



September 28, 2007

## José Rodriguez to Receive Technical Achievement Award

Tosé Rodriguez of the Chemistry Department will receive an Outstanding Technical Achievement Award from HE-NAAC, a nonprofit organization that honors the outstanding contributions of Hispanic American professionals in science, engineering, technology and mathematics. Rodriguez will be honored at the HENAAC Awards Show in San Diego on October 12.

"I am honored to receive

"My research on catalysts is lysts used for the production of entering a new phase with state-of-the-art tools available to me at Brookhaven Lab's Center for Functional Nanomaterials (CFN). My collaborators from Hispanic and American universities and I are studying catalysts that may optimize the production of hydrogen, which is expected to be the fuel of the future."

During his 16-year career at BNL, Rodriguez's primary this award," said Rodriguez. research focus has been on cata-

## BSA Distinguished Lecture, 10/5 **Astronomer Squyres on Science Results From Mars Exploration Rover Mission**

C teven Squyres, a scientist with the Mars Exploration Rover Mission, will speak on "Science Results from the Mars Exploration Rover Mission" on Friday, October 5, at 4 p.m. in the Laboratory's Berkner Hall. The talk is sponsored by Brookhaven Science Associates, the company that manages BNL, to bring topics of general interest before the Lab community and the public. The lecture is free and open to the public. Visitors to the Lab age 16 and over must bring a photo ID.



NASA launched two Mars Exploration Rovers, on June 10 and July 7, 2003, primarily to probe the history of water on the red planet. After landing on Mars in January 2004, the robots began to explore the planet. One of the most important scientific goals of the mission was to find and identify a variety of rocks and soils that provide evidence of the past presence of water on the planet. To obtain this information, Squyres is studying the data obtained on Mars with several sophisticated scientific instruments. In his talk, he will discuss his conclusions about water on Mars and

other observations about the nature of the planet.

Steven Squyres earned a B.S. in geology and a Ph.D. in astronomy from Cornell University in 1978 and 1982, respectively. He joined NASA Ames Research Center, where he worked as a postdoctoral associate and research scientist for five years, returning to Cornell in 1987 as a faculty member. Currently, he is the Goldwin Smith Professor of Astronomy at Cornell.

Squyres has participated in many planetary spaceflight missions, including the Voyager mission to Jupiter and Saturn and the Magellan to Venus. He was a member of the Mars Observer team and a co-investigator on the Russian Mars '96 mission. In addition to his current position on the Mars Exploration Rover Mission, Squyres is also co-investigator for the Mars Express mission, a member of the Mars Reconnaissance Orbiter's High Resolution Imaging Science Experiment team, as well as a member of the Mars Odyssey mission and the Cassini mission to Saturn. Among Squyres' honors, he received the H.C. Urey Prize from the American Astronomical Society in 1987, and the Carl Sagan Memorial Award in 2004. In 2007, he was awarded the Franklin Institute's Benjamin Franklin Medal in Earth and Environmental Science. Squyres is the author of Roving Mars: Spirit, Opportunity and the Exploration of the Red Planet, published in 2005. — Diane Greenberg

clean, efficient, renewable fuels and for the control of environmental pollution. Rodriguez and his research team have made significant advances in these areas. For example, they recently studied gold deposited on ceria (cerium-oxide) nanoparticles at BNL's National Synchrotron Light Source (NSLS) and found the catalyst's active phase responsible for the conversion of water and carbon monoxide to hydrogen gas and carbon dioxide. Understanding this "water-gas shift" reaction is important for generating hydrogen, which can be used for chemical transformations as well as a fuel in a hydrogenbased economy.

In new research funded by the Office of Basic Energy Sciences within the DOE Office of Science, Rodriguez and researchers from the NSLS and CFN will combine their efforts with those of scientists from

## **BNL's Instrumentation Division Builds the 'Brains' of Electronics**

heir small, intricately placed hooks, lines, nubs, and circles look I more like a piece of modern art than part of a machine. But these printed circuit boards are the so-called "brains" of sophisticated electronic devices in experiments throughout the Lab, supplying important data to everyone from nuclear physicists to biologists. Exposed to extreme environments such as high radiation, humidity, and cryogenic temperatures, these boards are not readily available in the commercial market. So the job is left to a group of scientists and engineers in the Instrumentation Division to design, fabricate, assemble and test the custom-made boards, a complex process that can take many months, and a lot of brain-racking, to complete.

#### **Putting Together the Puzzle**

It all begins in the Printed Circuit Board Design Group, where designers click and drag their computer mice across what looks like brightly colored subway maps. When a new experiment is being planned, the project engineers work with the designers to construct the electronic boards, handing off a hand-drawn schematic that details the needed connections, components, and any additional requirements for the boards.

"Sometimes the schematics are even on paper napkins and we have to translate that into electronic format," said Design Group leader Anand Kandasamy.





the University of Barcelona, University of Seville, and Central University of Venezuela to investigate and improve the performance of nanocatalysts. They are studying a critical step in processing of pure hydrogen for fuel cells and other

industrial applications with the goal of gaining information on how several promising nanocatalysts function. The researchers' approach is unique because they will apply a suite of powerful research tools that (continued on page 2)

## What is a Printed **Circuit Board?**

Printed circuit boards are used to support and connect electronic components using conductive pathways, or traces, etched from copper sheets laminated onto a non-conductive material. At BNL, they are used in a wide variety of devices - from particle detectors to caps used to study the brains of rats. In the same way that signals produced by your body, such as pain, would not mean anything without the brain to process and make sense of them, signals produced in experiments are no good without circuit boards. The complexity of the boards can vary greatly, from single-sided boards to multi-layered boards anywhere from 12-14 layers thick. Yet, even the most complex boards aren't much thicker than an eighth of an inch. Thanks to new machinery, technicians in the Instrumentation Department are capable of fabricating boards with as little as 1/1000th of an inch of spacing between conducting circuit lines.





The Instrumentation Division's Printed Circuit Board Design Group: (from left) Anand Kandasamy, Kevin Wolniewicz, Ron Ryan, Kim Ackley.

Using computer software, the designers then start the layout, looking for the fit that keeps the connections as short as possible while incorporating the many necessary components. To help avoid confusion, each layer of the board is given a different color on the computer screen as the designers attempt to complete the puzzle.

"You need to know about electronic signals and intricate details about the boards and what they want to do," Kandasamy said. "Some people think it's just like connecting dots, but that's far from the truth." — Kendra Snyder

Part II, on what happens to the circuit board when the designers' work is finished and sent to the Printed Circuit Board Fabrication Group and the Assembly Group will appear in another Bulletin. To get the full story now, see www.bnl.gov/today/static/instrumentation.asp

#### A Circular Board

Sometimes an experiment calls for something that breaks the mold of regularly shaped circuit boards. That was the case for the time-projection chamber in the Laser Electron Gamma Source (LEGS), a nuclear physics project at the National Synchrotron Light Source. LEGS, which ended operations in November 2006, required a circular, 11-layer board with unusual characteristics. After about eight months of innovative development, Technical Associate Designer Kim Ackley produced the final design.



### The Bulletin

## CALENDAR OF LABORATORY EVENTS

#### • The BERA Store in Berkner Hall is open weekdays from 9 a.m. to 3 p.m. For more information on BERA events, contact Andrea Dehler, Ext. 3347, or Christine Carter, Ext. 2873.

- Additional information for Hospitality Committee events may be found at the Lollipop House and the laundry in the apartment area.
- The Recreation Building #317 (Rec. Hall) is located in the apartment area.
- · Contact names are provided for most events for more information.

## - EACH WEEK -

## Weekdays: Free English for Speakers

Of Other Languages Classes Beginner, Intermediate, Advanced classes. Various times. All are wel-come. Learn English, make friends. See www.bnl.gov/esol/schedule. html for schedule. Jen Lynch, Ext. 4894

Mondays: BNL Social & Cultural Club Noon-1 p.m., Brookhaven Center, South Room, free beginners dance lessons. Rudy Alforque, Ext. 4733, alforque@bnl.gov

Mondays: Pilates Noon-1 p.m. Rec. Hall. Ext. 5090

Mondays & Wednesdays: Pilates 5:15-6:15 p.m. Rec. Hall. Ext. 5090

Mondays: Jiu Jitsu Club

6:30-7:30 p.m. B'haven Center. All levels, ages 6 & up. \$10/class. Tom, Ext. 4556

Mondays & Thursdays: Kickboxing \$5 per class. Noon-1 p.m. in the gym. Registration is required. Ext. 8481

Mon., Thurs., & Fri.: Tai Chi Noon-1 p.m., B'haven Center North Rm. Adam Rusek, Ext. 5830, rusek@ bnl.gov

## Tue., Thurs. & Fri.: Ving Tsun Kung Fu

Noon-1 p.m., B'haven Center, North Room. Taught by Master William Moy. Scott Bradley, Ext. 5745, bradley@bnl.gov

#### Tues. & Thurs.: Jazzercise Noon, Rec. Hall. Ext. 5090.

**Tuesdays: Hospitality Coffee** 10:30 a.m-noon, Rec. Hall lounge. All welcome. Ext. 5090

Tuesdays: BNL Music Club Noon, B'haven Center, N. Room. Come hear live music. Joe Vignola, Ext. 3846

Tuesday & Thursday: Aerobic Fitness 5:15 p.m., Rec. Hall. 10 classes for \$40 or \$5 per class. Pat Flood, Ext. 7866, flood@bnl.gov

Tuesday & Thursday: Aqua Aerobics 5:30-6:30 p.m., Pool. Ext. 5090

Tuesdays: Knitting, Crochet Club 2-4 p.m. Rec. Hall. Lessons of basics, yarns, needles available. Su Yen Chae, Ext. 1051, suyenchae@yahoo.com.

#### **Tuesdays: Toastmasters**

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

Tue., Wed. & Thu: Rec Hall Activities 5:30-9:30 p.m. General activities, TV, ping pong, chess, games, socializing. Christine Carter, Ext. 5090.

#### Wednesdays: On-Site Play Group

10 a.m.-noon. Rec. Hall. Infant/toddler drop-in event. Parents meet while children play. Petra Adams, 821-9238.

#### Wednesdays: Ballroom Dance Class

B'haven Center, N. Ballroom. Instruc-tor: Giny Rae. Starts September 12 and 19. Ext. 3845.

#### Wednesdays: Weight Watchers

Noon-1 p.m. Michael Thorn, Ext. 8612 Wednesdays: Yoga

Noon-1 p.m., B'haven Center. Free. Ila Campbell, Ext. 2206, ila@bnl.gov

s of October 1, A Ernest Tucker of the Training Office within the Human Resources & Occupational Medicine Department (HROM) and co-chair of the Brookhaven Advocacy Council will take a new, two-part position in HROM — he will work with

Susan Foster in the **Employee Relations** Office and Donna Dowling in the Labor Relations Office.

In the Employee Relations Office, Foster helps employees to resolve work-related issues such as conflicts

between co-workers and supervisors, performance evaluations, and questions on medical leave. Tucker will work with Foster to help resolve these and other, similar issues.

Says Foster, "I am looking forward to having Ernie to work with me in this office. His

Ralph Fullwood, who retired from the Department of

Advanced Technology in 1997,

has put his 800-page phys-

ics book on the web. To read

or copy Fullwood's "Natural

Philosophy: Physics with a Per-

ralphfullwood.com.

sonal Computer," go to www.

Says Fullwood, "In addition g

ics, an objective of the book is to

capture the romance of the sub-

ties involved. Some were highly

religious, some were not. Some

were poor and disadvantaged,

one was a prince. The book con-

tains 81 computer programs -

provided as downloadable files

each line of programming."

with bilinear explanations of

To run these programs re-

quires the Basic language run-



Donna Dowling, Ernest Tucker, and Susan Foster

**Tucker Takes New, Two-Part HROM Position** 

background experience at the Lab and in this Division will be of particular value in many of the concerns that we regularly need to consider."

Tucker's work with Dowling will relate to labor relations for the three bargaining units represented at the Lab. He will assist in resolving grievances and take part in arbitration hearings and union negotiations.

"Ernie has been giving safety training classes for 17 years and is known and well-liked in the Lab community. In labor relations

Fullwood Publishes Physics Book Online

(left) then a BNL guest scientist, presented a copy of another of his books, "Probabilistic Safety Assessment in the Chemical and Nuclear Industries," just published by Butterworth-Heinemann, Oxford, to the BNL Research Library, represented here by Library Manager Bruce Style.

mony, hydrodynamics, nuclear criticality, accelerators, and beam transport. Fullwood says he more or less ends with relativistic quantum mechanics and what he calls the quantum paradox that may show transmission at greater than the speed of light.

## **Arrivals & Departures**

<ul> <li>Arrivals –</li> </ul>	
Carl Andre	Biology
Hengjie Ma	NSLS-II
Christine Muniz	Fiscal
<ul> <li>Departures –</li> </ul>	
Kisub Kim	CMP&MS
Cheryl Werts	. Plant Eng.

#### Cancer Research Walk, 9/30

A BNL team will join the annual 4/6 kilometer walk through

work, the ability to look at things from different angles is essential. Ernie has this capability and I believe he will be an asset to the Lab in this position," says Dowling.

Says Tucker, "I plan to follow the lead of Sue Foster and Donna Dowling in taking a balanced approach to resolving diverse employee issues that will continue to ensure a healthy workplace for all Lab employees."

Gretchen Cisco of the National Synchrotron Light Source, the

Brookhaven Advocacy Council Co-chair who worked with Tucker, will now work with Angela Melocoton of the Nuclear and Particle Physics Directorate, who has been named Co-chair to replace — Jane Koropsak Tucker.

Symposium, Reception, 10/19 **Celebrating 60** Years of Discovery at BNL

As part its 60th anniversary celebration, on Friday, October 19, BNL will host a full-day symposium for employees and others interested in hearing renowned scientists speak about past and current developments in fields in which the Lab has been and continues to be a pioneer. In Berkner Hall, talks on topics ranging from nuclear and particle physics to neuroimaging, nanoscience, climate change, and energy will be held 9 a.m. -5 p.m., followed by a celebratory reception to which all are invited.





ning in DOS or adaptation to C or Visual Basic. Included are known mathematical tricks and one discovered for this book: the use of the magnetic monopole for deriving Ampere's first law. Subjects not often found are covered, such as musical har-

## Fidelity Investment Counseling, 10/24

A Fidelity Investment representative will be at the Lab on Wednesday, October 24, to hold sessions with individual employees interested in learning more about their retirement-savings and investment options. Schedule one of the 30-minute appointments by calling (800) 642-7131.

#### **Rodriguez to Receive Achievement Award** (cont'd)

actual reaction environment. degrees in chemistry and These experiments may lead to chemical engineering, and a the development of new, immaster's degree in chemistry

In 1999, Ralph Fullwood,

#### Thursdays: Reiki Healing Class

Noon-1 p.m., Bldg. 211 Conference Rm. Nicole Bernholc, Ext. 2027

#### Fridays: Family Swim Night

5-8 p.m. BNL Pool. \$5 per family

#### Fridays: BNL Social & Cultural Club

Noon-1 p.m., B'haven Center, South Room, free beginners dance lessons. 7-11:30 p.m. North Ballroom, Dance Social, workshops. Rudy Alforque, Ext. 4733, alforque@bnl.gov

## **CIGNA Representative**

A CIGNA Healthcare representative is available as needed in Human Resources, Bldg. 400, or by phone to assist with claims issues you have been unable to resolve yourself through Cigna's Customer Service number (1-800-CIGNA24). Mary Beth Kivlen will be available by appointment only. You will need to provide all pertinent documentation. To schedule, call the Benefits Office, Ext. 5126.

proved catalysts.

Born and raised in Venezuela, Rodriguez maintains close ties with the Hispanic community. He has been a mentor to more than 20 graduate students and research associates at Brookhaven, many of them being of Latino heritage. Since 1999, he has given talks each year at universities in Hispanic countries, including Argentina, Mexico, Spain and Venezuela. He also is an adjunct principal investigator at the Venezuelan Institute of Scientific Research, and he has been an organizer and session moderator for the

San Luis Symposia, a workshop

designed to foster new col-

laborations between research-

ers from the U.S. and Latin

America who specialize in the

chemistry of surfaces, with spe-

Rodriguez earned bachelor's

cial emphasis on catalysis.

from Simon Bolivar University in Caracas, Venezuela, in 1982 and 1983, respectively. He came to the U.S. to earn his Ph.D. in physical chemistry from Indiana University in 1988. He pursued postdoctoral studies in chemistry at Texas A&M University and then joined BNL as a research associate in 1991. becoming a tenured senior chemist in 2002.

Rodriguez has published more than 250 articles in top scientific journals, and he has presented more than 60 invited talks at universities and international conferences. He serves on the editorial board of the journal Surface Science and as guest editor for the Journal of Molecular Catalysis. Since 2005, Rodriguez has been an adjunct professor of chemistry at Stony Brook University.

Diane Greenberg

Stony Brook Village to raise funds for breast and prostate cancer research, on Sunday, September 30. A brochure with the registration form, walker sponsor sheet, and directions is available at www. bnl.gov/diversity/womansPrograms/default.asp#Walk\_for\_Beauty or by contacting Joyce Fortunato, Ext. 4229 or mortimer@bnl.gov, or Stasia Ann Scocca, Ext. 3979 or scocca@bnl.gov. Participants are responsible for their registration and fee of \$20 or sponsorship.

## English Language Help Available at BNL

The BNL English for Speakers of Other Languages (ESOL) Program offers informal English classes to help with conversational English and opportunities to practice presentation skills. All those working at BNL and their spouses or partners are welcome to participate. For more information, see www.bnl.gov/esol, and contact Jennifer Lynch, ESOL Program Coordinator, at the ESOL Office in Bldg. 400, jlynch@bnl.gov or Ext. 4894.

### Possible Talk in Recognition of Veterans' Day: **Readjustment Issues for Families**

The Employee Assistance Program at BNL would like to find out if any members of the Lab community would be interested in attending a talk in honor of Veterans' Day, to address readjustment issues for families with sons, daughters, or grandchildren currently serving on or returning from active duty in the armed forces. Any interested employee/family member can contact Nancy Lossino, EAP Manager, at nlosinno@bnl.gov or Ext. 4567, preferably in the next two weeks.

#### The Bulletin

## Then & Now Aerials of BNL, Part I, 1947-69





## 7-383-57





(Above) Three-view panorama of the 1947 site from a tower

(Left) 1957. Main Lab site, looking north. At the top is the Alternating Gradient Synchrotron (AGS), with its one-half-mile in circumference magnet ring, which is housed in a tunnel under 12 feet of earth. Below and to the right are the Brookhaven Graphite Research Reactor and Hot Laboratory. To the left of the AGS is the Cosmotron building, and directly below is the nuclear engineering building. The central buildings include the physics, chemistry, and biology laboratories, and the administration building (Hshaped, center). Lower, left, is the new Medical Research Center, then under construction: the four circular buildings are 12-bed nursing units, with medical research laboratories connected on the right. The present (1957) Medical Department buildings are outside this view, off to the left. Note: No High Flux Beam Reactor, no Bldgs. 555 or 510 or Berkner Hall.

(Below, left) 1969. Main Lab site, looking north. At top left of center is the Alternating Gradient Synchrotron (AGS), then undergoing conversion, and its ancillary buildings. The 400-foot-long tunnel to house the new injector, a 200-MeV linear accelerator, is to the left of the main AGS magnet ring. To the right of the AGS are the Brookhaven Graphite Research Reactor and the Hot Laboratory; to their right is the domed containment vessel for the High Flux Beam Research Reactor (HFBR). Above the HFBR is the Department of Applied Science Building, to the right of which is the High Intensity **Radiation Development Laboratory.** Below the AGS is the cross-shaped Building 555, housing the Chemistry Department. The large building to the right of Chemistry accommodates the Physics and Applied Mathematics Departments. In the lower center is the Medical Research Center, with medical research labs connected on the right. To the right of this area are the Biology Department labs and greenhouses. In the center of the photo is the H-shaped Administration Bldg. 460. Note: Major changes include Berkner Hall, which, it is rumored, was also known as "Flintstones' Folly."

## **CALENDAR** — THIS WEEKEND —

### Friday, 9/28

\*Lunchtime Tour: RHIC Tunnel Noon-1 p.m. Berkner Hall lobby. Employees, users, retirees: meet to be taken to see the RHIC tunnel. Return by 1 p.m. See notice, p. 4.

#### Saturday, 9/29

\*Concert: Two Southern Bands 8 p.m. B/haven Center. Music Club sponsored concert: the Lost Bayou Ramblers and Smokin' Gun. Tickets \$15. See p. 4.

## Sunday, 9/30

\*BNL Walks for Cancer Research

8:30 a.m. Meet at Stony Brook Post Office. "Walk for Beauty." Contact Joyce Fortunato, Ext. 4229. See p. 2.

### - WEEK OF 10/1 -

#### Monday, 10/1

#### Month of Healthfest 2007 Starts

Fitness events to come: 2-mile walk, 5k Run, 8-mile mt. bike ride (w/5-mile alt. route), Table Tennis Tournament, 400yd Swim & a Split Biathlon event. Register online, http:// intranet.bnl.gov/healthfest/ or call Co-chairs Denise Dimeglio, Ext. 2881, or Michael Thorn, Ext. 8612.

#### Tuesday, 10/2

#### Laugh at Lunchtime

Noon-1 p.m. Berkner Hall, Room B. Bring lunch, enjoy "Attack of the Killer Tomatoes." All welcome.

#### Thursday, 10/4

#### Healthfest Fitness Walk

Noon-1 p.m. Outside the Science Ed. Center, Bldg. 438. Walk 2 miles with co-workers, at your own pace.

#### Friday, 10/5

#### Talk on School Success

Noon. Berkner Hall, Room B. Joseph Connoly on "Great Expectations, Strategies for School Success," including accessing special services for your child, bullying, etc. Contact Linda Dipierro, Bldg. 490, OMC, or dipierro@bnl.gov.

#### \*BSA Lecture: Mars Rover Mission

4 p.m. Berkner Hall. Steven Squyres, a scientist from the Mars Exploration Rover Mission, will give a BSA Distinguished Lecture on science results from the mission. All are welcome to this free talk. See story, page 1.

## – WEEK OF 10/8 –

## Tuesday, 10/9

Healthfest: Cancer Prevention Talk Noon-1 p.m. Berkner Hall. Julia Hodorowski, RN, will speak on "Shedding New Light on Cancer: Prevention and Detection." All welcome.

Thursday, 10/11

## Dr. Mow Shiah Lin Scholarship — Award Ceremony, 10/2

The BERA Asian Pacific American Association (APAA) invites all to attend the Award Ceremony for the 3rd annual Dr. Mow Shiah Lin Scholarship, on Tuesday, October 2, at 4 p.m., in the Hamilton Seminar Room, Chemistry Department Bldg. 555. The award of \$1,000 will be presented to Yuan Sun, a graduate student in the Department of Materials Science & Engineering, Stony Brook University. Sun will present an introduction to her research, "Highly Crystalline Rectangular Palladium Nanoparticles: Colloidal Synthesis and Electron Microscopy Studies." Refreshments will follow.

The APAA established the scholarship to honor the life and career of Mow Lin, a distinguished scientist in BNL's Energy Sciences & Technology Department. The scholarship is granted annually to an Asian immigrant with a student visa matriculating toward a graduate degree at an accredited institution of higher education in environmental energy & technology, biology, or chemistry, commemorating the manner in which Lin began his career.

For more information, contact Susan Eng Wong, Ext. 7988.

## **BERA** News, Events

BERA offers a wonderfully varied list of trips and events to join — theater, shopping, art, sports — you choose. Check what's available at the BERA Store, Berkner Hall, open weekdays, 9 a.m.-3 p.m., Ext. 3347, or www.bnl.gov/bera/recreation/events.asp.

## TIAA-CREF One-on-One Retirement Counseling

A TIAA-CREF consultant will visit BNL on Thursday and Friday, October 25 and 26, and Wednesday, October 31, to answer employees' questions about financial matters. The consultant will help you: understand the importance of protecting assets against inflation, find the right allocation mix for you, and more. For an appointment, call Suzanne Leone, (866) 842-2053, Ext. 4601.

## BNL Music Club Sponsors Blue Grass Concert, 10/20 Featuring Buddy Merriam, Guest Dee Harris

A "Grand Ole Opry" concert featuring Buddy Merriam and Back Roads, with special guest Dee Harris, is scheduled on Saturday, October 20, at 8 p.m. in Berkner Hall. Sponsored by the BNL Music Club, the event is open to the public. Visitors to the Lab age 16 and over must bring a photo ID.

Buddy Merriam and Back Roads is an all-acoustic bluegrassstyle band playing traditional favorites and original tunes on mandolin, banjo and guitar. They have performed on Country Music TV and at many Long Island venues, the Grand Ole Opry, Nashville, and the kick-off for the New York City Marathon, and appeared to rave reviews abroad. Dee Harris is a self-taught blues guitarist, songwriter, and vocalist who plays a mixture of Appalachian, Celtic, and classical Indian music.

Tickets are \$15 each if purchased in advance at the BERA Store in Berkner Hall, or \$20 at the door on he night of the show.

#### Healthfest Massage Day

11 a.m.-2 p.m. Berkner Hall, Room B. Ten-min. massage by licensed therapist. Call Ext. 4567 to register.

#### Healthfest Table Tennis Tournament

5-9:30 p.m. Rec. Hall, Bldg. 317. All levels of experience welcome. Register at ping pong-L@lists.bnl.gov.

#### Friday, 10/12

#### Healthfest Mountain Bike Ride

Noon-1 p.m. Gazebo near ball field. Bring your own bike & helmet, ride 8 miles or 5 miles.

## — WEEK OF 10/15 —

#### Friday, 10/19

#### \*BNL 60: Symposium, Reception

9 a.m.-5 p.m. Berkner Hall. Day-long symposium celebrating BNL science, followed by a reception. All are welcome. See p. 2.

## 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 benefits-eligible employees within the department/division and/or appropriate bargaining unit, with preference for those within the immediate work group; (2) present benefits-eligible 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 Access current job openings on the World Wide Web at www.bnl.gov/HR/iobs/.

#### OPEN RECRUITMENT – Opportunities for Lab employees and outside candidates.

ASSOCIATE SCIENTIST - Requires a Ph.D. in nuclear engineering or related field. Must have experience in using computer codes for neutronic and/or thermal-hydraulic analysis and an understanding of reactor behavior. Candidate will work with neutronics codes such as those based on lattice physics, Monte Carlo, and neutron kinetics and/or thermal-hydraulic codes such as RELAP5 and TRACE. The application of these codes is to design new nuclear energy systems or fuel management schemes or to assess the safety of existing or proposed advanced detectors. Candidate is expected to have a general background in nuclear engineering with some experience in working with large neutronic computer codes. The work would involve one or more of the following programs: a) the calculation of properties of the NIST (National Institute for Standards and Technology) research reactor in support of reactor operations and the conversion of the reactor to low-enriched fuel, and b) the analysis of light water reactor properties in support of safety issues being pursued by the U.S. Nuclear Regulatory Commission. Under the direction of D. Diamond, Energy Sciences & Technology Department. Send CV to diamond@bnl. gov, referring to Position No. KH 4490

ASSOCIATE SCIENTIST- Requires a Ph.D. in civil, structural or mechanical engineering and five years of experience in the commercial nuclear power industry. Experience in non-linear finite element analysis, soil-structure interaction, site response, seismic margin analysis, seismic probabilistic risk assessment (PRA), and containment fragility assessment is also desirable. Candidate would carry out structural, seismic, and civil engineering projects and deliver project specific products and services to customers in accordance with contractual requirements; identify opportunities for expanding programs, and identify the best technical approach to assigned projects. Under the direction of C. Hofmayer, Energy Sciences & Technology Department. Send CV to hofmayer@bnl. gov, referring to Position No. KH 4489

RECORDS MANAGEMENT ASSISTANT (A-2) - Requires a bachelor's degree or equivalent; experience in records management or related field; and a working knowledge of records systems and their applications. Experience using Microsoft Office applications; demonstrated ability to communicate effectively both orally and in writing; the ability to work with all levels of personnel with tact and diplomacy; analyze problems, develop alternatives and make recommendations is necessary. Experience in micrographics, archives or other records managementrelated functions is desired. Must be able to work independently within established

99 HONDA CIVIC - 4dr., a/c, rem. ent., grt. cond., runs well. 153K mi. \$5,500/neg. Ernie, Ext. 7406.

> 98 DODGE NEON - 4 dr., a/t p/s p/b, am/ fm, cd, gd. running cond. 71K mi. \$2,500/ neg. 645-4769.

> 98 JEEP WRANGLER SAHARA - 6cyl, a/t, a/c, h/s tops, r/rack w/lts, grill guard, hitch mt. bike racks, 40K mi. \$12,500. Ext. 4994 or 332-0240.

98 FORD EXPED. XLT - 4WD, 5.4 ltr, 3rd seat, lthr, 6 CD, loadd, excel. cond., KBB val. \$8,100. 128K mi. \$6,500. Rich, Ext. 7294. 97 DODGF 1500 PICKUP - club cab. short

bed, 4wd, V8, 5.9L, a/t, CD, bed Inr, towg pkg, excel. 122K mi. \$5,500. Ext. 7647. 96 CHEV CORVETTE - v8 at, removbl roof

panel, gd brakes/tires, grt stereo. 87K mi. \$15,500/neg. George, Ext. 5214.

95 FORD EXPLORER XLT - 4WD, a/c, abs, looks/runs well, v. dependable. 194K mi. \$1,950. Ext. 7251 or 516-924-4299.

93 BMW 525I - blk w/alloy rims, gd. running cond., 2 extra tires on orig. rims. 150K mi. \$4,250. Ext. 2897.

86 TOYOTA CRESSIDA - 6 cyl., a/t, p/s, p/ b, a/c, blk/green, gd. cond., nr. new tires. 170K mi. \$1,500/neg. Kelvin, Ext. 3828. 84 CHEVY MONTE CARLO SS - all orig.,

2 owner car, always maint'd, great cond. \$2,500. Rich, Ext. 7294.

#### **Boats & Marine Supplies**

23' SUNRUNNER 230SB - 84 Midcabin cruiser FWC225 hp Volvo Penta IO full galley head aftcabin shore power canvas great cond \$4,875. Robert, Ext. 4867.

23' PRO-LINE WALK AROUND - 1981, 200 Hp Evinrude, Trailer-1982, 1 fam. since 1982, solid boat, motor rebuilt, needs TLC, \$4250. Nick, 653-8251.

#### Furnishings & Appliances

CHAIR - wing, gd. cond., beige w/green & gold flecks, \$75, must pkup. Ext. 7647. CORNER COMPUTER DESK - w/2 matching bkcases, like new cond., Pic. avail.

\$450, mb@bnl.gov. Mary, Ext. 3670. DINING SET - carved wood, glassedin hutch, table w/leaf, 6 chrs. \$95. Ext.

DINING TABLE - oak, w/4 upholstered chairs/protective pads, 2 leaves, have pics, \$500. 909-1498.

2346.

FREEZER - Frigidaire 14 cu ft., like new, excel. cond., \$150. Katherine, Ext. 2269. OAK TABLE - antique, 54" round, split pedestal/hidden leg, 6 extn. leaves, cust. pads, 8 matching chs, 2 captain's. 878-0898.

PIANO - upright, excel. cond., can mail the pics. & apprsl, \$750. Ext. 7806 or 476-4983. RANGE - Magic Chef, gas, excel. cond., immac., incl. broiler tray, ask/\$100. Ext. 2705. VANITY & MEDICINE CABINET - solid cherry, new cond., orig. price \$230.23 & \$144.55, 24"l x 21.5"w, 34"h; 24"l,7"w,31"h. 878-1037.

#### Audio, Video & Computers

COMPAQ NOTEBOOK PC - CD/DVD software windows vista like new. Ext. 2381. PANASONIC HDTV - 36" Tau series, top line flat scrn tube, prist. cond. 2 compon. inputs, S video AV input \$500. 744-4061. PIANO - Emerson console w/bench, excel. cond., must sell, ask/ \$575. Ext. 4867 or 278-2192.

SPEAKER STANDS - 2, adjustable, great cond., \$30/pr. 921-8202.

TV - 20" RCA w/remote, exel. cond. \$50. Paul, 786-1513.

USB FLASH DRIVE - Kingston, DataTraveler, 1GB, \$10. Yugang, Ext. 3485.

#### Sports, Hobbies & Pets

CELLO - full size, made in Germany, 1950's, excel. cond., new case, \$5,700. Stephen, Ext. 4475.

TREADMILL - v gd. cond., flat/incline, programmable, b/o. Betty, Ext. 3562 or 758-2653.

#### Tools, House & Garden

KITCHEN SUPPLIES - Utensils, pots, balance, plates, cups, multiple socket, elec. kettle, measurg dev., etc. Jo, Ext. 4262. NEW SHED - 8x8, on 4-4x4 treated 4' dr. 25 yr. roof., viny vents, painted any color, \$1200/neg. George, Ext. 5214. SPREADER - Radio Flyer, like new, \$15. Susan, Ext. 7235 or 399-7997.

#### Wanted

2-BEDROOM APT. - needed asap, Pt. Jeff./Pt.Jeff. Sta., Mt. Sinai, Setauket, must accept dog. Ext. 3536.

DOORS - sliding/double hung/interior and steel glass. Bobbi, 291-0245.

LAPTOP - working, reasonable, not too old. Ext. 2346.

TICKETS - 2 concert tickets for Natalie MacMaster at Staller Center for the Arts on Oct. 13. Ext. 2524.

#### Lost & Found

MISSING KEY - single missing key, no ring or other attachment, lost along route of NSLS-Technology-Bell-Center-gym. Anna, Ext. 7132 or 793-4551.

#### For Rent

BROOKHAVEN - 1 bdrm., kit., bath, incl. ht, cable, elec. no smkg/pets, off st. prkg., 12 mins, to Lab. \$950/mo. 924-3492.

ENGLEWOOD, FL - Boca Royal, 2 bdrm., 2 bath, unfurn'd, in gated comm., incl. all appli., pool,/golf, \$1,200/mo. 929-8400 or 744-9746/eve..

LAKE RONKONKOMA - Rent My Quaint Apt! 1 bdrm, I/r, eik, full bath, pvt. ent., own thermostat, cable/util. incl., nr LIE/ LIRR, no smkg/pets, avail. 11/1. \$975/ mo. Susan, Ext. 4410 or 467-1787.

LENOX, MA - 2 bdrm. timeshare unit, avail. 11/17th - 24th. \$800/mo. 909-1498.

MASTIC - 2 bdrm. house, 1/r, d/r, kit, 1 bath, w/d in bsmt., no smkg/pets, util. not incl., 1 mo. sec., avail. 10/15/07. \$1,350/ mo. Carol, Ext. 6033 or 447-6250.

MASTIC BEACH - 4 bdrm. ranch, quiet st. near water, full bath, 100x100 property, sec. \$1,500/mo. Ext. 7658 or 495-2596.

ROCKY POINT - fully furn. 2 bdrm. home, 1 bath, Ig. Ir w/fp, outside deck, 15 min to Lab, heat & elec. incl., ref. req. \$1,500/ mo. 718-746-3987.

SHIRLEY - 1rm, m/wave kitnet, furn, full bath,sep ent, tv, elect, heat, cable, wireless int, all incl, 1 mo. sec, 5 min to stores/beach, 15 to Lab, no smkg/p \$600/mo. Ext. 8321. SHIRLEY - 5 bdrm., 2 car gar., screen rm., 2 kit., 2.5 baths, Ir, dr, full bsmt. \$2,400/ mo. Joseph, Ext. 2982.

SHIRLEY - 1 rm, stove kit., furn., full bath, sep ent, tv, elect, cable, heat, wireless int, all incl., 5 min to stores/beach, no smkg/pets, 15 to Lab,1 mo/sec. \$650/mo. Ext. 8321.

SHOREHAM - share house w/professional, part furn. bdrms., 7 mi. from BNL, int. & tv incl., no smkg. \$600/mo. 413-1966.

SHOREHAM - Ir/br combo, eik, walk/n clst, bathrm w/shwr stall, off st/prkg., sep. ent., elec/cable/heat incl., 1 mo. sec., sm. well behvd pet for addt'l sec. \$825/mo. 849-2593.

STONY BROOK - family cape, 3 bdrm. 1 ba, Ig. Ir & dr, quiet cul-de-sac, walk to campus, opt/furn'd, excl. util. \$1,900/mo. 632-8099/203-664-1046.

STONY BROOK - 1 br, I/r, bath, grd. flr. w/priv. ent., quiet walk to campus, opt./ furn'd, \$800/excl. util. \$800/mo. Michael, 632-8009;203-664-1046.

YAPHANK-MIDDLE ISLAND - Ig. newly decorated, fully furn. studio apt., priv. home, sep. ent., for 1 person, high spd., incl. all. \$850/mo. Irene, 924-3049.

#### For Sale

BELLPORT - 4-BR. ranch, 2 bth, l/r w/dble opening fp to den, d/r, eik, oak flrs, screened deck on priv. yard, laundry rm, fin. bsmt: w/4th BR, bar, full bth, 2 rms; gar., 2 sheds, sprinklers, gt. cond. \$425,000; 949-7797.

BLUE POINT - Col., 5 bdrm. or poten. Mthr/Dghtr, 2 bath, I/r, d/r, kit., bsmt./crawl space, porch, 1.5 car gar., fen. yd., low taxes. \$429,000/neg. Ext. 5025 or 286-1540.

HOLBROOK - 2 bdrm, 1.5 bath, Condo a/c, f/p, kit., l/r, w/d, new wndws, applis., alarm, patio, Sachem dist., low taxes, pool, tennis, mve-in cond. \$309,999/neg. 766-1492. MEDFORD - updated 3 bdrm. Condo in Blue Ridge Devel, for more details go to www.forsalebyowner.com/20793141 \$315/neg. Eileen, Ext. 3995 or 790-4629. SHOREHAM - 4 bdrm, 2.5 bath Col., l/r, d/r, lg. eik, den w/fp, 2 car gar, fin. bsmt., igs, more, \$569,000/neg. Don, 821-3320.

## Lunch Tour Today: RHIC Tunnel, 9/28



Below the surface of the BNL site lies one of the world's wonders of engineering and physics. The Relativistic Heavy Ion Collider tunnel will be featured today, Friday, September 28, on the employee lunchtime tour. All are welcome — employees, facility users, and retirees — to join the group, which will meet in Berkner Hall lobby at noon and return to Berkner by 1 p.m. No reservations are required. All members of the group must wear required safety clothing of long pants and long sleeves and closed toed shoes in order to enter the tunnel. For more information, call Ext. 2400.

## Great Art/Great Market Bus Trip, 10/13 See Landscapes by Impressionist Renoir, Taste and Stock up at Philly Farmers' Market

Seats remain to be filled on a Great Art/Great Market trip organized by BERA for Saturday, October 13. The 1865-1883 landscapes of Auguste Renoir, one of the most popular of the Impressionist artists, are on exhibit at the Philadelphia Museum of Art, and the Lab community group is booked for a special tour to see them at noon that day. In addition to the Renoir, you can see other great works at this renowned museum, which is particularly known for its collections of Pennsylvania German art, 18th century and 19th century furniture and silver by early Philadelphia and Pennsylvania craftsmen, and works by Philadelphia artist Thomas Eakins.

The group will then go by bus to another magnificent Philadelphia landmark: the huge, undercover Reading Terminal Market. There, the Harvest Festival will be in full swing, you can splurge on artisanal foodstuffs and sip beer or wine, eat worsts and Philly cheesesteak, check out one of the best second-hand book stalls you will ever find — and more. The cost of the bus and museum entry is \$35. Buy tickets at the BERA Store in Berkner Hall, Ext. 3347, weekdays, 9 a.m.-3 p.m. The bus will leave the Brookhaven Center at 7:30 a.m. and leave Philadelphia at about 4:30 p.m.

## **Southern Dance Party Tomorrow, 9/29** *Featuring the Lost Bayou Ramblers, Smokin' Gun*



Sponsored by the BNL Music Club, two outstanding bands — the Los

## Lunch Tour Today: RHI

procedures and handle a variety of responsibilities, including non-routine matters. May have frequent contacts within and outside the Laboratory and may direct the work of other support personnel. Must be able to physically lift boxes of records, which may weigh up to 30 pounds. Information Services Division. Send resume to dianah@bnl.gov referring to Position DH 2299.

#### Motor Vehicles & Supplies

06 JEEP WRANGLER UNLIMITED - a/t, a/ c, p/w, 4x4, 6 cyl., blue. 6000 mi. \$17,777/ neg. 903-3383.

02 HONDA ACCORD EXL COUPE - silver, 6 cyl., fully loaded, excel. cond. 48K mi. \$13,000/neg. Maryann, Ext. 4705.

01 NISSAN ALTIMA GXE - a/t, a/c, abs, dual air bag, p/w, p/l, am/fm/cd, excel. cond., ext. serv. contract. 69K mi. \$7,500/ neg. Ext. 3939 or 790-6529.

99 CHRYSLER 300M - leather int., all pwr., well maint'd, runs well, new brakes. 147K mi. \$3,500/neg. Ext. 3050 or 278-6255.

#### Miscellaneous

ENGAGEMENT RING - Marquise cntr stone 10 round diamonds, 20 baguette diamd.s on sides. 14kt, ask/\$1,000. Ext. 2269. MIKASA CHINA - beautiful, white w/platnium edging, 11 sets, pics. avail., \$35/ set, mb@bnl.gov. Mary, Ext. 3670.

OLD SCIENCE FICTION - 17 boxes, 1940s-70s, paperbacks, pulps, ~15 first ed. hdcvrs, grt artwork, \$750 all. Ext. 4477.

TICKETS - 2 for Ballet Folklorico de Mexico, Staller Center, Friday, October 12, 8 p.m., \$37/ea. Alejandro, Ext. 5334.

#### Free

COMPUTER SPEAKERS - Radio Shack, keybrd., ink jet printer & mon, work excel., U pick up. Judy, Ext. 5263 or 375-7959. KITTENS - 2 males, 1 blk, 1 tiger striped, vet shots, house trained, need a home. 928-8112. SHOREHAM - beautiful 5 bdrm., 3 bath Victorian, 3100 sq. ft., .69 acre lot, cac, igp., 2 car gar., formal d/r, bsmt., MLS 1978405 \$689,000 Jim Menno, 831-3140.

WADING RIVER - 4 br, 3 bath Colonial, fin. nsmt, lr/w/fp, 1/2 acre beautiful property, SWRSD, low taxes. \$529,000/neg. Beverly, 516-381-8016.

S. ROYALTON, VT - 2 homes w/3.5 acres, priv. 1st home 2 bdrm, 1 bath, finbsmt, gar, wbs, w/d; 2nd home 1 bdrm, 1 bath, bsmt, washer, wbs, w/furn.+ extras, pics avail. \$330,000/neg. Ext. 7125 or 466-8637.

#### **On-Site Services**

ENTERPRISE RENT-A-CAR - Stop by the on-site office at Bldg. 355, 50 Brookhaven Ave., to check weekend specials, daily rates. Or call Ext. 4888 or see www. enterprise.com.

ON-SITE SERVICE STATION - gas, all vehicle services: NYS inspections, new batteries, tires, timing belts, etc., we also service starter motors for boat engines. Done while you are at work. Ext. 4034.

Bayou Ramblers and Smokin' Gun, both southern music players, will perform tomorrow, Saturday, September 29, at 8 p.m. at the Brookhaven Center. Even if you don't dance, you'll tap your feet! All are welcome to this fun event, which is open to the public. Tickets are \$15 each and may be bought at the BERA Store, weekdays, 9 a.m.-3 p.m. Visitors to the Lab of 16 and over must carry a photo ID.

NAYYARSONS CATERING - Cafeteria: b/ fast: wkdays, \$2.99 up; lunch: \$4.95 up; grill, \$6.50 up incl. fries, soda; Fridays, Catch of Day, from \$5.99; see link on BNL homepage or Ext. 4636 or 3541; B/haven Center - full menu dinners 5-8 p.m.; specials 5-6:30 p.m. 3-course, wine/soda, coffee, \$10.95 or \$9.95 (no take out); all plus tax.

#### Service Ads

A wide range of services advertised by BNL employees are available at http:// intranet.bnl.gov/ads/displayAdsAll.asp on the intranet homepage on site. Or request from bulletin@bnl.gov or phone Liz Seubert, 344-2346.



# Bulletin

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