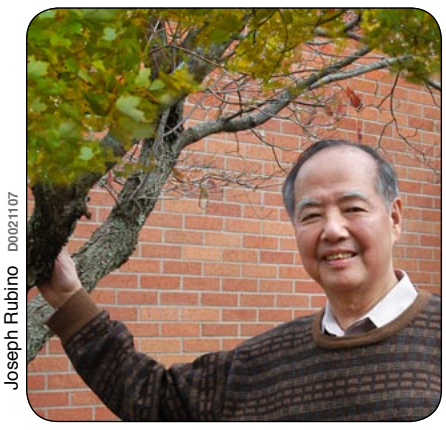
the Bulletin

BROOKHAVEN NATIONAL LABORATORY

Vol. 61 - No. 39 November 9, 2007

Nobel Laureate T.D. Lee Re-examines Parity Violation, Conservation



Joseph Rubino D0021107

An exciting new idea suggesting that parity conservation, rather than violation, may govern the underlying theory was the subject of a special RIKEN seminar given on November 1 by Nobel Prize winner T.D. Lee of Columbia University, former Director of the RIKEN BNL Research Center (RBRC).

The seminar, part of BNL's 60th anniversary year celebrations, also marked the 10th anniversary of RBRC at Brookhaven, and in addition, the 50th anniversary of Lee and C.N. Yang's Nobel Prize. This was awarded for the paper they wrote at BNL entitled "Question of Parity Conservation in Weak Interactions," published in *Physical Review*, 1957.

The rule of parity conservation, which in 1957 had long been considered absolute, means that a reaction or decay of a particle, or its mirror image, are equally likely to happen. A puzzling case involved two particles, tau and theta, then much studied. Current theory assumed that, by the way they decayed, tau and theta must be different particles. However, experiments at BNL's Cosmotron and the Bevatron at Berkeley showed that the lifetimes, scattering behavior, and masses of tau and theta were identical. But the tau would decay into three pions and the theta into two pions, showing that they had opposite parity and were two different particles.

Lee and Yang, guest scientists at BNL for the summer, discussed this problem and eventually concluded that parity conservation might be violated in an interaction involving the weak force and radioactive decay and that the tau and theta were two different decays of the same particle (now known as the charged kaon). They suggested experiments to verify their conclusion. These experiments, including, notably, one by Chien-Shiung Wu at Columbia, immediately proved their point, and the absolute parity conservation rule was exploded.

All the more intriguing, therefore, was the new model outlined on November 1 by Lee that described a new way to view the mixing of the building blocks of matter, on a more fundamental level, possibly restoring the parity conservation rule.

After explaining his model, Lee showed how it might be confirmed by measurements that could be taken in the new Daya Bay experiment in China (see story below) and by finding W and Z particles which spin in the opposite direction from the ordinary particles. These opposite-helicity particles could perhaps be observed in the upcoming experiments at the Large Hadron Collider (LHC) at Geneva, Switzerland, such as ATLAS. Since BNL has strong research teams collaborating in each of these experiments, Lee expected Lab researchers to play a significant role in testing this theory.

During his talk, Lee likened the role of theoretical structures, for example, gauge symmetry and mathematical models such as the one he proposed, to a painting of a harp in a picture, to represent the music being played. In the case of physics, the theoretical structures provide a way to express the new ideas being proposed. As RBRC Director Nicholas Samios remarked in his introduction of Lee, 2007 was a year of anniversaries that included the eightieth birthday of Lee himself, who, fifty years after his prize paper, painted a harp that brought into play exciting new physics, indeed. — Liz Seubert

Note: A full account of the history of Lee and Yang's 1957 conclusions is given in Making Physics, A Biography of Brookhaven National Laboratory, 1946-1972, *by Robert P. Crease.*

Joseph Rubino D0011107

Daya Bay Experiment Groundbreaking

BNL a Host Lab for U.S. Participation

Together with government officials from China and the U.S., members of the Daya Bay Collaboration, which includes BNL as one of the U.S. participating host labs, held a groundbreaking ceremony on October 13 for the international Daya Bay Reactor Neutrino Experiment at the Daya Bay nuclear power facility. Daya Bay is located in Shenzhen in Southern China, about 55 kilometers northeast of Hong Kong. The experiment is poised to discover an as-of-yet unobserved kind of neutrino "oscillation." The oscillation, or transformation, of neutrinos from one type to another is an outstanding mystery concerning the behavior of neutrino particles.

"I believe the Daya Bay Reactor Neutrino Experiment will achieve full success with the efforts and wisdom of the scientists," remarked by Jinpei Cheng (third from left in photo), Chinese Vice Minister of Science &Technology.

BNL has played a pivotal role in neutrino physics, with a Nobel Prize to Lederman, Schwartz and Steinberger for establishing that there are distinct flavors of neutrinos and to Davis for the discovery of neutrinos from the sun, whose deficit led to the realization that neutrino flavors mix. Neutrinos, and their antiparticles, come in three kinds, and in recent years several experiments have determined that the three types can transform, or oscillate, among themselves. Oscillation has profound implications, namely that neutrinos, once thought to be massless, do indeed have

(continued on page 3)

Patricia Dehmer Named Principal Deputy for Science Programs

Roger Stoutenburgh D0610707

Pat Dehmer at Berkner Hall in July 2007, announcing DOE's award of Critical Decision One to the National Synchrotron Light Source II, locating the new facility at BNL.

On October 29, DOE Under Secretary for Science Raymond Orbach announced the appointment of Patricia Dehmer as Principal Deputy for Science Programs in the Office of Science (OS). The OS structure now includes three Deputy Directors — Principal Deputy for Science Programs (who serves as OS Acting Director whenever that position is vacant), Deputy for Resource Management, and Deputy for Operations — who all report to the Director, a political appointee confirmed by the U.S. Senate.

"Dr. Dehmer has been selected from a strong pool of applicants for this new position, and I am delighted that she has accepted my offer," said Orbach. "Dr. Dehmer was recruited in 1995 to the position of Associate Director for Basic Energy Sciences in the Office of Science. In her 12-year tenure in that position, the growth in breadth and sweep of her program was remarkable, with the program budget rising from approximately $600M in FY 1994 to the President's request of $1.5B in FY 2008. During the period that she led Basic Energy Sciences, the world's most powerful spallation neutron source was conceived and built, under budget, ahead of schedule, and with increased scope. She has shepherded the construction of the Linac Coherent Light Source at the Stanford Linear Accelerator Center and the National Synchrotron Light Source II at Brookhaven National Laboratory. She has built the structure and hired the personnel that have made Basic Energy Sciences a powerful element in the nation's scientific portfolio."

BNL Director Sam Aronson noted, "Pat Dehmer has been extremely supportive of Brookhaven Lab and our vision for our future. The new Center for Functional Nanomaterials and the progress of NSLS-II are evidence of her support, which I hope will continue."

Dehmer has named Harriet Kung to take over for her and serve as Acting Associate Director for Basic Energy Sciences.

430th Brookhaven Lecture, 11/28

Stochastic Cooling at RHIC: Brighter Beams, Better Physics

Roger Stoutenburgh D2481007

At the Relativistic Heavy Ion Collider (RHIC), one of the world's premiere physics research facilities, one main goal is to collide the nuclei of gold atoms with enough force to recreate on a tiny scale the hot, dense conditions that existed about 1/100th of a second after the beginning of time. These collisions pack so much energy into a small space that they allow scientists to study the most fundamental constituents of matter — quarks and gluons — in a state of matter that has not existed for some 14 billion years.

The more collisions produced, the more data are available to help researchers understand the forces that caused these subatomic particles to interact and coalesce to form the universe as it is today.

RHIC's current collision rate, known as luminosity, stands at thousands per second. But RHIC physicists want more. One approach to achieving a higher collision rate is known as stochastic cooling. In simple terms, this "cooling" helps keep the gold nuclei that make up RHIC's beams from spreading out. Though this approach has been used in specialized, low energy accelerators, it has never been made to work at high energy or with tightly bunched beams, until now.

By 2006, a stochastic cooling system was installed at RHIC that significantly reduced the energy spread of beams. To learn about this system and plans for installing a system to reduce the angular divergence of the beams next fall, come to the 430th Brookhaven Lecture, "Stochastic Cooling in RHIC, Brighter Beams, Better Physics," to be given by accelerator physicist Mike Blaskiewicz of the Collider-Accelerator Department. The talk, which is free and open to the public, will be held in Berkner Hall at 4 p.m. on Wednesday, November 28.

Mike Blaskiewicz earned his B.S. in physics at the University of Connecticut in 1983, and his Ph.D. in physics at Cornell University in 1990. He joined C-AD in January 1991, became an assistant physicist in 1992, and was named a physicist in 1996. Since then, he has worked on stochastic cooling, RF systems, coherent instabilities and electron cloud effects.

Refreshments will be offered before and after the talk. Those who wish to accompany the lecturer to lunch at a restaurant off site on the day after the lecture, Thursday, November 29, should contact Anna Petway, Ext. 4776, Petway@bnl.gov.

— Karen McNulty Walsh

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.*
- *Events flagged with an asterisk (*) have an accompanying story in this week's Bulletin.*

— EACH WEEK —

Weekdays: Free English for Speakers Of Other Languages Classes
Beginner, Intermediate, Advanced classes. Various times. All are welcome. 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. Instructor: 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

Thursdays: Reiki Healing Class
Noon-1 p.m., Call for location. 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.

Then & Now — Camp Upton and Beyond

Veterans' Day on November 11 is a reminder at BNL that the Lab was once Camp Upton, a U.S. Army training camp during two world wars. Shortly after the United States declared war in April 1917, the Federal government leased or obtained rights to 30 square miles of central Long Island woodland for an induction and training site for the New York City area. The proposed base was named Camp Upton, after Major General Emery Upton, who served in the Civil War and wrote numerous books on U.S. military policies.

Camp Upton required the clearing of over 1,400 acres. Incredibly soon, about 1,700 buildings provided a small city, with a hospital, theaters, lecture halls, store houses, shops, heating plant, railroad yards, stables, a fire department, several YMCA and Knights of Columbus centers, and dormitories. A rail spur was built, connecting Upton to the Long Island Rail Road, on which most of the supplies for construction arrived. The peak population of the camp was about 38,000, double the population of Suffolk County.

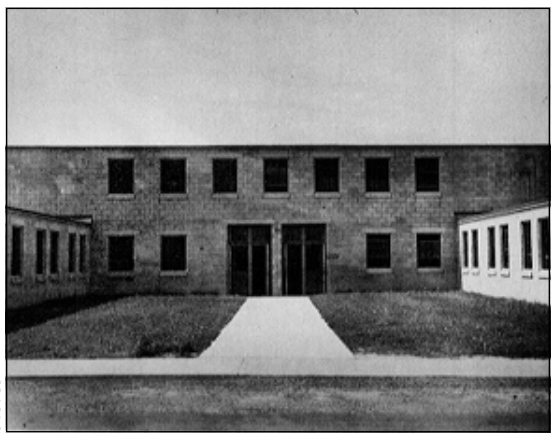
At the camp, the drafted men completed a 16-week training program in infantry combat. From these recruits came the nucleus of the famed 77th Division, recognized for valor at the battle of Argonne Forest, August 1918. One member of the 77th was Sergeant Irving Berlin, who wrote "Yip, Yip Yaphank," a musical based on his life at the camp. The show was produced on Broadway, with Berlin's fellow soldiers filling the cast.

After the war's end in November 1918, the Army deactivated the camp. A public auction was held in August 1921, and by fall, only roads remained.

Today, only a few concrete foundations and networks of trenches used for training are left of the WWI camp. The site remained abandoned and desolate for 12 years. Then, during the Great Depression, the Civilian Conservation Corps was formed to provide jobs for unemployed Americans and restore the nation's natural resources. The Upton site became a reforestation project — still of benefit now from the tall white pine trees around the site, and the miles of firebreak roads. The Brookhaven Center (Bldg. 30) was constructed during this period.

Then, in 1940, the war in Europe and in the Pacific drove a decision for military preparation. Camp Upton was rebuilt as an induction center. Again, recruits entered the camp. Among them were many who were later to work for BNL.

In September 1944, Camp Upton was expanded and converted into a convalescent and rehabilitation hospital for returning wounded veterans, complete with bowling alleys, swimming pools, and tennis courts as recreational therapy. Then, combat in the Pacific and World War II ended, and Camp Upton was declared surplus on June 30, 1945. This time, however, the camp was not stripped; it became the site of BNL. Present-day reminders of WWII Camp Upton include Security Headquarters (Bldg. 50), with its distinctive clock tower, which was the Camp Commanders HQ, and Building 120, an example of WWII barracks.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Roger Stoutenburgh D0071205

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(Top) The Camp Upton Receiving Office (RO), with RO staff gathered for a photo, survived almost unchanged as Bldg 460, now home to the Director's Office.

(MIddle, from left) Wayne Boyd in Native American regalia; Henry and Louise Boyd on their wedding day, 1944; Wayne Boyd in his U.S. Army uniform, about 1969.

(At right) In Berkner lobby today, 11/9, volunteers for the BNL Veterans Association's Adopt-A-Platoon (AAP) committee are selling military logo T-shirts and hats in support of the non-profit AAP organization, which collects supplies to send to deployed soldiers.

Roger Stoutenburgh D0521107

Support Adopt-A-Platoon in Berkner lobby, today, 11/9!

BNL's Boyd Family

Not only buildings, but also, people remind BNLers of the Camp. Many recruits later returned and joined Lab staff. A typical story appears in the Brookhaven Bulletin of May 23, 1986, about Henry Boyd, who was retiring after 38 years at the Lab. Boyd, who was from a Native American tribe, the Chocktaws, in Louisiana, was drafted and sent to Camp Upton in 1943. "We came by train. There was a depot right there . . . The barracks we were housed in then is where Physics and the Tandem are now," Boyd recalled. In training to be a medic as part of a dispensary unit, Boyd met Louise Murray, a young Riverhead woman from a Long Island Native American family, who worked in Medical Supplies. But Boyd soon had to travel away with his unit.

The couple did not lose touch: Boyd returned to Camp Upton in 1944. It was by then a convalescent hospital run by the War Department. Boyd got a job as a furnace operator and repairman, and married Louise. After a year, he left to take a heating course, then returned in 1948 to join the new Lab as a custodian. As the Lab grew, more special services were needed. In 1962, Boyd joined Staff Services, using his experience as a European-style waiter in New Orleans to create a stylish atmosphere that memorably enhanced many BNL conferences, parties, and dinners for years.

The story did not stop there. For about 15 years, a regular assistant at large functions was Wayne Boyd, one of Henry's sons. Wayne had also served in the U.S. Army, 1966-69, becoming a Platoon Sergeant in the 24th Infantry. Again, like several other BNLers whose families are centered in Long Island and who had relatives at Camp Upton, Wayne Boyd decided to join BNL. He took a custodial job with the Plant Engineering Division in 2000.

"I enjoy working at the Lab. It's interesting to meet so many different people," he says. He is also pleased that through the Diversity Office, his own interest in Native American heritage can be brought to the attention of more people. In November 2003, Boyd lent a special ceremonial Native American regalia and costume he owned to be displayed in Berkner Hall. It was so popular that each November, which is Native American Month, the Diversity Office borrows the magnificent costume to display again. This month, it is again being shown in Berkner.

Veterans, Adopt-A-Platoon

One more important link with the past has been established this year: the BNL Veterans Association (BVA) started in March. As part of BVA, the Adopt-A-Platoon (AAP) committee supports a platoon from the national non-profit Adopt-A-Platoon organization in which supplies are collected and sent to deployed soldiers to ensure they get packages from "home."

To help raise funds, AAP members will be in Berkner Lobby today, Friday, 11/9, 11 a.m.-1 p.m. selling military logo T-shirts and hats (see photo above). The Lab community can also support this cause by joining the Veterans' Association and the AAP committee and donating in the boxes located in Bldg. 400 and Berkner Hall. For more information, the BVA website is www.bnl.gov/bera/activities/va/. — Liz Seubert

The Camp Upton story has been abridged from a history by Mark Davis, Environmental & Waste Management Division, Lab Cultural Resource Coordinator and expert on Camp Upton site history. See www.bnl.gov/bnlweb/history/resources/.

BWIS Wine & Cheese Party, 11/29

All BNLers are invited to the Brookhaven Women in Science (BWIS) Wine & Cheese Party on Thursday, November 29, 5:15 p.m.-7 p.m. in the Recreation Hall, Bldg. 317. BWIS holds this event annually to thank all who have supported BWIS programs, to welcome new members, and to introduce the new executive board to the Lab community. Both men and women are welcome to join BWIS. For more information, contact Kathryn Clifford, kclifford@bnl.gov.

BREA Talk Postponed

The Brookhaven Retired Employees Association talk by Suffolk County Legislator Steven Stern at noon on 11/15, has been postponed. The new date will be announced later.

United Way Kickoff: 11/13
'United We Care...United We Share'
Meet Chair Ken White, Co-Chair Kathy Gurski

Joseph Rubino D0111107

This year's United Way Campaign Chair, Ken White of the Office of Educational Programs (OEP), accepted the position for several reasons. "I believe in the good that United Way does, I have Kathy Gurski as a co-chair, a great network of people help every year, and I am always impressed by how responsive BNL employees are to helping our neighbors in need," he said.

White has been a volunteer for many years, both at the Lab and off-site, and he welcomes the opportunity to work with BNLers to make this year's United Way campaign successful.

Said White, "When I was in the U.S. Navy, my newborn daughter underwent open heart surgery. We spent a considerable amount of time in Boston. Upon return to my ship, I was surprised and grateful for a collection my fellow sailors made to help with our expenses. I never forgot that unexpected act of kindness and generosity. Similarly, the United Way helps people in time of need and supports many agencies. Often, recipients don't realize that United Way helped fund the services they receive."

Kathy Gurski, who works with White in OEP, stepped in to be White's co-chair. "I have participated in the holiday auctions every year, and I know that the United Way provides services for many local families, so I was happy to help Ken lead the campaign this year," said Gurski.

This year's campaign will include raising funds through the return of pledge forms sent to employees starting on November 13. As an added incentive, those who get their pledge forms in by November 27 will be eligible for a drawing for one of two $250 American Express Gift Certificates. This year's goal — at least 500 pledge forms!

Many other events like the traditional holiday auction, bake sale, yard sale, and book sale will be held. Departments are asked to support the events that help the United Way and add to the camaraderie of the holiday season. In addition, employee volunteer hours are matched by a contribution to the United Way campaign from Brookhaven Science Associates. More details are on the web.

"BNL participation in the United Way campaign helps to make the Lab part of the fabric of Long Island. It is an honor to work with the volunteers and to experience the generous nature of our employees first hand. We hope you will join us and make this year's campaign a great success," said White. — Jane Koropsak

To see a list of 2007 United Way Team members or for more information on the campaign go to: http://intranet.bnl.gov/unitedway.

Upcoming United Way Fund Raiser Events

Participate in the Volunteer Work Program now through 12/31, contact Maria Beckman, Ext. 5463 or beckman@bnl.gov.

11/9 ..... Chili Luncheon at Bldg. 460, noon-1 p.m. RSVP to Maureen McDonnell, Ext. 5026 or mcdonnel@bnl.gov.
11/15 ..... Bake Sale, Bldg. 400 lobby - 1:30-3:30 p.m.
11/15 ..... Ice Cream Sundaes, Bldg. 460, Conf. Room - 1-2 p.m.
11/16 ..... Car Wash, Firehouse, 11 a.m.-1 p.m.
12/5 & 6 ..... Holiday Auction, Berkner Hall, 11 a.m.-2 p.m.
12/14 ..... International Food Tasting, Rec. Hall, noon-1:30 p.m. Tickets, $10, Jennifer Lynch, Ext. 4894, jlynch@bnl.gov
12/18-21 ..... Holiday Gift Wrapping, Berkner Hall, 11 a.m.-2 p.m.

Also, see *http://intranet.bnl.gov/unitedway*

Arrivals & Departures

— Arrivals —

Patrick Achord ..... Chemistry
Edward Bajon ..... C-AD
John Dubendorff ..... Biology
Georgy Nazin ..... CFN
Sebastien Monchy ..... Biology
Joseph Torre ..... Plant Eng.
Mary Schultz ..... Fiscal Srvcs.
Tristan Ziska ..... Physics

— Departures —

John Gould ..... C-AD
Nizamuddin Shaikh ..... Chemistry

Dave Rahm Fest, 12/18

All are invited to an 80th Birthday Fest on Tuesday, December 18, in the Physics Department to honor David Rahm. A symposium will begin at 2 p.m. in the Large Seminar Room, with speakers who will include Sam Aronson, Robert Palmer, Veljko Radeka, Nicholas Samios, and Bill Willis. A dinner will be held at 6:30 p.m. Register at www.usatlas.bnl.gov/DR80 or contact Linda Feierabend, Ext. 4887 or feierabe@bnl.gov by December 3.

ISM Champions Workshop, 11/28-30

From November 28-30, BNL and the DOE-Brookhaven Site Office will host the annual Integrated Safety Management (ISM) Champions Workshop. BNL is the first Office of Science Laboratory to host this event, which will take place in Berkner Hall, the Brookhaven Center, and the Hamilton Seminar Room.

This year's theme is "Good to Great: A Vision for Integrated Safety Management in the Department of Energy Complex." The workshop will feature notable speakers from DOE, the Defense Nuclear Facilities Safety Board, and the Federal Aviation Administration. Brian Bagley, an associate of the Good to Great® organization, will be the special keynote speaker.

About 300 attendees from across the DOE complex are expected to participate in a wide variety of sessions discussing best practices and lessons learned regarding all aspects of ISM. A detailed agenda plus registration instructions can be found on the workshop website at www.bnl.gov/ismworkshop/. BNL and BHSO staff are encouraged to attend, but are asked to register via this website for an accurate headcount.

Colloquium on Spallation Neutron Source 11/21

Thomas Mason, Director of Oak Ridge National Laboratory, will give a Special Physics Department Colloquium on Wednesday, November 21, at 9:30 a.m. in the Large Seminar Room, Building 510. He will give an overview of the Spallation Neutron Source, initial scientific results and future developments. All are welcome.

Daya Bay Experiment Groundbreaking *(cont'd)*

mass; neutrinos fill the Universe, and their effect on the evolution and structure of the Universe is therefore significant. Learning more about this new kind of neutrino oscillation may help unlock the secret of why antimatter is largely missing from the Universe, which makes existence possible.

Robin Staffin (second from left in photo, p. 1), Director of DOE's Office of High Energy Physics, said, "At the ground where we now stand, scientists will measure with the world's greatest precision one of the most important parameters of nature." Staffin is now senior science advisor to the Director of DOE's Office of Science.

The October 13 ceremony marks the beginning of civil construction of underground facilities for the experiment near the Daya Bay and Ling Ao nuclear reactors, the sources of the antineutrinos to be measured in the experiment. The detectors in the first experimental hall are scheduled to start operating by the end of 2008. Construction of the last six detectors is anticipated to last about two years, with installation of the last detector in 2010.

The Daya Bay Collaboration is made up of 35 institutions with a total of over 190 collaborators from three continents, working together to build the experiment. The project is supported by the Chinese Government, the China Guangdong Nuclear Power Group, and DOE's Office of High Energy Physics. Additional funding is being provided by the U.S. National Science Foundation, and other countries and regions including Hong Kong, Taiwan, the Czech Republic, and Russia.

The Daya Bay Reactor Neutrino Experiment is one of the largest cooperative scientific projects between China and the U.S., and is establishing a model for future cooperation in the realm of scientific research.

Led by Steve Kettell of the Physics Department as Chief Scientist for the US Daya Bay Project, BNL researchers are leading many aspects of the experiment. The development of the liquid scintillator to detect the antineutrinos is led by led by the Chemistry Department Neutrino Group, comprised of Dick Hahn, Minfang Yeh and Yuping Williamson. BNL contributions from Physics researchers include: the development of the muon system for identifying potential background interactions from cosmic rays led by Laurie Littenberg and Bob Hackenburg, with help from Dana Beavis, Mary Bishai, Chellis Chasman, Milind Diwan, Jim Frank and visiting students Johnny Goett from Rensselaer Polytechnic Institute and Greg Wille from Stony Brook University; the engineering, installation and integration of the experiment, led by the US Project Chief Engineer Ralph Brown, with help from Bob Duffin and visiting engineers from the Institute of High Energy Physics, Lijun Wang and Jinyu Fu; the effort to assure safe design, construction and operation of the experiment, led by the US Project Safety Officer Dana Beavis; and the simulation of the experimental performance and the development of software to analyze the data is led by David Jaffe with help from Brett Viren, Zhe Wang, Lisa Whitehead and Kevin Zhang.

For more of the scientific details of the experiment, see www.bnl.gov/rhic/news/110607/story4.asp.

One-on-One Retirement Counseling, TIAA-CREF

A TIAA-CREF consultant will visit BNL on Wednesday, 11/14, and Tuesday, 11/27, to answer employees' questions about financial matters. The consultant will help you understand the importance of protecting your assets against inflation, learn about TIAA-CREF retirement income flexibility, and compare lifetime income vs. cash withdrawal options. For an appointment, call Suzanne Leone, (866) 842-2053, Ext. 4601.

One-on-One Retirement Planning: Vanguard

The Vanguard Group invites you to spend 45 minutes one-on-one with a licensed representative, at the Lab to talk about financial issues, on Friday, December 7. You may learn about: investing for long-term goals such as retirement; selecting funds for your savings; and making the most of the services and investment tools available to you. Schedule your session online at www.meetvanguard.com or call 1-800-662-0106, Ext. 14500.

Remember to Give to the BNL Food Drive

Many people around us on Long Island do not have enough to eat. Please share, so that they also have a happy Thanksgiving. Food bins are in Bldg. 400, at the Post Office, and in Berkner.

Calendar

— THIS WEEKEND —

Friday, 11/9

BJ's Wholesale Club at Berkner
11 a.m.-2 p.m. Berkner Hall lobby. BJ's representatives will enroll new memberships at discount: $38.03 for 2 cards, 15 months; normal fee is $48.88/12 months.

Saturday, 11/10

***St. Martin's Pot-Luck Party**
4:30-8 p.m. Rec Hall. See p. 4.

— WEEK OF 11/12 —

Monday, 11/12

Veterans' Day Holiday
BNL will be closed in observance of the Veterans' Day holiday. No Bulletin this week.

Thursday, 11/15

***Talk on Senior Citizen Task Force**
Postponed. See p. 2.

Friday, 11/16

***Hospitality Thanksgiving Dinner**
6 p.m. Rec Hall. See top, p. 4.

Saturday, 11/17

***Diwali, Festival of Light**
2:30 p.m. Berkner Hall. The BERA Indo America Association welcomes all to Diwali. See details, ticket information, p. 4.

— WEEK OF 11/19 —

Mon.-Wed., 11/19-21

***BNL Art and Crafts Show**
11:30 a.m.-1 p.m. daily, Berkner Hall, Room B. Opening reception on Mon., 11/19, 5-7 p.m., refreshments. See story, p.4.

Wednesday, 11/21

***Special Colloquium on SNS**
9:30 a.m. Physics Large Seminar Room, Bldg. 510. Thomas Mason, ORNL Director, will talk on the Spallation Neutron Source. All are welcome.

Thurs. & Fri., 11/22 &23

Thanksgiving Holidays
The Lab will be closed. No Bulletin will be printed this week.

— WEEK OF 11/26 —

Monday, 11/26

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.

Wed.-Fri., 11/28-30

***ISM Champions Workshop**
See notice above, left.

Wednesday, 11/28

430th Brookhaven Lecture
4 p.m. Berkner. Talk by Mike Blaskiewicz, Collider-Accelerator Department. See story, p. 1.

— WEEK OF 12/3 —

Thursday, 12/6

Blood Drive
9:30 a.m.-3 p.m. B'haven Center. Donors must be 16 – 75 years of age, in good health & weigh over 110 lbs. Restrictions may apply to individuals from the UK and Europe. To make an appointment, log on to the Human Resources webpage, click on "Blood Drive" and select "Schedule an Appointment." Contact: Liz Gilbert, Ext. 2315.

LabVIEW Lunch, 11/13

"LabVIEW Tips and Tricks" will be the topic of a workshop given by Robert Berger of National Instruments on Tuesday, November 13, 11 a.m.-1 p.m. in the ITD Seminar room on the 2nd. floor, Bldg. 515. Pizza will be provided. For more information, contact Christine Herbst, Ext. 5304, or herbst@bnl.gov.

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/jobs/.

OPEN RECRUITMENT – Opportunities for Lab employees and outside candidates.

POSTDOCTORAL RESEARCH ASSOCIATE – Requires a Ph.D. in theoretical physics. The successful candidate is expected to work on the QCD analysis of spin-dependent and nuclear parton distributions. The Nuclear Theory Group has active programs in the theory of heavy ion collisions at ultrarelativistic energies, spin physics and nuclear structure. Interested candidates should send a CV, a list of publications and arrange to have three letters of recommendation. Under the direction of W. Vogelsang, Physics Department. Send CV to felicia@bnl.gov, referring to Position No. FH 4779.

POSTDOCTORAL RESEARCH ASSOCIATE – Requires a Ph.D. in physics or materials science. Experience working with synchrotron x-ray beams and equipment, as well as having demonstrated original research in x-ray diffraction field is required. Successful candidate should be interested in x-ray diffraction phenomena and x-ray optics, particularly from an experimental perspective. Under the direction of E. Vescovo, National Synchrotron Light Source Department. Send CV to felicia@bnl.gov, referring to Position No. FH 3274.

SR. APPLICATIONS ENGINEER (I-8) (Term appointment) - Requires a B.S. degree or equivalent and at least 8 years experience in computing and software. Experience with data management systems, ROOT, C++, and object oriented programming and familiarity with experimental particle physics applications on a variety or operating systems and platforms is required. Experience with a wide variety of hardware systems, e.g. RAID arrays and SQL experience is necessary; distributed computing experience preferred. Experience working collaboratively on large projects preferred, and ability to work in this environment essential, as is interest and aptitude in user support. Will work with members of the ATLAS experiment, in coordination with the US ATLAS Research Program and CERN software teams to develop databases and user interfaces based on ROOT and SQL-based data management products. As the ATLAS experiment begins to acquire data, the job responsibilities may shift to other areas, such as event visualization, grid environment support and other related software tasks. Physics Applications Software Group / Physics Department. Send resume to morales@bnl.gov, referring to Position No. RM 4780.

Motor Vehicles & Supplies

06 FORD MUSTANG CONV. - 6cyl. a/t Shaker 500 multi cd chngr, pony pkg., racing stripes, lther int. abs trac. cntrl. warr. 30K mi. $20,500. Craig, Ext. 4154 or 764-3353.

06 VW BEETLE CONVERTIBLE - 5 cyl. auto, a/c, am/fm/cd, c/c, heated seats, canvas roof, alloy wheels, excel. cond. 23K mi. $18,500. Sarah, Ext. 4207 or 521-5301.

05 MAZDA RX-8 - metallic white, a/t, sports tuned susp, 18" wheels w/lg brakes, ext'd warr., perf. cond. $21,000. Ext. 5665.

04 SATURN ION - 4 dr., red, am/fm/cd, a/c, a/t, excel. cond. 9500 mi. $12,500. Bob, 289-1834.

04 CHEVY SILVERADO 1500 - ext. cab, ls, v8, 5.3lt, a/c am/fm, cd c/c, 4wd, p/b, p/l, p/s, p/w tilt whl, cap bed liner, 185 h 42K mi. $18,100/neg. Tom, Ext. 7578 or 793-4568.

03 DODGE NEON SE - 4cyl., 2L, 4spd., a/t, a/c, am/fm, p/b, p/s, transferable serv. agreement, excel. cond., non-smokr. 58K mi. $5,800. Chris, Ext. 3757.

01 NISSAN ALTIMA GXE LE - a/t, abs, a/c, c/c, pw/pl, am/fm/cd, 2 yrs more transfrble serv. agreemt., excel. cond. 70K mi. $6,500/neg. Igor, Ext. 3939 or 821-3559.

99 PONTIAC GRAND AM - red, 6 cyl, 4 dr, rebuilt eng., runs well, cd, a/c, c/c, p/s, p/w, p/l, just tuned, inspctd. 135K mi. $2,000. 286-8356.

98 DODGE CARAVAN - White, 6 cyl., 7 pass., w/2 sliding drs, some mechanical & cosmetic defects but runs okay. 130K mi. $1,000/neg. Ext. 2553.

97 HONDA CIVIC - 5 spd., 6 CD player, clean in & out, grt gas mi. metalic blue color. 108K mi. $3,800/neg. Ildiko, Ext. 3333.

97 DODGE GRAND CARAVAN - runs well, gd shape, a/c & heat work well, new brakes, 1 new tire, rem strt. 103K mi. $3,800/neg. Michell, Ext. 2541 or 767-7785.

96 HONDA EX - 4 dr., a/t, a/c, dk. green, am/fm, p/l, p/s, p/w, m/roof, keyless ent., alarm, auto of the yr., 166K mi. $3,675/neg. Ext. 2389.

94 NISSAN QUEST - red, 3L, V6, a/c, a/t, p/s, p/b, am/fm, cass., orig. owner, 126K mi. $2,200. Etsuko, Ext. 4356.

ATV RIMS & TIRES - removed from Honda 400EX H-Trak M/R-101, Radials, Tubeless, AT 22x7x10, AT 20x10x9, $125/obo. Don, Ext. 7237.

Furnishings & Appliances

CHINA CLOSET - lg., mint cond., $1100, top has int. lighting & glass shelves, bottom drawers & cabinet. Rolf, Ext. 2305.

CORNER COMPUTER DESK - w/2 matching bkcases, light wood, gray top, excl. cond., $350/neg., pic. avail., mb@bnl.gov. Maryellen, Ext. 3670.

DINING SET - Thomasville, 46" rnd pedstl table w/18" inset, 4 upholstd chrs $2500, new, ask/$1800; couch & love seat, Broyhill, excel. ask $750. Rolf, Ext. 2305.

FREEZER - Frigidaire 14 cu ft, like new, excel. cond., ask. $150. Katherine, Ext. 2269.

KEROSENE HEATER - Kero-Sun, model Radiant 10, hardly used. $25. Richard, Ext. 3239 or 472-9034.

ORECK VACUUM CLEANER - just rec'd 1 yr. tune up hardly used, 19 more free incl. cost $800, will sell for $350. Dennis, Ext. 4028 or 375-8519.

Audio, Video & Computers

GARMIN STREETPILOT - c300 brand new, still in bx, @215/obo. Ext. 7397.

HOME THEATER AUDIO - elemental designs spkrs., yamaha receiver, ask/$1600 for all. Mark, 902 8188.

PRINTER - portable, color, Canon BJC-85 w.software and cable, excel. cond., $200. Ext. 3217.

SCANNING SERVICE - www.pictureperfectscans.com scans slides, prints, negatives & restores them to their orig. glory, delivered on DVD. Music slideshows avail. Dianne, 928-6469.

Sports, Hobbies & Pets

HORSE FOR LEASE - v sweet, 1/2 lease 2 days/wk., 2 hrs. riding, $150/mo or $99/mo 1 day/wk, 1 hr. riding, Ridge. 347-923-0041.

HORSE LEASE - Egyptian Arabian, $150/mo 2 days/wk. 2 hrs. ea. day or $99/mo 1day/wk for 1 hr., riding in Ridge, Terry. 516-644-9793.

PIANO - Westbrook piano, ask/$100/obo. Ext. 6141 or 347-615-9601.

Miscellaneous

2005 ST NICHOLS VILLAGE HOUSES - Country Chapel, Grandma's House, train station, post office, $55/all or $15/ea. like new, in box. Patriche, Ext. 5561.

CHILD 2nd SEAT - Bertini, brand new, ask/$40. Ext. 6141 or 347-615-9601.

COAT - full length, red w/black trim on collar, size 10/petite, ask/$25; blazers, size 10 petite, 3 colors, $10/ea. Ext. 3431.

DVD PLAYER - $25.00. Mary, Ext. 3670.

KEY LOCKER - for 30 keys, wall mountable, ask/$10. Peter, Ext. 5551.

MIKASA CHINA - White w/Platinum edging. Hardley used, Pic. avail. 11 sets. $30/set, mb@bnl.gov. Mary, Ext. 3670.

SHREDDER - Staples 6-sheet light-duty, cross cut, brand new, $15. Ext. 3485.

Yard & Garage Sales

MORICHES - Moving Sale, furn. electronics, kit. items, more, see details under www.zecke.110mb.com. Chris, Ext. 3757 or 909-3329.

Community Involvement

THE GREAT CEILI - The ICCLI is holding it's first fundraising event, Nov 16. See the website www.greatceili.com.

Happenings

AAP FUNDRAISER - Adopt-a-Platoon all this week at Berkner, 11 to 1. Great military emblem t-shirts, jackets, & caps! Ext. 5483.

Free

Dog - Elvis, 3 yrs. old male Lab mix, gd family pet, loves kids, housebroken, needs new loving home, we have new location NO pets allowed. John, Ext. 5456.

KITTENS - 6 mos. old, 2 males, 1 black, 1 striped, neutered, shots, house-trained, need a home. Barbara, 928-8112.

Wanted

BABYSITTER - 3 children, ages 12/9/8, before school, 6:30-9:15, my home, Ronkonkoma area, Exit 61. Renee, 516-805-9876.

CHOCOLATE FOUNTAIN - sm./med. size. Ext. 4532.

DOOR - 30" interior w/door jamb. dr. knob hardware not req. Don, Ext. 7237.

FREE SUPERMARKET TURKEY COUPON - To be included in holiday food baskets for the area's needy. Send to M. Beckman, Bldg. 120. Thanks!. Ext. 5483.

RENTAL WANTED - 1 br near Lab, $1k/mo., pets accepted, off st. prkg, mo. to mo. lease. Brian, Ext. 5063.

SINGLES - Looking to go fun places and do fun things? Meet @ the Ctr Club, Bldg 30, today, Fri., 11/9 @ 5 p.m. Kim, Ext. 7465.

SINGLES - Looking to go fun places & do fun things? Meet @ Ctr. Club, Bldg 30, this Fri. 11/9 @ 5pm. Kim, Ext. 7465.

WRAPPING PAPER - Needed for Holiday Gift Wrapping Fundraiser Dec 18-21. Joanne, Ext. 8481.

For Rent

CENTER MORICHES - waterfront, 85' bulkhead, 2 bdrm. house, 2 car gar., .5 acre, no pets, credit check, incl. util. $1,800/mo. Alan, 487-4201.

CLEARWATER, FL - 2 bdrm. Condo, 1.5 baths, seasonal or yr. round reasonable. $1/mo. 475-0369/289-5674.

FARMINGVILLE - lg bdrm in house, full kit., l/r, d/r, share bath w/1, cable, wifi, phone, elec incl. $600/mo. Ben, Ext. 5879.

MOUNT SINAI - brand new luxury condo 55+ gated sec., situated on pond, 2 br, 2 bath, full bsmt, gar., fp, ca, walking paths. $2,000/mo + util. $2,000/mo. 751-4421.

PATCHOGUE - WatersEdge, 1 bdrm condo $1100 + util. avail., 1/1/2008 $1,100/mo. Amy, 278-7379.

SHIRLEY - 3 brm 1.5 bath, 2 car gar. scrn rm, lr, dr, fen. yd. $1,600/mo. 745-2495.

SHIRLEY - 1 rm 14/11 stove kitnet, furn, full bath, sep ent, tv, elect, cable, heat, wireless int, all incl, 5 min to stores/15 to Lab, no smkg/pets, 1mo. sec. $650/mo. Ext. 8321.

SHIRLEY - 1 rm, 8/8 microwve kitnet, furn, full bath, sep ent, tv, elect, cable, heat, wireless int, all incl, 5 min to stores/15 to Lab, no smkg/ pets, 1 mo.s $600/mo. Ext. 8321.

SHIRLEY - 3 bdrms, 1.5 bath, l/r, d/r, fam. rm., screened in patio rm., attch. 2 car gar., fp, w/d, fen. backyd., 10 mi. to BNL. $1,700/mo. 745-2495.

SHOREHAM - share house w/professional, partial furn. bdrms., 7 mi. from BNL, int.& tv incl., no smkg/pets, single preferred. $600/mo. 744-3543/413-1966.

STONY BROOK - close to USB, lg. bdrm + office; 1 lg. bdrm, $900; 1 med. bdrm. $800, shared bath, laundry, kit. and dr. $1,100/mo. 623-8099.

WADING RIVER - 4 bdrm, 2 bath house, full bsmt, SWRSD, priv. beach, 10 min to Lab, pets ok. $2,000/mo. John, Ext. 4028 or 821-5334.

WADING RIVER - 2 bdrm, 1 bath house, full bsmt, prkg., 10 min to lab, util. incl., pets ok., SWRSD 1.5 mo. sec. $1,650/mo. John, Ext. 4028 or 821-5334.

For Sale

BELLPORT - 4-BR. ranch, 2 bth, l/r w/dble opening fp to den, d/r, eik, oak flrs, screened deck, laundry rm, fin. bsmt: w/4th BR, bar, full bth, 2 rms; gar., 2 sheds, sprinklers, gt. cond. 15 min. to Lab. $415,000; 949-7797.

BLUE POINT - Colonial, 5 bdrm. or potential Mother/Daughter, 2 bath, l/r, d/r, kit., bsmt./crawl space, porch, 1.5 car gar., fenced yd, low taxes. $399,000/neg. John, Ext. 5025 or 730-1165.

EAST MORICHES - ranch, 3 bdrm, 2.5 bath, cathedral ceiling, f/p, tile, radiant heat, fin. bsmt., covered porch, patio, 1/2 acre, landscaped, cul-de-sac, low taxes. $415,000/neg. 882-0519.

SHIRLEY - 4-5 bdrm, 2 kit., 2.5 baths, full bsmt, scrn rm, lr, dr. $299,000/neg. Joseph, 745-2495.

WADING RIVER - 3 bdrm, 2 bath .5 acre. lg mstr. bdrm w/cath ceiling, lg livg. area, 1.5 car gar. bsmt. SWRSD. approx .5 mi. from Sound, lovely area. great cond. $519,000 Jean, Ext. 4391 or 379-2282.

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

No Bulletin Next Two Weeks

No Bulletins will be printed next week or the following week as the Lab is closed on 11/12, in observance of Veterans' Day, and on 11/22 & 23, for the Thanksgiving Holiday. Next Bulletin: 11/30.

BNL Art & Crafts Show Ahead, 11/19-21

Roger Stoutenburgh D0541107

A 14-inch cardinal, created from natural wood with a scroll saw, using a technique called Intarsia, is just one of the beautiful works that will be on display in Berkner Hall Room B at the upcoming BNL Art & Crafts Show, just before Thanksgiving, Monday-Wednesday, November 19-21, 11:30 a.m.-1:30 p.m., with an opening reception with refreshments on Monday, 11/19, 5-7 p.m. The cardinal that visitors will see is the work of the Instrumentation Division's Rolf Beuttenmüller, who has exhibited beautiful examples of scrollwork for the past few annual shows.

Beuttenmüller first started scrollwork about three-and-a-half years ago when he wanted some "gingerbread" decorative woodwork to beautify his garden shed.

"I had inherited a scroll saw, so I set to work and tried it out," he said. "The result was quite successful, and I got hooked into taking it up as a hobby." Beuttenmüller, who manages the machine shop and clean room of Instrumentation's semi-conductor processing facility, grew up with creative parents.

"My father was a machine tool maker and he was always making something," he said. "My mother was a seamstress who did a lot of digital embroidery — perhaps I inherited some of their creative genes as well as the saw."

The cardinal is one of the most ambitious artworks Beuttenmüller has tried, and it is made up of 41 pieces. The different colors are achieved by using different woods. "The body is blood wood, the leaves poplar, flowers aspen, branches walnut, the other bits are mahogany," he said.

About a year ago, Beutenmüller also started turning wood on a lathe. At the upcoming show, he will display some bird houses and bowls made like this, and also, some Christmas ornaments.

Many other talented BERA members and some guest artists will also show photos, sculpture, paintings, and more, which the Lab community and all members of the public are warmly invited to come and see. Visitors to the Lab of age 16 or more must carry a photo I.D. Requests to exhibit works in the show may be made by Tuesday, 11/13, to Robert Chrien, BNL Art Society President, chrien@bnl.gov or Ext. 3903.

Hospitality Thanksgiving Dinner Party, 11/16

The Hospitality Committee cordially invites all visitors, guests and their families to a Thanksgiving Dinner Party on Friday, November 16, at 6 p.m. in the Recreation Hall. Hospitality will provide the traditional turkey feast. Enjoy DJ dancing and family fun. Call Christine Carter, Ext. 5090. Volunteers needed!

St. Martin's Pot Luck Dinner Party, 11/10

The BNL Hospitality Club and the German School of Long Island invite you to the St. Martinsfeier Pot Luck Dinner, tomorrow, Saturday, 11/10, 4:30-8 p.m., at the Recreation Hall. Visitors to the Lab age 16 and older must bring a photo ID. Enjoy: St. Martin's story, singing with lanterns, potluck dinner, and children's games. Bring a lantern for each child and a dish to share for dinner or dessert. Contact Simone Oppenheimer, 929-0043 or soppenheimer@optonline.net .

Celebrate Diwali — the Festival of Light, 11/17

The BERA Indo American Association (BERA-IAA) will hold Diwali — the Festival of Light — on Saturday, November 17, starting at 2:30 p.m. in Berkner Hall. The program will showcase the rich culture and traditions of the Indian subcontinent through music, dance, and the arts, performed by professional and amateur artists. Authentic Indian snacks will be served during the intermission; a semi-formal Indian dinner will follow the cultural program.

Tickets are available at the BERA Store or send a check to BERA-IAA, to S. Khalid, Bldg. 724 D. Adults, $15; children 5-11: $9; children 2-4, $5; infants: free, but must be registered.. Prices rise $2 after today. For more details, visit http://www.bnl.gov/bera/activities/iaa/diwali2007 . For more information, go to www.bnl.gov/bera/activities/iaa, or e-mail bera-iaa@bnl.gov.

Hospitality Bus Trip to Manhattan, 12/16

The Hospitality Committee invites all BNLers and their families to spend a day in New York City, drop-off point: Rockefeller Plaza. The bus will leave the Recreation Hall, Bldg. 317, at 9 a.m. and leave the city at 6 p.m. The cost is: $10, adults; $5, children 2-12. Reserve places with Joanne Rula, Bldg. 400, 344-8481 or jrula@bnl.gov. Reservations and payments must be made in advance.

LabVIEW Basics — I & II, 12/3-7

A five-day training course on National Instruments LabVIEW (LV) Basics I and II will be offered at BNL Monday-Friday, 12/3-7. The course introduces the LV environment, featuring dataflow programming and LV architectures. LV Basics I part teaches the development of tests and measurements, data acquisition, instrument control, and data logging. LV Basics II teaches howto design complete stand-alone applications. The cost of $1,834 per person will be paid by the participant's department/division. For more information, contact Chris Herbst, herbst@bnl.gov or Ext 5304.

the Bulletin

Published weekly by the Media & Communications Office for the employees, facility users, and retirees of Brookhaven National Laboratory.

Liz Seubert, editor
Roger Stoutenburgh, photographer

On the Web, the Bulletin is located at www.bnl.gov/bnlweb/pubaf/bulletin.html. A calendar listing scientific and technical seminars and lectures is found at www.bnl.gov/bnlweb/pubaf/calendar.html.

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