, and they hope to sponsor a record number of participants from BNL. For information and registration forms, call Ext. 2720.

### Walk at Jones Beach, 10/15

The American Cancer Society's "Making Strides Against Breast Cancer" walk on Sunday, October 15, is another chance for the Lab community to help fund cancer research by walking, this time on the Jones Beach boardwalk.

Information and volunteer registration packets are available in the BERA Sales Office, Berkner Hall, weekdays, 9 a.m.-3 p.m. For more information, call Andrea Dehler, Ext. 3347; or M. Kay Dellimore, Ext. 2873.

## Healthfest Volunteers

Healthfest 2000 — BNL's eighth week-long annual celebration of personal health, fitness, and safety — will start on Monday, October 23, and will continue through October 27.

Volunteers are needed for the Monday walk, the Tuesday run, and Wednesday and Thursday health fair days. For more information, contact Healthfest organizer Mary Wood, Ext. 5923, wood2@bnl.gov.

## Jumpstart Your Invention, 9/14

### Inventors' Workshop

Through the Small Business Development Center and BNL Outreach Center, the Long Island Forum for Technology (LIFT) will hold a workshop, "Jumpstart Your Invention," on Thursday, September 14, in the Chemistry Department's Hamilton Seminar Room, Bldg. 515. Registration will begin at 8:30 a.m., and the workshop will be held from 9 a.m. until noon.

Workshop topics will include overviews of the CAD system, rapid prototyping, marketing plans, feasibility studies, and financial strategies.

The cost of the workshop is \$10, which includes continental breakfast. To register, mail your name, address, phone number, number of people attending, and a check for \$10 per person, to: Small Business Development Center, BNL Outreach Center, SUNY at Stony Brook, Room 103, Harriman Hall, Stony Brook, NY 11794-3775. For information, call 631-632-1569, or e-mail lrurup@notes.cc.sunysb.edu.

## Volunteers Needed

### Computer Instructors

BNL is the home of a community-based computer training course called Learning & Information Networking for Community via Technology (LINCT).

To run the next LINCT program, starting on September 25, BNL volunteers are needed to donate two hours per week for 12 weeks to train community members who cannot afford other computer training. Classes are held 9-11 a.m. and 11 a.m.-1 p.m., using training materials provided by LINCT. Upon graduation, participants are given the computers that have been donated by local companies. To volunteer in the LINCT effort, contact Sol Rosario of the Diversity Office, Ext. 6253; or srosario@bnl.gov.

## Retirement Counseling

A TIAA-CREF representative will visit the Lab on Tuesday and Wednesday, September 26 & 27, to answer BNL employees' questions regarding the TIAA-CREF retirement plan. Questions employees might ask include:

- What are the differences between TIAA and CREF?
- How should I allocate my money between TIAA and CREF?
- What options and flexibilities do I have for my existing dollars with TIAA-CREF?
- What are my retirement options?

Several 45-minute one-on-one counseling sessions are available; to arrange one, call Duane Walden, 800 842-2733, Ext. 7289 (not on-site Ext. 7289).

## Arrivals & Departures

**Arrivals**

**Harold G. Cubillos** ..... Info. Tech.  
**Martin J. Kelly** ..... Plant Eng.  
**John W. Petes** .... Safety & Health Svcs.  
**Stephen L. Tortora** ..... Waste Mgmt.

**Departures**

**Craig R. Consiglio** ..... Physics

## Coming Up

On Tuesday, September 19, at 4 p.m., in Berkner Hall, Peter Moore of the Department of Chemistry, Yale University, will deliver a BSA Distinguished Lecture on the structure of the ribosome. The Lab community and the public are all welcome. Refreshments will offered before and after the lecture.

•

On Wednesday, September 20, the BSA Cultural Program will start anew its noon recitals with a mix of Celtic music — reels, jigs, slides, polkas, and slow airs to be played by Kevin O'Reilly, 1997 winner of the All-Ireland Fiddle Championship. The complete BSA recital and concert schedule is available at <http://www.instant.suffolk.com>. To receive automatic announcements, send a blank e-mail to BNLMUSIC-subscribe@listbot.com or browse <http://BNLMUSIC.listbot.com>.

## Defensive Driving

The training group of the Safety & Health Services Division will offer a six-hour defensive driving course on Saturday, September 23, 9 a.m.-3:30 p.m., in Berkner Hall, Room B.

The course is open to BNL, BSA, and DOE employees, BNL facility-users, and their families, at \$23 per person. To register for the driving course, send a check made out to Empire Safety Council, to Scott Zambelli, P.O. Box 670, Mount Sinai, NY 11766. All checks must be received by Monday, September 18. Include your phone number on the check in case you need to be contacted.

## 'Fall Colorscape'

*Fine Arts, Poetry, Music, September 21-23*



**Poet Miriam Kroon (left) and artist Helen Giaquinto will give workshops as part of the art and poetry celebration to be held at BNL in September.**

Roger Stoutenburgh D0090900

Celebrate fall with fine arts, poetry and music during several events at BNL, to be held from Thursday through Saturday, September 21-23. Collectively entitled "Fall Colorscape," the events feature distinguished professional artists and writers from the Suffolk County branch of the National League of American Penwomen, which is headquartered in Washington, D.C. All the Lab community and the public are welcome to attend the Fall Colorscape events, which are free.

Sponsored by the BNL Art Society and BSA, Fall Colorscape will include:

- **Art Exhibit** — Thursday & Friday, September 21 & 22, 5 -7:30 p.m., Saturday, September 23, noon-4 p.m., Brookhaven Center North Room. Refreshments and music will be provided, with poetry readings on Friday evening.
- **Poetry Workshop** — Thursday, September 21, 12:15 to 1:15 p.m., Berkner Hall lobby. Poet Miriam Kroon will give an informal poetry workshop called "Shaping Words," which will include editing and rewriting.
- **Watercolor Demonstration** — Friday, September 22, 12-1 p.m., Berkner Hall lobby. Artist Helen Giaquinto will demonstrate watercolor painting, offering tips for those interested in trying the medium.

## A New Look for the Bulletin

The Brookhaven Bulletin has some changes ahead. After several months of redesign, taking into consideration comments from the January 2000 Brookhaven Bulletin survey and other sources, a new style layout has been completed. The new look will make its debut on Friday, September 15. Some noticeable changes:

- New name - Most people say, "the Bulletin," so, that will be the name.
- Updated design for the flag, or top area of page 1 - The new flag includes the BNL logo and has been chosen from many versions of various possible designs.
- Calendar of BNL recreational events — to appear at least twice a month. All submissions will appear in date order, earliest events first when space is tight.

Send announcements to: [bulletin@bnl.gov](mailto:bulletin@bnl.gov). If you have no e-mail access, fax to Bulletin, Ext. 3368, or mail to Bulletin, Bldg. 134. Include: event name, date, time, location, contact phone, e-mail, brief (25-word max) description, www address if available.

- A longer article about a calendar event may also be submitted separately to the Bulletin. The calendar item would then have an asterisk to show that more information is printed elsewhere in the paper.

Let us know how you like the changes. We welcome your suggestions. Your idea may not be used, but it will help in future planning. Much work has gone into this new look, but improvements are always possible.

## Bronx Zoo Trip, 9/16

The Lab community, especially those living with children in the on-site apartments, is invited to join in the Hospitality Committee's bus trip to the Bronx Zoo on Saturday, September 16. The bus will leave from the Lollipop House at 9 a.m. and will depart from the zoo at 5 p.m. For more information, call Hospitality Chair Mimi Luccio, 821-1435, or Vicky Chang, Ext. 1053.

## Volleyball League

Fall is around the corner, so it's time to put together teams for the 2000-01 BERA Volleyball League season. The first captains' meeting will be held on Wednesday, September 20, at noon in Berkner Hall, Room C.

To form a team, bring a completed roster to the captains' meeting. Blank roster forms and other information about the league may be found at the BERA volleyball website [www.vb.bnl.gov](http://www.vb.bnl.gov).

Those interested in playing but who are not on a team may contact Travis Shrey, [shrey@bnl.gov](mailto:shrey@bnl.gov) or Ext. 7451, to be included in the players' pool. Join in even if you do not play well, as there is a league for every level of skill.

## Holiday Notes

*In observance of Labor Day, BNL will be closed on Monday, 9/4. No Bulletin will appear on Friday, 9/8, and the following schedules will be in effect:*

- **Credit Union** — Closed 9/4. The automatic teller machine in the foyer of Berkner Hall will remain open.
- **Food Service** — Cafeteria: open 7:30 a.m.-2 p.m. on Saturday, Sunday, and Labor Day with regular weekend brunch services. Brookhaven Center: closed on Saturday & Sunday. Open on Monday, 5 p.m.-9 p.m., with a reduced menu.
- **Gym & Pool** — Swimming pool: closed for construction. Gym: closed for Labor Day weekend, will reopen the following Saturday, 9/9, 10 a.m.-5 p.m.
- **Omega Leisure Travel Office** — Closed Monday-Wednesday, 9/4-6.
- **U.S. Post Office** — Upton Branch will be closed 9/4, no mail delivery.
- **Research Library** — Closed on Monday, 9/4.

Dosimetry badges will be exchanged today, Friday, September 1. Therefore, place your badge in its assigned rack space before leaving work today.

## BROOKHAVEN BULLETIN

Published weekly by the Media & Communications Office for the employees, facility-users and retirees of BROOKHAVEN NATIONAL LABORATORY

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On the World Wide Web, the Brookhaven Bulletin is located at [www.pubaf.bnl.gov/bulletin.html](http://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](http://www.pubaf.bnl.gov/calendar.html).

# REGISTER NOW

## *BNL Dance Club*

### BALLROOM DANCE LESSONS

starting Wednesday,  
September 13

North Ballroom,  
Brookhaven Center

— for beginners —

#### AMERICAN BALLROOM 101

6-7 p.m. introductory class, 4 dances:  
lindy starts 09/13, swing starts 09/27  
bolero starts 10/11, tango starts 10/25  
— \$30 per person/8 weeks —

— for continuing students —

#### AMERICAN RUMBA & WALTZ LEVEL I & II REVIEW

7-8 p.m. syllabus class, 2 dances:  
rumba starts 09/13, waltz starts 10/11  
— \$30 per person/8 weeks —

— for experienced dancers —

#### AMERICAN SMOOTH/ INTERNATIONAL STANDARD TECHNIQUE & PRINCIPLES

8-9 p.m. master class  
dances selected by consensus  
— \$40 per person/8 weeks —

**R**egister in advance of the first day of class, as these classes are popular and enrollment is limited! BNL employees, retirees, facility-users, guests, family, and friends are welcome! For more information, contact:

- Marsha Belford, club president, belford@bnl.gov or Ext. 5053;
- Ron Ondrovic, vice president, ondrovic@bnl.gov or Ext. 4553.

## Softball Party

All Softball League players, their families and friends of 21 and over are invited to the BERA Softball League party. The party will be held at the Brookhaven Center on Friday, September 29th, starting at 5:30 p.m. Tickets are \$10 per person which covers the cost of a DJ and a buffet dinner with two drink coupons for beer, wine, or soda. There will be a cash bar.

Everyone attending must have a ticket! To buy tickets, bring cash to Andrea Eppe, Bldg. 51M, by Friday, September 15. No tickets will be sold at the door. For more information e-mail softball@bnl.gov.

## Rifle & Pistol Club

The BNL Rifle & Pistol Club's next monthly meeting will be Wednesday, September 13, at noon, in the Bldg. 535A conference room. For more information call Joe Gatz, Ext. 4212; Jim Durnan, Ext. 5993; the R&PC hot line, Ext. 2658; or go to the club's Web page at [www.bera.home.bnl.gov/clubs/rpc/rpc.html](http://www.bera.home.bnl.gov/clubs/rpc/rpc.html).

## Country-Western Club

If you were a member of the now defunct BERA Country-Western Dance Club, then inquire about free lessons with the BNL Ballroom, Latin & Swing Dance Club, starting on Wednesday, September 13. For more information, contact Marsha Belford, belford@bnl.gov or Ext. 5053.

## Bowling for Dollars

The BERA Men's Money Bowling League is open to BNL workers, facility users, their families and friends. From September 5, the league will meet on Tuesday nights, with a 6:30 p.m. start. For more information contact John McCaffrey, Ext. 2075; Ron Mulderig, Ext. 3084; or Ken Kobel, Ext. 7351.

## Classified Advertisements

**LAB RECRUITMENT** – Opportunities for Laboratory employees only.

NS8631. ADMINISTRATIVE POSITION – Requires a degree in computer technology or business or equivalent experience, strong database, analytical, communication, interpersonal, and customer-service skills as well as knowledge of Laboratory policies and procedures. Proficiency in MS Access and Word is also required; MS Outlook and web design skills desirable. Responsibilities include extensive interaction with NSLS user community and staff, utilizing various databases, coordination of the NSLS General User Program, processing general and proprietary user proposals, as well as issuing NSLS user appointment, training exams, and TLD's. Additional responsibilities include database maintenance, input, and reporting under the direction of the NSLS User Administrator. National Synchrotron Light Source Department.

NS8630. DATA SERVICES POSITION – Requires an AAS in computer technology or business or equivalent experience as well as database maintenance skills, strong analytical, communication, and interpersonal skills and knowledge of Laboratory policies and procedures. Proficiency in MS Access and Word required; MS Outlook and WordPerfect skills desirable. Responsibilities will include issuing NSLS user appointments, training exams, and TLD's, and other database maintenance, input and reporting under the direction of the NSLS User Administrator. National Synchrotron Light Source Department.

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

NS7608. HEALTH PHYSICIST POSITION – Requires a bachelor's degree in science or engineering, the ability to work independently, and excellent oral and written communication skills. Additional requirements are 5 years' applicable experience and formal internal dosimetry education and training. An MS and CHP desirable as is knowledge of the CINDY computer code and Canberra ACCUSAN II, ABACOS 2000, and GENIE 2000. Will be responsible for providing internal dosimetry services to the BNL community and operating and maintaining the BNL Internal Dosimetry Program, which includes in vivo and in vitro program elements. Safety & Health Services Division.

DD8846. TECHNICAL POSITION – Requires an AAS degree in a technical field or equivalent experience and relevant field experience. Must possess 40 hour HAZWOPER training or the ability to pass training, respirator qualification or ability to be qualified. Additional requirements include the ability to obtain and maintain DOE clearance and availability to work shifts as needed. Will provide health physics coverage by performing, documenting, and posting radiological surveys, performing contamination and exposure surveys, collecting samples, and ensuring proper Division and site-wide procedures are followed. Radiological Controls Division.

TB8689. ELECTRONIC TECHNICIAN POSITION - Requires a bachelor of technology degree in electronics or equivalent, and experience with analog, digital, and rf circuits, as well as prototype construction skills. Good communication skills and the ability to work in a group setting are important. Responsibilities will include testing, fabricating, designing, maintaining, and repairing of sophisticated instrumentation systems for particle accelerators. Collider-Accelerator Department.

DD8928. CARPENTER POSITION – Under minimum supervision lays out, constructs, modifies, and maintains buildings and component parts from construction drawings, rough sketches or verbal instructions. Works with wood, wood substitutes, combination materials, flooring, roofing, and wall materials. Uses hand, portable, and fixed tools common to building construction trades. Installs cabinets, door frames, window glass, interior finishes, and hangs doors. May perform Cabinetmaker duties as required. Plant Engineering Division.