



Pavel Oblozinsky



Michal Herman

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## Changing of the Guard for National Nuclear Data Center At Brookhaven Laboratory

In this age of technology, a decade can bring transformational change in a field like computerized nuclear data storage. As the National Nuclear Data Center (NNDC), located at BNL, marks a change in leadership, both its new and former directors can take a measure of credit for the organization's success and increasing visibility.

Michal Herman of the Energy Sciences & Technology Department (EST) has been selected as the new head of the NNDC, a worldwide resource for nuclear data. Herman has succeeded EST's Pavel Oblozinsky, who served as director since 2002 and as deputy head since his arrival at BNL in 2000. The NNDC collects, evaluates, archives and disseminates nuclear physics data for basic nuclear research and for applied nuclear technologies.

### Decade of Development

When Oblozinsky returns to his native Bratislava, Slovakia, next year, he will mark 10 years of modernizing the United States' libraries of publicly available nuclear data and bringing the NNDC into the 21st century.

"We improved service dramatically," he said. "Since 2002, use of our services doubled every two years. We introduced the next generation of computer services and released the seventh generation of the reaction data library, providing support for nuclear physics and its many applications. If a new generation of nuclear reactors is developed, the data will be used for the next 100 years."

According to Bill Horak, EST Chair, "Pavel has successfully led the NNDC through a period of great change. When he first accepted the position of director, the NNDC had recently completed the shift from traditional paper-based databases to on-line data services. No one anticipated at that time that we would see the increase in retrievals that did occur. During his tenure, Pavel not only had to upgrade the hardware at least twice, he had to reorganize the management structure of the NNDC to meet these on-line retrieval needs. I

was especially pleased with his efforts to recruit and retain young scientists to ensure the NNDC's continued excellence."

Oblozinsky called the increase in use of the NNDC libraries "unexpected." He observed that it is also used more often by the general public, and not just by scientists, and said there was "a noticeable uptick" in use of the site after the case of the Russian spy poisoned by polonium hit the newspapers a few years ago.

Oblozinsky began his career at the Slovak Academy of Sciences, where he received his Ph.D. in nuclear physics in 1973. During his years there, he served as head of the Nuclear Physics Department, where he developed both the coincidence technique to measure gamma production and tools for interpretation of the data. As a senior scientist there, he conducted extensive research in nuclear reaction mechanisms and gamma production and is best known for his numerous contributions to pre-equilibrium reaction models. Before joining the NNDC staff, Oblozinsky spent seven years as the deputy head of the Nuclear Data Section at the International Atomic Energy Agency (IAEA) in Vienna, Austria. During his years as NNDC head at the Lab, he also served as chair of the U.S. Nuclear Data Program, and chair of the Cross Section Evaluation Working Group. This year, he received an Appreciation Award from DOE's Office of Science for "outstanding leadership to promote nuclear data efforts on an international level."

In his recruitment efforts at BNL, Oblozinsky brought in one scientist in particular who will be critical to the organization's future: Michal Herman, who worked under Oblozinsky at the IAEA and more recently at BNL. Herman arrived at the Lab in 2003 following six years at the IAEA in Vienna, where he managed international nuclear data development projects.

Herman said that while their customer base may be limited, the Center has the most

See NNDC on pg. 2

**The NNDC has provided more than a half-century of data and expertise to the world community**

## U.S. ATLAS, U.S. CMS Projects Receive Achievement Award From Secretary of Energy



DOE Photo by Ken Shipp

Secretary of Energy Steven Chu (left) presented the Secretary of Energy's Achievement Award to U.S. ATLAS and U.S. CMS at the 2009 Annual DOE Project Management Workshop on March 31 in Alexandria, Virginia. Fermi National Accelerator Laboratory's Dan Green (second from left) and BNL's Howard Gordon (center) accepted the awards on behalf of U.S. CMS — Compact Muon Solenoid — and U.S. ATLAS, two detector projects that contributed key components to state-of-the-art particle detectors built for the Large Hadron Collider at CERN, the European laboratory for particle physics, located near Geneva, Switzerland. Pepin Carolan (second from right) served as DOE Federal Project Director for the two projects. Ingrid Kolb (right) is the Director of the DOE Office of Management. Sharing the Achievement Award, which recognizes DOE facilities with outstanding project management in completing projects within cost and schedule, was the Center of Functional Nanomaterials at Brookhaven (see story in the Bulletin of April 3, 2009).

### 448th Brookhaven Lecture, 4/15

## New Chemistry for Artificial Photosynthesis: A Theoretical Perspective

Tree huggers may have been embracing a solution to the world's energy needs all along. Photosynthesis, which occurs in trees, flowers, weeds, or any other green plant, is a natural process in which light produces energy from water and carbon dioxide (CO<sub>2</sub>). Now scientists are working to replicate this process artificially, which could create usable, clean, renewable energy from the harmful greenhouse gas CO<sub>2</sub>, rather than creating it as a byproduct as fossil fuels do now.

On Wednesday, April 15, join James Muckerman of Brookhaven's Chemistry Department for the 448th Brookhaven Lecture, titled "New Chemistry for Artificial Photosynthesis: A Theoretical Perspective." All are invited to attend this free talk, which is open to the public and will be held in Berkner Hall at 4 p.m. Refreshments will be offered before and after the lecture. Visitors to the Lab ages 16 and older must carry a photo ID while on site.

During the lecture, Muckerman will explain photosynthesis and illustrate how electrochemical systems driven by sunlight could carry out artificial photosynthesis to create usable fuels without creating pollutants and undesirable byproducts.

Muckerman earned a Ph.D. in Physical Chemistry from the University of Wisconsin in 1969. He first came to



James Muckerman

Roger Stoutenburg D2300406

Brookhaven as an associate chemist in 1969 and was promoted to chemist in 1973. Muckerman was granted tenure in 1975 and then promoted to senior chemist in 1986. He additionally served as Assistant Chair from 1988 until 1990 and as Associate Chair from 1990 until 1993. He has continued his research as a Senior Chemist at Brookhaven since 1994.

Six years ago, Muckerman changed his primary research focus from gas-phase chemical physics to renewable energy, and he has provided a crucial theoretical component to a number of DOE energy initiative programs at BNL. He has been invited to present his work at numerous conferences, symposia, colloquia and seminars, including the recent Gordon

Research Conference on Renewable Energy: Solar Fuels. Muckerman works with a team of experimental collaborators, each bringing a different perspective and expertise to the quest for new discoveries in chemistry that will lead to advances in solar fuels development.

Muckerman has also been recognized as a John Simon Guggenheim Fellow and has been a visiting scientist at the University of Oxford, an adjunct associate professor at the Research Institute for Engineering Sciences at Wayne State University, and a visiting lecturer at Columbia University.

To join Muckerman for dinner at an off-site restaurant after the lecture, contact Jean Petterson, [jpetter@bnl.gov](mailto:jpetter@bnl.gov), Ext. 4302.

— Joe Gettler





William Floyd High School's winning Robot Team 287, with mentors

# William Floyd HS Students Build LI Champion Robot (with some help from BNL friends)

William Floyd High School (WFHS) student team, Team 287, with help from teachers Joseph Carpinone and Matt VanHorne and members of BNL's Instrumentation Division, won first place in the 2009 FIRST (For Inspiration and Recognition of Science and Technology) Robotic Competition of Long Island.

The FIRST Robotics Competitions are part of a nationwide effort to team professionals and young people to solve engineering design problems in a competitive way. The students are told what the robot must do with certain specifications, such as the building materials and control system — then, in six weeks, they must have designed and built it and sent it off to the contest location at Hofstra University. This year, operating on a very slick surface, the robot had to be able to pick up circular objects, then chase after an opposing robot and throw the object into the trailer behind it. The winning robot alliance is the team with the most scored points in their opponent's trailers.

Said Jack Fried, an engineer in Instrumentation, who for many years has worked with WFHS students to build their annual FIRST entry, "The idea of this contest is not only for the students to learn engineering by building a robot, but also to learn to work with professional engineers, scientists, and machinists. Each team is sponsored by different organizations, such as NASA and Motorola — and in our part of the world, BNL."

This year, outside funding was short, and the students themselves earned the money to enter the competition. Patchogue-Medford High School, another FIRST competitor, shared their facilities where the robots could be built.

Said Carpinone, "Our school is extremely grateful for Patchogue-Medford's generosity, which was what made it possible for us to complete our robot within the given time restraints, special thanks to Kevin Ray, the mentor of team 329."

In making the robot, Fried, with some help from machinist Bill King, also of Instrumentation, worked with the students in specialized areas of effort.

"I advised and helped them mostly with the electrical and wiring needs, and Bill assisted with the machining end," said Fried. "It was an incredibly hectic six weeks to get it finished, but it definitely was interesting."

On the day of the contest, students from about 50 Long Island high schools were present to compete with their robots.

"The energy in that room would send chills down your spine," recalled King. "It was very exciting, very intense. All the students had worked very hard to get to this point, and when our team turned out to be the winners, it was a great moment."

"I have been in many competitions throughout my life, but never finished on top," added Carpinone. "It was a great feeling, seeing all the kids coming together as a team and bringing home the victory."

A few excerpts from an essay on the WFHS robotics by a team member give a flavor of this program's impact:

*"... Our team, Team 287, has an outstanding level of enthusiasm and has won the Team Spirit award at SBPLI Long Island Competition for the past three years. Robotics gives the true impact of being on a team without needing to be athletic to participate. We welcome all new members with open arms and find their niche, something that they will excel at while contributing to the team as a whole. ...*

*Team 287 has made it their primary goal to spread the message and ideals of FIRST robotics. We always open ourselves up for questions among younger students about the program, and helped with our Middle School's fledgling FIRST Lego League program. FIRST Robotics has opened many doors for people who are interested in the fields of technology, engineering, and electronics. Members have a better understanding of how machinery and technology operate and impact our everyday lives. ...*

*Our team has always cooperated and formed a strong partnership with our sponsor, Brookhaven National Lab. The Lab has helped us build and program our robots since the beginning of our school robotics. ... This year, the Instrumentation Division was very helpful with the programming aspect, and some machined bushings that made our robot come to life. Also, Team 329 [Patchogue-Medford High School] graciously stepped in and allowed us to use their facilities. At the SBPLI Long Island Competition on, they have cheered alongside us in the stands. We are extremely thankful for their display of gracious professionalism, and assure that if they or any team ever need our assistance, we will assist them as we have been helped in a tough time."*

The next excitement will be in Atlanta, Georgia, on April 15 – 17, when the 300+ regional champions — including some who compete from abroad — will compete for the final international championship. WFHS will be sending 16 team members to join in the fray. The Bulletin wishes our local champs the best of luck. — Liz Seubert

## Comments Requested: Vending Machine Survey

An online survey will be opened from April 10 to 24 for comments to be entered regarding the service provided by vending machines on site. Ruth Comas, Conference Support Supervisor, particularly asks that as many people as possible complete the survey as it can be used to improve services. To participate in the survey, go to <http://intranet.bnl.gov/survey/vending/>.

# High School Students Come to Grips With High Energy Physics Research

On March 26 and 27, students from six local high schools: William Floyd, Shoreham-Wading River, Farmingdale, Sachem East, Smithtown East, and Ward Melville, came to BNL to experience research with particle physicist Helio Takai of the Physics Department. They were among more than 6,000 high school students from around the world who participated in the annual international Hands-on Particle Physics Masterclasses. In this program, now involving 23 countries, particle physicist mentors show the students how to use data gathered by the large particle collider experiments at CERN, the European Center for Nuclear Research, to unravel hidden secrets of high energy physics.

At BNL, Takai showed the students how to analyze the collisions of elementary particles racing through a 27-kilometer-circumference accelerator at close to the speed of light. The students used computer programs to analyze the data from the collisions, then, via videoconference, they compared and discussed their results with participants in other centers — learning to act as actual particle physicists do in international collaborations. During the first session at BNL on March 26, juniors participated in a video conference with Fermi National Accelerator Laboratory to compare results of their analysis with results produced by other American schools. The next day, during a videoconference with CERN, seniors compared their



Helio Takai with students

results with results from schools in European countries.

"This is the fourth year of the Masterclasses, and more students come each year," said Takai. "Our first year, we only had six students, and this year, we had 60. It's a great way for students to understand the excitement of science, by doing what particle physicists do — analyze and discuss results with others all over the world. This program pulls high energy physics out of the classroom and into the world of new discoveries. We believe that this is one of the best ways to develop bright young talent for the future."

The event this year was co-organized by Tania Entwistle from Ward-Melville, Gillian Winters from Smithtown East, and Takai. Earlier, two meetings had been held to prepare the students, one at Smithtown and one at Ward-Melville. Entwistle has pioneered the Masterclass event in the US (see <http://www.symmetrismagazine.org/cms/?pid=1000362>). "This is a wonderful opportunity for

students to peek into the world of science" she said.

As well as students' gaining insight into the international organization of modern research, they learn about the world of subatomic particles through easily understood presentations by the mentors giving the masterclasses. This year's lectures and exercises also covered the Large Hadron Collider, a massive accelerator soon to start operations at CERN.

The Hands-on Particle Physics student research days take place under the central coordination of Michael Kobel, a physics professor at the University of Dresden, in close cooperation with the European Particle Physics Outreach Group and with the support of the Helmholtz Alliance "Physics at the Terascale" and the German Federal Ministry of Education & Research, BMBF. — Liz Seubert **Note:** A flavor of this year's classes at BNL was captured by Lab Videographer Alex Reben. The video is available from the homepage at [http://www.bnl.gov/today/story.asp?ITEM\\_NO=1158](http://www.bnl.gov/today/story.asp?ITEM_NO=1158).

## Water Mains to Be Flushed Next Week, 4/13-17

To improve the quality of water delivered, the Energy & Utilities Division water treatment engineers will flush the Lab's water mains from Monday, May 12, through Friday, May 16, as follows:

- Monday, 4/13: Rutherford Dr., Lawrence Dr., & south of Bldg. 490
- Tuesday, 4/14: Upton Rd. and the apartment area
- Wednesday, 4/15: Cornell Ave. and its cross streets
- Thursday, 4/16: Brookhaven Ave.
- Friday, 4/17: Bell Ave.

During and after water-main flushing, run your water before using it, perhaps for 5 to 10 minutes until the water runs clear. If a "rusty" water problem persists beyond the hydrant-flushing schedule, please call the Maintenance Management Office, Ext. 2468.

Laundry Note: To make sure that discolored water is not used for washing clothes, the laundries in the apartment area and Curie and Cavendish Houses will be closed at 8 a.m. on Tuesday, 4/14, and reopen on Wednesday, 4/15, at 10 a.m.

**NNDC from pg. 1**  
accessed website at the Lab, aside from the BNL home page. In 2006, the Center reached an important milestone of "1 million plus" Web database retrievals. In FY2008 this number approached two million.

## Past Into Present

The NNDC has provided more than a half-century of data and expertise to the world community, tracing its roots back to 1952, when the name Brookhaven Neutron Cross Section Compilation Group was adopted for a group in BNL's Physics Department. This group published the first edition of the reference book BNL-325 (Neutron Cross Sections) in 1955. The group's name was changed to the Sigma Center in 1961, and it was moved to the Reactor Physics Division of the Nuclear Engineering Department. It became the National Neutron Cross Section Center in 1967 and finally NNDC in 1977, when it was given the extra responsibility for nuclear structure and decay data. The NNDC's current staff size is

14, including eight Ph.D.s and two post-docs. The group includes scientific, professional, and support staff. In addition, NNDC normally hosts several regular guest scientists and short-term visiting scientists.

Herman said, "We have redone all of our web services, and information is now easier to retrieve, more understandable, and more attractive due to extended plotting capabilities. We are doing our best to strengthen our link with user communities. The grand vision that I have is that in ten years, we will have a unification of reaction and structure data and capability of simultaneous evaluation of all materials in the reaction library ENDF/B. The focal point will be quantification of data uncertainties along with their correlations referred together as covariances."

Herman served as a consultant at Los Alamos National Laboratory, and has also worked at the National Institute for Energy & Environment in Bologna, Italy; the National Institute for Nuclear Physics in Mesina, Italy; and the Institute of Nu-

clear Research in Warsaw, Poland. He received his Master of physics degree from the University of Warsaw and his Ph.D. in nuclear physics from the Institute of Nuclear Research in Warsaw.

Said Horak, "I am very pleased that Mike has accepted the appointment as head of the NNDC. His international reputation in the nuclear data field will greatly enhance our ability to serve our users' needs through expansion of the NNDC's services. I believe he is an excellent successor to Dr. Oblozinsky and will carry on Pavel's programs for renewal of the NNDC staff."

Oblozinsky's future includes returning to part-time work at the Slovak Academy of Sciences in Bratislava, just across the Danube River from Vienna, where his two sons live. Unlike during the Cold War days of his youth, he and his wife Ludmila will now find it easy to cross over the border to visit twin grandsons expected in May.

"It's like a miracle to us," he said. — Kay Cordtz





Joseph Rubino 03410309

The 2009 BREA Luncheon Committee: (standing, from left) Co-chair Flo O’Brien, Myron Strongin, Dave Cox, Co-chair Alyce Daly, Arnie Peskin, and Ronnie Evans. Seated are Ena-Mae Franz and Graham Campbell. Missing from the picture are: Carol Kramer, Ken Mohring, Harriet Martin, and Martine O’Connor.

BREA Get-Together Luncheon, 6/4 Meet — Greet — Eat!

That date is coming around again — the date for the Brookhaven Retired Employees Association (BREA) annual get-together luncheon, to be held this year on Thursday, June 4, at noon, at the Bellport Country Club. The festivities will start with a half-hour of *hors d’oeuvres*, followed by a four-course lunch with a choice of entrées, dessert, coffee or tea, and unlimited beer, wine and soda, all at \$35. RSVP no later than May 29.

At their last meeting, on March 11, the BREA Luncheon Committee members completed the preparations for a most enjoyable occasion. The best part, they agree, will be the chance to greet old friends, renew past acquaintances, and form new and warm memories.

Say Committee Co-Chairs Flo O’Brien and Alyce Daly, “We will also remember those who are not in attendance, for any reason. As you talk to your old and new friends, be sure to remind them to reserve the June 4 date. If they are not living on Long Island, suggest that they return to visit in time to join us.”

To reserve your place or places, send a letter to BREA, BNL, Bldg. 421, Upton, NY 11973-5000. Include a check for \$35 per person (made out to BREA) and include your: name, mailing address, telephone number and e-mail (if applicable), spouse/guest name(s) and a description of any special assistance or transportation that you might need. For more information, call Flo O’Brien, 631-209-0704, and see [www.brea.bnl.gov](http://www.brea.bnl.gov).

Fitness Walk, 4/13, Golf Clinic, 4/14

BNL’s Health Promotion Program and BERA are sponsoring:

A fitness walk on Monday, 4/13, at noon. Meet in the Berkner parking lot at Cornell Ave. and Johns Hopkins St.

A Golf Clinic on Tuesday, 4/14: Two sessions are scheduled, space is limited. Call Michael Thorn, Ext. 8612, to register.

Small-Business Showcase, 4/28

**Featuring Service-Disabled Veteran-Owned Small Businesses that provide goods, services to the Battelle Family of Labs**

All are invited to attend a one-day showcase for Service-Disabled Veteran-Owned Businesses (SDVOB) that will be held on Tuesday, April 28, in Berkner Hall from 9 to 10:50 a.m. and in the Brookhaven Center from 11 a.m. to 3 p.m. BSA and BNL are hosting this one-day educational conference/showcase to thank and showcase the proven and reliable SDVOB suppliers currently providing goods and services to the Battelle Family of Labs. Potential users of goods and services are particularly requested to meet these selected suppliers, who may be able to meet your current requirements at the Lab.

Upcoming Event for Brookhaven Golfers

The BERA Golf Association is now accepting applications for the 2009 Golf League. New members are welcome. Why not join our outing at the Pine Hills Country Club in Manorville on Friday, 4/17? The cost is \$55, including greens fees, golf cart, and \$10 towards prizes. An 18-hole scramble format will be used. All golfers, not just members, are welcome. See <http://www.bnl.gov/bera/activities/golf/> or contact Jeff Williams, Ext. 5587 or [jwilliams@bnl.gov](mailto:jwilliams@bnl.gov).

BERA News, Trips, Fitness Classes

The Pool will be closed for maintenance until Monday, April 13.

**Clearwater Festival Hudson River:** Saturday, June 20. Leave B’haven Center at 9 a.m., leave park at 5 p.m. \$40/adult, \$10/ child (ages 12 and under).

**Cirque Du Soliel Kooza:** Saturday, May 9, 4 p.m. show. \$80/person (adults and children). Leave B’haven Center at 1:30 p.m.

**Intrepid Sea, Air & Space Museum.** Saturday, May 23. \$40 each. Leave B’haven Center at 8 a.m., leave museum at 4:30 p.m.

New Fitness Class Schedules

Advance registration is required for the classes listed below. Make checks payable to BERA and mail to: Recreation Office, Bldg. 400.

**Aqua Aerobics:** 8-week session, \$20/one class/wk, \$40/two /wk, Tues. & Thurs.: 4/28 – 6/18, 5:30 – 6:30 p.m. (Bldg. 478)

**Jazzercise:** 10-week session, \$110 for two classes/wk\* Tues. & Thurs.: 4/7 – 6/18\*\*, noon – 1 p.m. (Bldg. 317)

**Pilates:** 9-week session, \$75/one class/wk (Note, correction from last week, which was inadvertently posted as \$65), \$90/two (Bldg. 317). Mon.: 4/13–6/15\*\*, 12:15 – 1:15 p.m. & 5:15 – 6:15 p.m. and Wed: 4/1 – 6/3\*\*, 5:15 – 6:15 p.m.

\* Can use Holbrook & Wading River locations in addition to on-site classes  
\*\* No classes will be held during Memorial week

Research Library Will Celebrate Library Week Workshops, Live Demos, Open House, 4/13 and 17

In celebration of National Library Week, the Research Library staff is pleased to invite BNL staff and visitors to an Open House on Monday, 4/13 and Friday, 4/17, at the Research Library, Bldg. 477. The following special events of interest are also scheduled:

**Tuesday, 4/14**  
*11 a.m. – noon* Web of Science, Research Library, Bldg. 477  
*1:30 – 3 p.m.* Web of Science & EndNote Web, Biology Seminar Room, Bldg. 463

**Wednesday, 4/15**  
*12:15 – 1 p.m.* Springer Publications, Berkner Hall Room D  
Bring your lunch, we’ll have cookies!

**Thursday, 4/16**  
*1:30 – 3 p.m.* CAS SciFinder, Chemistry Bldg. 555, Room 300  
Registration is required. Call Ext. 7761.

Refreshments will be offered during the workshops. For more information, call the Research Library, Ext. 7761 or 3483.

Take Our Children to Work Day, 4/23

“Take Our Children to Work Day” for Lab employees’ children or grandchildren of ages 10 to 15 will be held on Thursday, April 23. The day will start at 8:30 a.m. and finish at 5 p.m. On-line registration is available on the Human Resources homepage. Click on “Children’s Day Registration Form” and follow the prompts. For more information or to get a paper registration form, call Liz Gilbert, Ext. 2315.

BSA Noon Recital, 4/15  
Stony Brook Opera: ‘Così fan tutte’

A semi-staged preview of the full production of *Così fan tutte* by Mozart will be performed at Berkner Hall on Wednesday, April 15, as the next BSA Noon Recital. *Così fan tutte*, 1790, was Mozart’s third and final collaboration with the celebrated Italian librettist Lorenzo da Ponte and is one of the most popular and most frequently performed operas in the standard repertory. David Lawton and conductor Timothy Long will present the preview with singers, translations and plot description. The full opera will be performed at Stony Brook University’s Staller Center at 8 p.m. on April 17.

Sponsored by Brookhaven Science Associates, the managers of BNL, noon recitals are free and open to the public. Visitors to the Lab of 16 and over must carry a photo ID.

TIAA-CREF One-on-One Retirement Counseling

A TIAA-CREF consultant will visit BNL on Thursday, April 23, and Wednesday, April 29, to answer employees’ questions about financial matters. The consultant will help you: understand the importance of protecting your assets against inflation, find the right allocation mix, learn about TIAA-CREF retirement income flexibility, and compare lifetime income vs. cash withdrawal options. For an appointment, call 1-800-732-8353.

Meditation, Talk: Achieving Peace, 4/24

On Friday, April 24, Dayamrita Chaitanya, a disciple of Mata Amritanandamayi, or Amma, will give a talk on “How We Can Achieve Peace” and lead a group meditation, 5-6:15 p.m. in the Recreation Hall. The talk will be preceded at 4 p.m. by an informal social gathering with refreshments, and followed, 6:30-7:30 p.m., by meditation, prayers, and chants for peace. Sponsored by BERA, the Asian Pacific American Association, and the Indo American Association Yoga Club, the event is free and open to the public. Visitors to the Lab age 16 and older must bring a photo ID.

Amma is widely regarded as one of the world’s foremost humanitarian leaders. Dedicated to alleviating suffering through personal outreach, she has won international recognition and awards, including the 2002 United Nations Gandhi-King Award for Non-Violence. She now helps those in need through a network of charitable organizations.

Dayamrita is one of Amma’s senior disciples who has helped spread her teachings of love and compassion for 25 years. For the past 15 years, he has been manager of Amma’s activities in the U.S., Canada, and Latin America.

For more information, call 631 344-2206, or see: <http://www.ammmany.org/events-dayamrita-090219.php>.

Softball Players Wanted

The BNL softball season will start during the first week of May. At BNL, two family-friendly leagues are ready to welcome any BERA member older than 18: the Employees League, which plays by the Seniors Rules; and the Mixed League, which plays by the mixed league rules. We are always looking for new players of any caliber, from seasoned players to never played before. If you are interested in playing, contact Jim Durnan, Ext. 5993.

New Series Ballroom Dance Lessons Starts 4/15

Three new six-week sessions of weekly ballroom dance lessons, sponsored by the BNL Ballroom Dance Club and given by instructor Giny Rae at a cost of \$30 per person for each session, will start on Wednesday, April 15. The new schedule is as follows: Beginner East Coast Swing lessons from 5:15 to 6:15 p.m.; Intermediate Rhumba lessons from 6:15 to 7:15 p.m.; Intermediate Cha-Cha from 7:15 to 8:15 p.m.

Classes and practice sessions are held in the North Ballroom of the Brookhaven Center. Lessons are open to all BERA members: BNL employees, retirees, official BNL visitors and their immediate families (spouse and children). Each BERA member may bring a partner, but a partner is not necessary to participate.

For more information contact: Donna Grabowski, Ext. 2720; Vinita Ghosh, Ext. 6226; Gail Donoghue, Ext. 2838; or Kathleen Tuohy, Ext. 3845.

CALENDAR

Today, Friday, 4/10

**\*Guitar/Harmonica Blues Concert**  
8 p.m. Brookhaven Center. Acoustic duo Paul Rishell and Annie Raines will perform country blues. Tickets \$15 in advance, \$20 at the door. See pg. 4.

**Saturday, 4/11**

**\*Two Workshops: Guitar, Harmonica**  
2 p.m. Brookhaven Center. Acoustic duo Paul Rishell and Annie Raines offer workshops. \$40. Reserve through [www.ticketweb.com](http://www.ticketweb.com). See pg. 4.

— WEEK OF 4/13 —

Monday, 4/13

**\*BNL Research Library Open House**  
9 a.m.-4:30 p.m. Research Library, Bldg. 477. Celebrate National Library Week See above, left.

**\*Fitness Walk: All Are Welcome**  
Noon. Berkner Hall parking lot at Cornell Ave. & Johns Hopkins St. See left.

**Tuesday, 4/14**

**\*Research Library Workshops**  
11 a.m.-noon and 1:30-3 p.m. Research Library and Bldg. 463. See notice above, left.

**Wednesday, 4/15**

**\*BSA Noon Recital, SBU Opera**  
Noon, Berkner Hall. Semi-staged preview of *Così fan tutte* by Mozart with singers, translations, plot description. See left.

**\*Research Library Workshop**  
12:15-1 p.m. Berkner Hall, Room D. See notice above, left.

**\*448th Brookhaven Lecture**  
4 p.m. Berkner Hall. James Muckerman, Chemistry Department, on “New Chemistry for Artificial Photosynthesis: A Theoretical Perspective.” See story, pg. 1.

**Sunday, 4/19**

**Earth Week Starts**  
**BNL Booth at Riverhead Event**  
10 a.m.-4 p.m. Indian Point County Park, R’head. All are welcome. See notice, pg. 4.

— WEEK OF 4/20 —

Mon.-Fri, 4/20-24

**\*BNL Earth Week Celebrations**  
See detailed schedule of talks, events, pg. 4.

**Wednesday, 4/22**

**449th Brookhaven Lecture and 2009 Earth Day Lecture**  
Noon. Berkner Hall. Talk on “Global Change and the Terrestrial Biosphere” by Alistair Rogers, Environmental Sciences Department. All are welcome to this free public talk. (Note, unusual time.) Visitors to the Lab of 16 and older must carry a photo ID.

**Thursday, 4/23**

**\*Take Our Children to Work Day**  
On-line registration is on the Human Resources homepage, or call Liz Gilbert, Ext. 2315. See notice above, left.

— WEEK OF 4/27 —

Monday, 4/27

**IBEW Meeting**  
6 p.m. Centereach Knights of Columbus Hall, 41 Horseblock Rd., Centereach. 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.

Arrivals & Departures

— Arrivals —

Yoshitaka Kawashima .....NSLS-II  
Ming Lu ..... CFN

— Departures —

Ana Akrap ..... CMP&MS  
Craig Diaz .....Lab Protection  
Eleanor Hughes .....Dir.’s Office  
Anand Saxena .....Biology



## Classified Advertisements

To apply for a position, go to [www.bnl.gov](http://www.bnl.gov). Select "Job Opportunities," then "Search Job List."

**LABORATORY RECRUITMENT** - Opportunities for Laboratory Employees

**ELECTRICAL SUPERVISOR (T-5)** – Requires a minimum of ten years' experience and knowledge within the electrical trade pertaining to industrial, experimental, and residential facilities. Previous supervisory experience desirable; experience and knowledge of MS Word, Excel, Outlook and Maximo programs is preferred; as is OSHA construction safety training. Will be responsible for supervision of electrical and multi-trade work effort in the Maintenance and Fabrication Division, including work assignments, scheduling, employee training, obtaining material, tools, and supplies, performance evaluation, attendance monitoring, grievance handling and technical direction. Will maintain records, coordinate work with other supervisors and provide technical assistance and information to customers as required. Reports to the General Supervisor of Electrical Trades, Maintenance and Fabrication Division. Apply to Job ID #14816.

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

**X-RAY MIRROR METROLOGY/ASSOCIATE PHYSICIST (S-2)/PHYSICIST (S-3)** – National Synchrotron Light Source II (NSLS-II) is seeking an experienced physicist to lead the effort in the design, installation, commissioning, and operation of a state-of-the-art x-ray mirror metrology laboratory. The laboratory will consist of a broad range of mirror metrology equipment including a long trace profiler and interferometry-based instruments. Will work closely with beamline scientists and engineers. Requires a PhD in physics or related field, plus at least five years of experience in synchrotron x-ray optics metrology designs and applications and excellent in-depth knowledge and practical experience in construction and operation of a wide range of x-ray optical metrology instrumentation. Must also possess excellent written and oral communications skills and be able to interact effectively with a diverse group of scientists, engineers, and technical staff. Report to the NSLS-II Experimental Facilities Division Director. National Synchrotron Light Source II. Apply to Job ID #14817.

**RESEARCH ENGINEER I (P-9)** – Requires a BSME with a minimum ten years' experience with stress and thermal analysis, mechanical design, and manufacturing techniques. CAD/CAE Computer skills with ANSYS, Mechanical, Pro-E, AutoCad, or equivalent programs are required. Excellent written and verbal communication and good interpersonal skills are required to interact with a diverse group of engineers, scientists, and technical staff. Familiarity with systems and components used with particle accelerators such as vacuum systems, high voltage/high current equipment, optical equipment, remote drives, and/or magnets is desirable. Will assist in design, analysis, component selection, specification, construction, testing, and commissioning of components and systems for upgrades to the Relativistic Heavy Ion Collider. This will include system design, computer analysis and modeling, evaluation of prototypes, construction and installation of equipment, acceptance tests, commissioning and operations, upgrades, and system improvements. Experience with particle accelerators is a plus but not necessary. A desire to do creative engineering to develop and build unique equipment is required. Will report to the C-AD Mechanical Systems Head. Collider-Accelerator Department. ERAP ELIGIBLE \$1,000. Apply to Job ID #14811.

**SUPERVISOR, CONSTRUCTION INSPECTION - MECHANICAL (T-6)** – Requires an AAS in mechanical construction technology or equivalent training and a minimum ten years of experience in the construction of mechanical systems involving HVAC, plumbing, pipe fitting and fire protection. Familiarity with architectural, civil and electrical systems construction will help ensure success. Will be responsible for inspecting and coordinating all phases of mechanical systems construction work and functioning as liaison with Laboratory staff in coordinating daily construction effort. Specific duties include the monitoring, inspection, coordinating and accepting the workmanship, materials and equipment of assigned fixed priced construction projects, assuring that all work called for by the contract documents or applicable codes, have been satisfactorily completed. Modernization Project Office. Apply to Job ID# 14812.

### Motor Vehicles

08 WEST TRAILER – encl. util. trailer, side dr., back ramp, bought new, never used. \$3,500. 834-6637 or kawibp@hotmail.com.  
06 FORD MUSTANG GT – 25K mi. red/black leather, a/t, all opts, showroom cond. \$18,500 neg. 258-5809 or piper@bnl.gov.  
05 FLEETWOOD PROWLER – 32' Travel Trailer – qud bunks, slps 10, Qu-sz bed, bath w/tub, AC/heat, more. \$15,500. 807-9916.  
05 HONDA SHADOW SPIRIT – 750, wd/shield, saddle bags, chrome upgrds, just svcd, pics. \$3,500. Ext. 7132, asweet@bnl.gov.  
02 FORD WINDSTAR – 105K mi. p/w,p/l,a/c,dual sliding drs, exel cond, seats 7. \$4,200 neg. Joseph, Ext. 2350, 987-4281.

02 HONDA CIVIC LX – 92K mi. a/t, c/c, p/w, p/l, 2dr, 4cyl, am/fm/cd, warr., dealer maint. \$5,500 neg. Ext. 2363, ogekach@bnl.gov.  
02 FORD TAURUS – 35K mi. wagon, silver, like-new cond, non-smoker. \$5,700. 744-1706.  
99 KAWI VULCAN CLASSIC – 2-tone, wndshld, sdle-bags, rec. tne-up, must sell. \$3,500 neg. 834-6637, kawibp@hotmail.com.  
97 TOYOTA CAMRY LE – 110 mi. 4 cyl, lthr, clean, well maint, service records. \$3,100. Steve Thompson, 758-7002.  
95 TOYOTA CAMRY LE – 171K mi. m/roof, rec. oil ch/insp, much new, incl tires. Some work neded. \$500 neg. 204-7661.

### Boats & Marine Supplies

23' PEARSON P23K – 1979, masthead rigged sloop, orig gelcoat, 3 sails, 4' draft, lead fin keel, galley, head, \$2,400. Ext. 2788.  
POLAR CENTER CONSOLE – 19', 115 merc 2 strk salt water ed.'07 EZ roller trailer, extras,v/clean, \$13,000. 327-0106.

### Furnishings & Appliances

ARMOIRE-MEDIA CNTR, 500, TABLE 300 – pics at <http://walmart.ooodle.com/post/?userView=1&posttype=1>. Ext. 2051.  
CRIB, CHANGING TABLE – solid lt oak sleigh crib converts to toddler bed, changtbl/dresser, ask/\$300 for both. Ext. 3924.  
LIVING ROOM FURNITURE – Dresser w/6 drawers & 2 doors; French Provincial; good cond; 65"L x 34"H x 20"W; \$150; 476-0627.  
REFRIGERATOR – 18' Srs Kenmore, white, bttm freezer w/ice maker, like new, only 2 yrs old, orig/\$900, ask/\$400, 475-6548.  
ROLLING KITCHEN CART – white tile top over white/natural wood cabinet, 24wx-18dx33h, \$40. 878-9020.  
SOFA TABLE – light wood. 56"L x 17"W x 29"H. Picture available. Lynda or Michael, Ext. 7235, 286-1018 or fitz@bnl.gov.

### Audio, Video & Computers

IMAC COMPUTER – G3 500 MHz, all in one, incl. MS Offc suite, more, wifi card, keybrd, mouse, \$300/obo. 821-3320.  
SPEAKERS – Infinity Center Channel/\$50, main spkrs/\$150; Bose/\$50; Pioneer Theater sym. receiver/\$150, all excel. 878-7655.  
SUBWOOFER – JBL Model PSW1000 100 watt, 120v pwrd, excl. cond., black wd case, \$75. Kenneth, Ext. 8463, 878-7655.

### Sports, Hobbies & Pets

1983 COLEMAN POP-UP TRAILER – Sleeps 6, sink, stove, storage, nds 2 tires, 1600 lbs., gd cond. \$1000/obo. 878-2425.  
BICYCLE – Girls 10 spd., 26", ask \$25. Ext. 7235, 286-1018 or fitz@bnl.gov.  
CELLO – excel. cond. w/case, \$4500. Stephen, Ext. 4475 or plate@bnl.gov.  
WII SPORTS SYSTEM – Brand new in box, never opened, pd/\$271.55, ask/\$255. Pat, Ext. 3670 or patricia@bnl.gov.

### Tools, House & Garden

PUMP & SAND FILTER – 1 HP Hayward, for app sys. ask/\$275, like new. 298-4121.  
WOOD STOVE – Cawley-LeMay #400; 300lbs; 35"Hx18"Wx36"D; fire bx 13"Hx 10.5"Hx20"D; upickup, \$200. Ext. 2490.

### Miscellaneous

BABY ITEMS – Jumpeeroo, Swing, Bounce Seat, Boppy Pillow, play mat, & toys, 0-12 mos., all excel. cond. Wendy, Ext. 3924.  
LEGO SETS, USED – Viking Fortress, 1019 pcs, \$50; or Orient Expedition Adventures, 732 pcs, \$37; more. 929-0043.  
PLAYMOBIL SETS – E.g. Knights castle, Dragon, attack tower etc. \$60 Police Station, Boat etc. \$50, more. 929-0043.  
SUNLINE TRAILER – '96, 24', 5 new tires/mattress, elec. jack. extras, all incl., sleeps 4, outdr. fun. \$5500 obo. 924-5187.  
WEDDING DRESS – beautiful, brand new, size 16, pd/\$800, ask/\$500, pics avail. upon request. 846-8419.

### Happenings

CASINO NIGHT – Fund raiser for Kim Haeg, Quadraplegic, on ventilator @ Raphael Vineyards in Peconic, May 8, 7-11 pm. Contact Lorraine Haeg @ 765-6856. Dennis, Ext. 4028.  
DON QUIJOTE RESTAURANT – Yvette sings and Bob plays piano/guitar, Sat., 4/11, 8pm-11pm, Miller Place by Friendly's Don Quijote Rest. Yvette, Ext. 5591.  
HALLOCK BAY KAYAK RACE 2009 – Help kick off paddling season, fundraiser for Southold Indian Museum, 6/13. Details: Southoldindianmuseum.org. Andrew, ajjlace@msn.com.

## Rideshare Incentives for April

A Long Island Transportation Management (LITM) grant permits the Lab to purchase \$20 monthly gas cards to be distributed to employees involved in carpools. To be eligible, participants must carpool to and from work a minimum of 12 days each month, and must record their monthly rideshare trips on the NuRide website at <http://www.nuride.com/nuride/main/main.jsp>.

A special short-term rideshare incentive is offered to boost the number of ridesharers. A \$20 gas card will be awarded to the first 100 BNL, DOE, and contractor employees who register as carpools on the NuRide website before May 1. An additional \$20 gas card will be awarded to individuals who form new carpools or join existing carpools and record at least six roundtrip rideshare trips on NuRide by April 30. For more information, including incentives for vanpoolers, see Monday Memo of April 6, 2009 (<http://intranet.bnl.gov/memo/>) or contact Jeff Williams, [jwilliams@bnl.gov](mailto:jwilliams@bnl.gov), Ext. 5587.

## Wanted

ADOPT-A-PLATOON – Monetary donations gratefully accepted towards mailing shipments to military overseas. Thank you. Joanne, Ext. 8481 or jrula@bnl.gov.  
FIREARMS – old/new, fair \$\$\$ pd. Joe, Ext. 3783, 487-1479.

## For Rent

NAPLES, FL – 2br/2ba furn. condo in gated golf comm., avail. 04/09-12/09, special off-season rate of. \$1,200/mo. Denice, 523-7870 or dlara@optonline.net.

SPRING HILL, FL – Gulf Coast Ranch, fly SW direct. Screen/in-grnd pool, fruit trees, SW architecture, 3BRM, 2ba, dr, f/p, 2x gar, photos. \$500/wk neg. 344-5537.

BROOKHAVEN HAMLET – For BNL Employees/Guests only, rm for rent, quiet, charming, use of house/cable/patio yd, TV/kit & w/d. \$485/mo. Sidney, 286-4028.

E. PATCHOGUE – 1 bdrm, liv./kit combo, priv. ent., waterview, no smkg/pets, v/nice, quiet area, incl. all. \$950/mo. 758-1919.

MASTIC – sunny 1 bdrm 2nd flr apt, priv. ent., lg. rms, furn., incl. heat, elect/water/cable/wireless int., min. to Lab/shopping/beaches. \$1,150/mo. Victoria, Ext. 2012.

MASTIC BEACH – 1 bdrm apt, full bath, l/r, kit., priv. ent. & drway, no smkg/pets, all incl. except cable, sec/refs required. \$950/mo. 281-4559.

MILLER PLACE – Clean 1BR apt, sep entr,EIK,Full Bath, parking, own thermostat, \$1,100/mo. 807-7174.

PORT JEFF ST., NY – spacious 1 bdrm, l/r, eik, full bath grd flr w/ priv ent/drway, nr. hosp/univ/shops, no smkg/ pets, util. incl. \$1,350/mo. 559-1931.

PORT JEFF ST – 3 bdrm, 1.5 bath, l/r, d/r, eik, fin. bsmt w/possible 4th bdrm, w/d, d/w, gas heat, young families on block, no smkg. \$1,800/mo. 413-5012.

ROCKY POINT – 1 bdrm house, .5 bsmt, oil heat, no smkg/pets. \$1,100/mo. 744-8919.

ROCKY POINT – 1 bdrm upper unit in Co-op, kit, 1 bath, l/r, balcony, nr stores, laundry rm on premises, prk spot, no smkg/pets, cac. incl. gas/water. \$1,150/mo. 806-5965.

SELDEN – cul de sac, studio apt., full kit/bath, priv. ent., patio, cathel ceiling, skylights, ceiling fan, no smkg/pets, 1 mo. sec. \$900/mo. 698-3514.

SHIRLEY – lg bright 1 br bsmt apt, sep ent. close to beaches/parks/hwys/LIRR, v/nice, 1 mo rent + 1 sec, no smkg/pets, suitable for one. \$725/mo. Ext. 3846.

SHIRLEY – 1 rm studio, furn, stove, kitnet, full bath, sep ent, cable/elect/int/incl, 1 mo. sec, 5min to stores/beach/LIRR, 12mi to Lab, no smkg/pets. \$650/mo. 804-8609.

SHOREHAM – Share house w/professional, partial furn. bdrms, 7 mi. to BNL, int/tv, all incl., no smkg/pets, single preferred, 516-380-2650/cell. \$650/mo. 744-3543.

YAPHANK – priv. home/ent., fully furn. studio for single, 4 mi. to Lab. cable/int/util. incl., \$750/mo. \$750/mo. 516-205-6712.

## For Sale

FLANDERS – 3 bdrm., water front, excel., new baths, 40' floating dock, nature preser., a/c, nat gas, Peconic Bay, Shmptn. town, 20 mi. to Lab. \$599,000 neg. Ext. 3078.

MANORVILLE – 3 bdrm. T/house, 1900 sq ft., 2 bath, 2 car gar, f/p, hw flrs, ceiling fans, slate patio facing pond, gated comm., clbhse, pool, more, \$387,500 neg. 874-3400.

MILLER PLACE – 3 bed, 2 bath, ranch, w/legal 1-bed apt. Bsmt w/wet bar, excrse rm, work shp, gas ht, hdwd flrs, deck overlooks pond in yd, reduced: \$379,000 neg. 872-9268.

PORT JEFF ST – w/2x gar. fen. lot, hdwd. flr, new baths/plumbg/heatg shtrck/insul, cent vac, stove, refrig, d/w, w/d., taxes w/Star approx. \$2,500/yr. \$229,000. 682-8684.

SHOREHAM – 4 bdrm., 2.5 bath Col., frml l/r, d/r, den w/fp, fin. bsmt, 12 x 20 deck, igs, new granite counters, SWRSD, much more, \$499,900. Don, Ext. 2253, 821-3320.  
SHOREHAM – Ranch, newly renov., 3 bdrms, bath, l/r, den, wd flrs, kit/granite counters, ss appli, gar, lg yd, fam. neighborhood, SWRSD. \$350,000 neg. 258-4607.

SHOREHAM VILLAGE – spotless custom 3bdrm Ranch, 3ba., rec. renov., 1 acre, borders pkland, wd flrs, pool, screened porch, igs. \$529,900. Leonard, 744-2404.

WESTHAMPTON BEACH – Turnkey Mobile Home, shed, deck, treed lot, 2 mi from Dune Rd & ocean beaches, 1/2 Hr. from BNL. \$45,000 neg. Marty, 874-3478.



## Guitar, Harmonica Concert Tonight, Workshops Offered Tomorrow

Acoustic duo Paul Rishell and Annie Raines will give a country blues concert on the guitar and harmonica, on Friday, April 10, at 8 p.m. at the Brookhaven Center. Sponsored by the BNL Music Club, the concert is open to the public. All visitors to the Lab 16 and older must bring a photo ID. Tickets cost \$15 in advance at the BERA Store until 3 p.m. or \$20 at the door.

In addition to the concert, Rishell will offer an intermediate and advanced guitar workshop and Raines will offer a harmonica workshop on Saturday, April 11, at the Brookhaven Center. Both two-hour workshops will begin at 2 p.m. and each is limited to 10 places. The cost is \$40 per workshop. Check at [www.ticketweb.com](http://www.ticketweb.com).

## BNL Celebrates Earth Week, 4/19-24

Celebrate Earth Week with BNL! For each of the events you participate in, receive a raffle ticket for a door prize of a new bicycle. See also <http://www.bnl.gov/ewms/eday>.

### BNL Booth at Earth Day Celebration, Riverhead

**Sunday, 4/19, 10 a.m. to 4 p.m.**

The Environmental Protection Division will represent the Lab at a booth including a number of popular interactive displays at the Earth Day Celebration, Indian Point County Park, Riverhead. This free event includes interactive exhibits, nature walks, beach grass planting, trail clean-ups, marine life exhibits, live entertainment, and many activities for kids. This is a fun day for all, so bring your family and friends and show your support for BNL and Earth Day. For more information, call Jason Remien, Ext. 3477.

## Environmental Speakers

**Tuesday, 4/21, noon, Berkner Hall: Mark Lembo**

Lembo will talk on "Alternative energy technologies: residential, commercial, and municipal — how to access your needs and attain your goals as a community"

**Wednesday, 4/22, 4 p.m., Berkner Hall: Alistair Rogers**

Rogers, a plant physiologist in the Environmental Sciences Department, will talk on "Global Change and the Terrestrial Biosphere." This Earth Day talk also serves as the 439th Brookhaven Lecture

**Thursday, 4/23, noon, location to be determined: Richard Kidd**

Kidd, Program Manager for the Federal Energy Management Program (FEMP) will discuss FEMP's direction and its future role, federal funding trends, future financing trends, and Earth Day observations

**Thursday, 4/23, 4 p.m., Berkner Hall: Rosemary Wiesner**

Wiesner of Brookhaven Town will promote a "Garbage Free Lunch." Reduce, reuse, recycle. Learn how to pack a healthy, garbage-free lunch

**Friday, 4/24, noon, Berkner Hall: Eric Forsyth**

Forsyth, a retired BNL engineer, will talk on "The Challenges Facing Renewable Energy — Retooling America to eliminate the use of fossil fuel"

## Environmental Displays, Berkner Hall lobby

**Mon. to Fri., 4/20 to 24**

Check out the beautiful photos of BNL wildlife on display and environmental posters created by children from local elementary schools as part of BNL's annual "Your Environment" art contest. For more information, call Karen Ratel, Ext. 3711.

## Environmental Pledge Tree

**Mon. to Wed., 4/20-22, 11:30 a.m. to 1:30 p.m., Berkner Hall lobby**

**Thurs. /Fri., 4/23-24, 11:30 a.m. to 1:30 p.m., Bldg. 400**

Show your support for improving the environment by placing a pledge leaf on the environmental pledge tree. All donations will be forwarded to the Foundation for Ecological Research in the Northeast (FERN), a non-for-profit organization whose mission is to conserve, protect, and enhance habitats in the Northeast through research, education, and dissemination of information. Great giveaways will be available, including tee-shirts; compact fluorescent light bulbs; canvas bags; stainless steel water bottles; more. For more information, call Jason Remien, Ext. 3477.

## BNL Office Swap

**Tues./Wed., 4/21/22, 11:30 a.m. to 1:30 p.m., Berkner Hall lobby**

Clean out your office, conference rooms, and supply closets. Bring unwanted supplies that are in good shape to Berkner, swap for what you need. Nothing to swap? Come anyway, take anything you want to use at the Lab, free. All supplies not swapped will be recycled. For more information, call Francine Donnelly, Ext. 3381

## L. I. Transportation Management/NuRide Sign-Up

**Wed., 4/22, 11:30 a.m. to 2 p.m., Berkner Hall lobby**

Find out how you can cut your commuting costs and make a difference in the environment by reducing air emissions. Sign up for this highly flexible rideshare service, and earn rewards. For more information, call Jeff Williams, Ext. 5587.

## Environmental Vendor Fair

**Wed., 4/22, 11:30 a.m. to 1:30 p.m.**

Learn about "green" products, and conservation. Vendors include LI Greenbelt Trail, LIPA, Brookhaven Town, CLIMB, MSC Supply for Simple Green, Long Island Sound Study, Ocean Janitorial, Home Depot, Sun Stream USA, Melalluca, Mid Island Electric, more. For more information, contact Ruth Comas, Ext. 3545.

## Earth Day Art Poster Awards Ceremony

**Thurs., 4/23, 4 p.m., Berkner Hall**

Awards in BNL's annual "Your Environment" art contest will be presented to local schoolchildren for creating posters on "Sustainability at Work and Home." For more information, call Karen Ratel on Ext. 3711.

## Hybrid Vehicle Display — BNLers, Bring Your Hybrid

**Fri., 4/24, 10 a.m. to 2 p.m.**

See what's new in the world of hybrid vehicles. BNLers are also welcome to bring their own hybrid vehicles to display. To participate, call Jeff Williams, Ext. 5587. Anyone who brings a vehicle will be eligible to win a \$25 gas card. And everyone who attends the display can learn about the benefits of owning an energy efficient vehicle and how to help reduce air emissions while enjoying increased fuel economy. For more information, call Williams, Ext. 5587.