

Brush Fire Near Northeast Area Of Lab Site Earlier This Week

With a Red Flag Warning for potential wildfires already issued by the National Weather Service, the Laboratory Protection Division & Emergency Response Organization responded to brush fire that ignited near the northeast area of the site at approximately 2:30 p.m. on Monday, April 9. The fire was contained and under control by the following day. Suffolk County's Fire, Rescue & Emergency Services reported that firefighters from 109 departments in Suffolk and 15 in Nassau County battled the fire on site and in nearby towns. The Lab's Fire Rescue Group continued to monitor the site for flare-ups and hot spots after the fire was extinguished.

Supercomputing the Difference Between Matter and Antimatter

Research spurs innovations in computing technology, driving advances to supercomputers

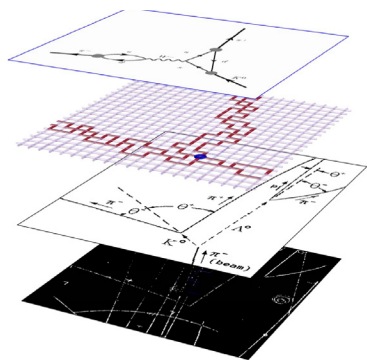
An international collaboration of scientists has reported a landmark calculation of the decay process of a kaon into two pions, using breakthrough techniques on some of the world's fastest supercomputers. This is the same subatomic particle decay explored in a 1964 Nobel Prize-winning experiment performed at BNL, which revealed the first experimental evidence of charge-parity (CP) violation — a lack of symmetry between particles and their corresponding antiparticles that may hold the answer to the question "Why are we made of matter and not antimatter?"

The new research — reported online in *Physical Review Letters*, March 30, 2012 — helps nail down the exact process of kaon decay, and is also inspiring the development of a new generation of supercomputers that will allow the next step in this research.

"The present calculation is a major step forward in a new kind of stringent checking of the Standard Model of particle physics — the theory that describes the fundamental particles of matter and their interactions — and how it relates to the problem of matter/antimatter asymmetry, one of the most profound questions in science today," said Taku Izubuchi of the RIKEN BNL Research Center and BNL, one of the members of the research team publishing the new findings. "When the universe began, did it start with more particles than antiparticles, or did it begin in a symmetrical way, with equal numbers of particles and antiparticles that, through CP violation or a similar mechanism, ended up with more matter than antimatter?"

Either way, the universe today is composed almost exclusively of matter with virtually no antimatter to be found.

Scientists seeking to understand this asymmetry frequently look for subtle violations in predictions of processes described by the Standard Model. One property of these processes, CP symmetry, can be explored by comparing two particle decays — the decay of a particle observed directly and the decay of its antiparticle, viewed in mirror reflection. "C" refers to the exchange



The distance scales incorporated into the kaon-decay calculation range from fractions of a meter (bubble-chamber image, bottom), to fractions of a femtometer (Feynman diagram of quark transformations, top). For details, go to http://www.bnl.gov/bnlweb/pubaf/pr/PR_display.asp?prID=1402.

of a particle and its antiparticle (which is exactly the same but with opposite charge). "P" specifies the mirror reflection of this decay. But as the Nobel Prize-winning experiments showed, the two decays are not always symmetrical: In some cases you end up with extra particles (matter) and CP symmetry is "violated."

Exploring the precise details of the kaon decay process could help elucidate how and why this happens.

Supercomputing the Decay Process

The new calculation of one aspect of this decay, which required creating unique new computer techniques to use on some of the world's fastest supercomputers, was carried out by physicists from BNL, Columbia University, the University of Connecticut, the University of Edinburgh, the Max-Planck-Institut für Physik, the RIKEN BNL Research Center (RBRC), the University of Southampton, and Washington University. The calculation builds upon extensive theoretical studies done since the first 1964 experiment and much more recent experiments done at CERN, the European particle physics laboratory, and at Fermi National Accelerator Laboratory.

The unprecedented accuracy of the measured experimental values — which incorporate distances as minute as one thousandth of a femtometer (one femtometer... See *Matter & Antimatter* on p. 2

Scientific Progress, Greater Capabilities, Sustained Safety & Operational Excellence

Director Aronson Discusses Keys to BNL's Future During All-Employee Meeting

Brookhaven Lab's science progress and capabilities, the search for a new Lab Director and new Associate Lab Director (ALD) for Nuclear & Particle Physics (NPP), and the budget outlook were all discussed by Lab Director Sam Aronson at his all-employee meeting on Monday, April 2. But the Lab's commitment to sustained safety and operational excellence was the primary focus of the meeting, with Aronson detailing recent trends and missteps, and the need for the Lab community to commit itself to safety and operational excellence to maintain its science leadership position.

Hundreds of Lab staff members filled Berkner Hall for the meeting, packing the main floor and the balcony, while more than 750 tuned in to watch the video simulcast online. Those who missed the meeting, or would like to replay portions of it or download the presentation, may do so online.

Sustained Safety and Operational Excellence

"Over the last four years, we've been doubling the number of operational events every year," Aronson said. "We need to address these incidents because people are going home less well than when they got here."

Aronson noted that two employees have had life-altering injuries as a result of accidents — one from the tree-felling incident in 2011 and one from the scissor-lift incident this fiscal year (FY) — which easily could have resulted instead in their deaths.

And, he noted, these contributed to the DOE Office of Science's giving BNL a 'B-minus' for safety operations. "Every year, we get a report card from the DOE with eight goals, some are science and some are operations," he explained. "The 'B-minus' was the lowest grade given to any national lab in any category."

A bright spot Aronson noted was the performance of the Lab's IBEW workers, who have brought their injury rate down significantly during the first two quarters of FY 2012. He praised the IBEW's commitment to enhanced work planning, hazard identification, and the roles of the union safety representative and the Joint Safety Operations Council.

The Lab's focus must be on simultaneous excellence in science, operations, and stakeholder relations, Aronson said. And, he added, he needs to see a commitment from all Lab staff to "engage-



Laboratory Director Sam Aronson said a Labwide focus on engagement, accountability, and role modeling is important for achieving sustained safety and operational excellence as part of realizing the Lab's mission.



Watch video and presentations from the meeting online: http://www.bnl.gov/today/story.asp?ITEM_NO=2977

ment, accountability, and role modeling."

"These all require the 'people' component. Engagement means everybody on site is invested in the outcomes of the Laboratory. If I go up to anyone and ask 'what do you do,' they should be able to tell me they are contributing to the outstanding science of BNL, that they are working together in a positive reinforcement way. This is what I would call 'accountability.' I know when people hear that word they hear 'discipline,' but the main aspect is holding ourselves and our colleagues accountable for excellent work."

To demonstrate excellent role modeling, Aronson then introduced the latest video in the "How I Made BNL Safe" series, featuring Business Operations' Ayse Frosina, who devised a game to teach her colleagues important Lab safety rules and guidance. After her video played on the big screen, Aronson congratulated all the employees who have contributed to the "How I Made BNL Safe" video series, in particular 10 who were able to attend the all-employee meeting, who stood for Aronson's thanks and their colleagues' applause. Aronson said all were examples of role modeling a positive and proactive safety culture. "These are folks who, on their own, saw something they could do that would improve how we approach safety around here — and they did it."

Scientific Progress and Building Capabilities

Aronson noted accomplishments of the NPP directorate, results coming from the Daya

Bay neutrino experiment, design of a new accelerator-based cancer treatment facility, and the Lab's contribution to the Large Synoptic Survey Telescope.

The Berkner audience was treated to the debut of a new video Brookhaven Lab is contributing to a DOE series called "Breakthroughs at the National Labs." The BNL video features STAR physicist Paul Sorensen, who describes his passion for discovery and the amazing technology and collection of great minds gathered at BNL. A result of the basic research at the Relativistic Heavy Ion Collider (RHIC), Sorensen said, is a wealth of discoveries that lead to real-world applications, such as improved superconducting magnets, detector technology, and computing. "This is also where the next generation of scientists will be trained, and who knows what they're going to go off and do and discover with the knowledge they've gained at RHIC."

"Technology commercialization, biomedical work, and fuel cells — we have the capabilities to do groundbreaking science in a number of areas," Aronson said. "And we're building our capabilities further, with the National Synchrotron Light Source II (NSLS-II) very close to completion and the Long Island Solar Farm that, since November, has been producing electricity for thousands of homes on Long Island." Aronson also invited employees to tour the NSLS-II ring Thursday, April 26, 11:30 a.m. -12:30 p.m., as part of "Take Your Children to Work Day" (see p.2) and to a guided bicycle tour of the Long Island Solar Farm Friday, April 20, at noon, as part of the Lab's Earth Week activities (see p.4).

Next up was another video debut, this time about the progress and capabilities of the Interdisciplinary Science Building-1 (ISB-1), featuring Associate Lab (ALD) Director Gerry Stokes of the Global and Regional Solutions Directorate and ALD Jim Misewich of the Basic Energy Sciences Directorate, as well ISB-1 Project Manager Peggy Caradonna and several building contractors. They explained its advanced capabilities as well as its energy efficiency.

See *All-Employee Mtg.* on p. 2



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.

— REGULARLY —

Weekdays: Free English for Speakers Of Other Languages Classes

Beginner, Intermed., Adv. classes, various times. All welcome. Learn English, make friends. See <http://www.bnl.gov/esol/schedule.asp> for schedule. Jen Lynch, Ext. 4894.

Mondays: Yogalates

Noon–1 p.m. at the Rec Hall (Bldg. 317). Registration required, Ext. 2873.

Mon. & Thurs.: Kardio Kickboxing

\$5 per class. 12:15–1:15 p.m. in the gym (Bldg. 461). \$5 per class. Ext. 2873.

Mon., Tues., Thurs., & Fri.: Tai Chi

Noon–1 p.m., B’haven Cntr (Bldg. 30), N. Rm. Adam Rusek, Ext. 5830, rusek@bnl.gov.

Tuesdays: Hospitality Welcome Coffee

10:30 a.m.–noon. Rec Hall (Bldg. 317). Meet over coffee. Children welcome.

Tuesdays: Pilates

Noon–1 p.m. at the Rec Hall (Bldg. 317). Registration required, Ext. 2873.

Tuesdays & Wednesdays: Zumba

Tuesdays: Noon–1 p.m., in gym (Bldg. 461). Wednesdays: 5:15–6:15 p.m., at the Rec Hall (Bldg. 317). Registration required, Ext. 2873.

Tuesdays: Toastmasters

Two monthly meetings: 1st & 3rd Tuesdays, 5:30 p.m., Bldg. 463, Room 160. Guests and visitors welcome. www.bnl.gov/bera/activities/toastmasters/.

Tuesdays & Thursdays: Aerobic Fitness

5:15–6:30 p.m. in the Rec. Hall (Bldg. 317). \$5 per class, or 10 classes for \$40. Kathy Schoenig, Ext. 2818.

Tuesday & Thursday: Aqua Aerobics

5:30–6:30 p.m., Pool (Bldg. 478). Registration required, Ext. 2873.

Wednesdays: Ballroom Dance

5:30, 6:30, 7:30 p.m., Brookhaven Center (Bldg. 30). Vinita Ghosh, Ext. 6226.

Wednesdays: Play Group

10 a.m.–noon at Rec Hall (Bldg. 317). Parents meet while infants/toddlers play. For events, see <http://www.meetup.com/BNL-Playgroup>, or call Ext. 2873.

Wednesdays: Yoga

Noon–1 p.m., B’haven Center (Bldg. 30). Free. Ila Campbell, Ext. 2206, ilac@bnl.gov.

1st Wednesday of month: LabVIEW

1:30–3 p.m., Bldg. 515, 2nd fl. Seminar Rm. Free technical assistance from LabVIEW consultants. Ext. 5304, or Terry Stratoudakis, (347) 228-7379.

Thursdays: BNL Cycletrons Club

5 p.m., Brookhaven Center. First Thurs. of month. Andy Mingino, Ext. 5786.

Thursdays: Reiki Healing Class

Noon–1 p.m., Call for location. Nicole Bernholz, Ext. 2027.

Thursdays: Postdoc Social Night

6:30 p.m. ASAP Lounge (Bldg. 462). www.bnl.gov/asap.

Thursday: Judo Class

7:30 p.m. Gym (Bldg. 461). Tom Baldwin, Ext. 4556.

Fridays: Family Swim Night

5–8 p.m. Pool (Bldg. 478). \$5/family. Ext. 2873.

In Memoriam

Lewis Jiggetts, who joined the Alternating Gradient Synchrotron Department as a senior technician on August 17, 1981, and retired as a principal technician from the Relativistic Heavy Ion Collider Project on May 29, 1998, died at 80 on May 23, 2009. He had first joined the Lab as a guest electromechanical technician from January 28, 1980 until August 14, 1981.

Elizabeth Dominy (née Edwards), who, on March 14, 1955, became a clerk B in the Classified Documents Room Group, which changed its name to the Information Division on January 1, 1960, retired as an office services assistant IV on December 30, 1977, and died on August 25, 2009, at age 98.

Camera Club, 4/26

The Camera Club will meet on Thursday, April 26, at noon in Conference Room 2 in Bldg. 400. Those who plan to attend should email three recent photos to jjettler@bnl.gov.

WALK AROUND THE RING @ NSLS-II

SAVE THE DATE • APRIL 26 • 11:30 A.M. • DETAILS TO COME

All-Employee Mtg. from p. 1

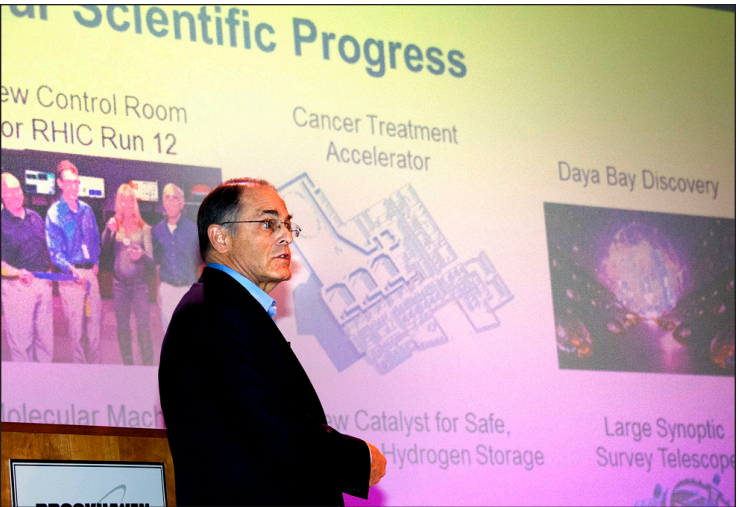
Director and ALD Searches

On his planned departure from the director’s position, Aronson said: “This is the right time for me and the right time for Brookhaven Laboratory — and I need to get back to research.” Aronson noted he has been in senior management at Brookhaven for 11 years, “and it’s time for a person with a longer time horizon to come on and carry the Lab to the next stage.”

He noted that as the time approaches for the DOE to either extend or recompet the Lab’s contract, it will be good for Brookhaven Science Associates (BSA) to have its senior leadership team in place and focused on the Lab’s future. BSA’s current contract to operate and manage BNL for DOE expires January 4, 2015.

“I will pursue our program of simultaneous excellence in science, operations, and stakeholder relations — while we face budgetary and other challenges,” he said of his focus in the months ahead. And as he announced previously, he will stay on in the Lab’s leadership role until a new director is in place. BSA is nearly ready to name the search committee for the new Director, and four out of its 10 members are from the Lab’s science and operations staff.

On the effort to replace NPP ALD Steve Vigdor, who is retiring at the end of FY12, Aronson said the goal is to make the transition as smooth as possible. The search committee — chaired by Wit



Roger Stoulenburg 00090412

Laboratory Director Sam Aronson said the Lab’s accomplishments this year have represented the broad spectrum of its research, including technological spin-offs.

Busza, Francis Friedman Professor of Physics at the Massachusetts Institute of Technology — has begun its work and has already launched a website so members of the Lab and broader physics community may provide recommendations and other feedback.

The Budget Outlook

“For the current fiscal year, RHIC funding is good,” Aronson noted. “In the current year, we have reasonable funding for RHIC operations and we’ll get more than 20 weeks of run in this year. This funding projection is the result of rebates on the cost of electrical power — we’re getting very favorable rates on the cost of power and we’ve been able to redistribute some money back to the programs.” He noted that NSLS operations are “down a little bit

this year...but by and large the budgets are reasonably good.”

The President’s budget request for FY13 has BNL down by \$63 million from the previous year, Aronson said. “This is mostly not a bad thing, as it reflects the turnover of the funding profile for NSLS-II, so it’s a planned reduction — we’re actually over the hump.”

“But there are issues with RHIC run time — the nuclear physics budget is [projected to be] down three-and-a-half percent from the previous year — so it will have a shorter run as we project it out now, and maybe short enough to think about joining it with FY14 in terms of a run that bridges fiscal years.”

He also noted some issues in continued operations funding and “less-than desired” funding

“This is a nice synergy between science and the computer — the science pushing computer development and the advanced computers pushing science forward, to the benefit of the science community and also the commercial world.” — Peter Boyle
University of Edinburgh

shortest distances of one thousandth of a femtometer — far below the size of an atom, within which one type of quark decays into another — to the everyday scale of meters over which the decay is observed in the lab. This range is similar to a comparison of the size of a single bacterium and the size of our entire solar system.

QCD, Monte Carlo

The collaboration carried out the computation using the methods of lattice quantum chromodynamics (QCD) — the theory that describes fundamental quark-gluon interactions — in which the decay is “imagined” as taking place within a lattice or grid of space-time points that can be entered into a computer. Then, the quantum fluctuations of the decay are calculated by a statistical method called the “Monte Carlo” method, which provides the most likely of the fluctuations as a result. The calculation required 54 million processor hours on the IBM BlueGene/P supercomputer installed at the Argonne Leadership Class Facility (ALCF) at Argonne National Laboratory. Earlier calculations were also done on Brookhaven’s QCDOC (for QCD on a chip) supercomputer, a prototype for IBM’s BlueGene series.

This calculation, when compared with predictions from the Standard Model, allows the scientists to determine another remaining unknown quantity important to understanding kaon decay and its relation to CP

violation. A direct calculation of this remaining unknown quantity and a higher precision recalculation of the present result will be the focus of future research, requiring even more computing power.

“Fortunately,” says co-author Peter Boyle of the University of Edinburgh, “the next generation of IBM supercomputers is being installed over the next few months in many research centers around the world, including the ALCF, the University of Edinburgh, the KEK laboratory in Japan, BNL, and the RBRC.”

New IBM Machines

These new IBM BlueGene/Q machines are expected to have 10 to 20 times the performance of the current machines, Boyle explained. “With this dramatic boost in computing power we can get a more accurate version of the present calculation, and other important details will come within reach,” he said. “This is a nice synergy between science and the computer — the science pushing computer development and the advanced computers pushing science forward,

for the next six beam lines at NSLS-II. “So there are problems ahead for us in the President’s budget request, but congressional work on this may affect it one way or another.”

Questions & Answers

After his presentation, Aronson answered questions from the audience and from Lab staff watching online, ranging from queries about how employees should best describe the Lab’s importance to fellow Long Islanders, to which efforts he is most proud to have led during his time as Lab Director. “Building experiments, building buildings, turning the infrastructure around is certainly a big accomplishment that I can take credit for, but it’s actually the work of hundreds of people on site,” he said. “I give a lot of credit to [Facilities & Operations Assistant Lab Director] Lanny Bates for his infrastructure strategic plan, turning the age-old infrastructure around here and putting up new buildings.”

Aronson also noted the evolution of the energy strategy at the Lab. “It has been very significant in terms of science and technology for the future — and a way to expand the Lab’s impact on society as a whole,” he said. “And what we’re doing with the nanocenter and Interdisciplinary Science Building, that kind of team approach, attacking big science problems, is something we’ve built out more here at the Lab together — and that type of activity will continue.” — Will Safer

to the benefit of the science community and also the commercial world.”

The calculations were performed under the DOE Innovative and Novel Computational Impact on Theory and Experiment (INCITE) program on the Intrepid BlueGene/P supercomputer in ALCF at Argonne National Laboratory and on the Ds Cluster at Fermi National Accelerator Laboratory, all computer resources of the USQCD Collaboration. Part of the analysis was performed on the Iridis Cluster at the University of Southampton and the DiRAC facility in the UK. The research was supported by DOE’s Office of Science, the U.K.’s Science and Technology Facilities Council, the University of Southampton, and the RIKEN Laboratory in Japan.

DOE’s Office of Science is the single largest supporter of basic research in the physical sciences in the United States, and is working to address some of the most pressing challenges of our time. For more information, visit science.energy.gov.

— Karen McNulty Walsh
with Liz Seubert



“Self-propelled, Other” category winners (from left to right): Second Place, Laraib Zaid from Robert Moses Middle School, Third Place, Kayla Hujber from Center Moriches Middle School, and First Place, Alyson Soltes and Sam Coyle from Center Moriches Middle School



“Electric” category winners (from left to right): Third Place, Changa Gaines, Second Place, Nicholas Szyoka, and First Place, Joseph DeBlasi from Robert Moses Middle School, and Kaitlin Thomassen of BNL’s Office of Educational Programs

Robert Moses Middle School Races by the Competition At Brookhaven Lab’s Annual Maglev Contest

Students from Robert Moses Middle School in the North Babylon School District won a grand total of six awards at Brookhaven Lab’s 22nd Annual Middle School Magnetic Levitation (Maglev) Contest, for which students designed and constructed mini magnetized vehicles to race on magnetized tracks in timed trials.

Center Moriches Middle School won five awards and Mineola Middle School and Albert G. Prodel Middle School tied, each bringing home three awards in the March 28 competition.

Inspired by the magneti-

cally suspended, guided, and propelled vehicles invented and patented in 1968 by Brookhaven Lab’s Gordon Danby and James Powell, the competition required students to design and construct model maglev vehicles according to engineering specifications.

Students recorded their planning process in “design briefs,” which contributed to the vehicles’ final scores. The other part of the score was earned on the track.

Although the magnetic field between the racing maglev vehicles and the tracks make the vehicles hover over the tracks,

the vehicles are not propelled using magnets. Thus, students had to design propulsion mechanisms to make the vehicles speed to their finishes.

Racing vehicles were specifically constructed for one of the five propulsion categories, including wind power, self-propulsion with a balloon, self-propulsion with another energy source, electric power, and gravity, in which vehicles were raced down an inclined track to test their efficiency in carrying pennies that represented passengers.

Vehicles in the “futuristic” and “scale model” categories

were tested on the gravity track for functionality but did not race. Competitors were awarded based on the strength of their design portfolios and their vehicle’s aesthetic appeal.

Each category had first, second, and third places, for which winning students received trophies in recognition of their achievements.

Approximately 180 students from 12 Long Island middle and junior high schools participated in the contest sponsored by BNL. The event was coordinated by the Lab’s Office of Educational Programs.

— Natalie Crnosija

HUB, SDVOB Small Business Supplier Showcase, 4/25

Products and services from Historically Underutilized Small Business (HUB), Service-Disabled Veteran-Owned Small Business (SDVOB) Companies to be featured

Lab employees who are responsible for purchasing activities are invited to a supplier showcase that will feature several local and national HUB and SDVOB companies. BNL will host this showcase on Wednesday, April 25, from 9 a.m. to 2 p.m. in the upper lobby of Berkner Hall. Reservations are not required. Products and services to be featured include: Bearings, hoses, valves, pumps, etc.; Computer equipment and supplies; Construction services; Furniture; Instruments; Information technology services; Office supplies; Pipes, fittings, etc.

TIAA-CREF One-on-One Retirement Counseling

A TIAA-CREF consultant will visit BNL on April 18, May 9, and May 29 to answer employees’ questions about their financial matters.

For an appointment, call 1-800-732-8353 or go on-line at www.tiaa-cref.org/bnl and select “set up a meeting.”

Defensive Driving Course: Two Parts, 4/19 & 26

The next six-hour Defensive Driving (Point & Insurance Reduction) course will be held in two parts on consecutive Thursdays, April 19 and 26 in the Brookhaven Center South Room. The course will be from 6 to 9 p.m. on both nights. The course is open to BNL, BSA and DOE employees, BNL facility-users, contractors, guests, family members, and friends. The cost is \$33 per person. Preregistration is required. To register, call Ed Sierra, 821-1013, and leave a message. Or complete a New York DMV Approved Course Online for \$39.95 with discount (Use code: “SAVE10” for \$10 discount): www.lidrivsafe.com/.

BNL Golfers Alert! Golf Outing, 4/20

The BERA Golf Association will be hosting a golf outing at Pine Hills Golf Course on Friday April 20th. All BNL golfers are welcome. The cost of the outing is \$60, which includes green fees, cart, and \$10 that will go toward gift certificate prizes in the pro shop for the winning teams. Prizes will be given for closest to the pin on the par threes and a most accurate drive contest. A scramble format will be used for the outing. After the outing, players can have dinner at JC’s Restaurant in the clubhouse. To sign up for the outing contact Jeff Williams, Ext. 5587 or jwilliams@bnl.gov.

Golfers Wanted — Join BERA Golf Association

The BERA Golf Association is now accepting applications for the 2012 BNL Golf League. New members are welcome. For more information about the league visit the website at www.bnl.gov/bera/activities/golf/ or contact Jeff Williams at Ext. 5587 or jwilliams@bnl.gov.

Dr. Mow Shiah Lin Scholarship Call for applications by BNL’s Asian Pacific American Association

Applications are now being accepted for the eighth Dr. Mow Shiah Lin Scholarship sponsored by the Asian Pacific American Association (APAA) at BNL. The annual \$1,000 scholarship was initiated to honor the late Brookhaven Lab scientist for whom it is named.

In memory of Lin’s distinguished research, achievements, and inventions, the scholarship is granted each year to an Asian immigrant with a student visa who is matriculating toward a doctorate in environmental & energy technology, biology, or chemistry at an accredited institution of higher education on Long Island, including Brooklyn and Queens.

Brookhaven Lab scientists and members of APAA choose the winner. The selection criteria include academic records, references, career goals, and other factors deemed appropriate by the selection committee. The scholarship is granted independent of financial need. Applications and more information can be obtained by calling Brookhaven Lab’s Diversity Office at 631 344-6253, or by sending an e-mail to sge@bnl.gov,

or by visiting the APAA website, www.bnl.gov/bera/activities/APAA/default.asp. The application deadline is May 31, 2012.

Mow Shiah Lin began his career at BNL in 1975 as a postdoctoral fellow, and he advanced to co-lead a research team working with an environmental remediation company to use selected bacteria to convert toxic oil wastes, such as used motor oils, into useful products.

In 2001, Lin shared an R&D 100 Award, given by *R&D Magazine* to honor the top 100 technological achievements of the year, for a technology to recover silica from geothermal brine. In 2003, he was posthumously nominated for the Lemelson-MIT Lifetime Achievement Award, which recognizes outstanding individuals whose pioneering spirit and inventiveness throughout their careers have improved society and inspired others.

Lin died suddenly due to a brain aneurysm at the height of his career in 2003, and his fellow employees, friends, and family contributed funds to establish the scholarship.

Take Our Children To Work, 4/26

Employees and guest are invited to bring their daughters and sons to work on Thursday, April 26. Registration forms were sent through interoffice mail. You can also sign up online at <http://1.usa.gov/HdC6d1>.

Note: This shortened web address will direct you to the form, which is hosted on the Lab’s website.

AdoptaPlatoon Plant Sale, 5/10 and 11

Save some plant-buying this spring until May 10 and 11, when the Brookhaven Veterans Association’s AdoptaPlatoon members will hold a plant sale — just in time for Mother’s Day on May 13. The sale will be held 11 a.m. until 1 p.m. in Berkner Hall parking lot, or in Bldg. 400 lobby in case of rain. All proceeds will go towards supporting troops in Afghanistan.

CALENDAR

Friday, 4/13

Research Library Open House
10 a.m.-3 p.m. Research Library. Concluding celebrations for National Library Week. Refreshments.

— WEEK OF 4/16 —

Mon.-Fri., 4/16-20

***Earth Week Events**
See agenda, p.4.

Tuesday, 4/17

BSA Distinguished Lecture
4 p.m. Berkner Hall. “Starving the Ocean: Why We Should Leave Small Fish in the Sea,” talk to be given by Ellen Pikitch of the Institute for Ocean Conservation Science at Stony Brook University’s School of Marine and Atmospheric Sciences. All are welcome to this free event, sponsored by Brookhaven Science Associates. Visitors to the Lab of 16 and older must carry photo I.D.

Thursday, 4/19

***Defensive Driving, Part I**
6-9 p.m. Brookhaven Center. See left. (Part 2: 4/26)

— WEEK OF 4/23 —

Monday, 4/23

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.

Wednesday, 4/25

477th Brookhaven Lecture
4 p.m. Berkner Hall. Talk by Roman Samulyak, Computational Sciences Center, on mathematical models and supercomputer codes simulating complex systems. Refreshments will be on hand before and after the talk. All are welcome to this free event. Visitors to the Lab of 16 and older must carry photo I.D.

Thursday, 4/26

***Take Our Children to Work Day**
Register by form sent through inter-office mail or <http://1.usa.gov/HdC6d1>. See left.

First ‘Particles’ Circle NSLS-II Ring
11:30 a.m.-12:30 p.m. NSLS-II Ring. All the Lab community is invited to walk all the way around the half-mile ring. Details to come.

Arrivals & Departures

— Arrivals —

John Benante	C-AD
Ruchik Bhatt	Photon Scis
Chung-Pin Chou	CMPMS
Kevin Kobasiuk	C-AD
Joseph Sanfilippo	C-AD

— Departures —

Jin-Ying Gou	Biology
Michiko Miura	Medical
Ruben Reininger	Photon Scis

New Dance Class Sessions Begin, 4/25

All are invited for dance classes on site through the BERA Ballroom Dance Club. The next five-week session begins Wednesday, April 25, in the Brookhaven Center North Ballroom, Bldg. 30.

The cost is \$40/person for five classes. New beginners can try one class before paying.

5:30-6:30 p.m. Beginner Waltz
6:30-7:30 p.m. Viennese Waltz
7:30-8:30 p.m. Intermediate Samba

For information, contact Arup Ghosh, Ext. 3974, or Vinita Ghosh, Ext. 6226.



New BERA Board members: (from left) John Addressi, Cristoforo Caccavale, Christine Herbst, and Terry Maugeri

Congratulations to Four New BERA Board Members

The newly elected Brookhaven Employee Recreation Association (BERA) Board members — John Addressi, Cristoforo Caccavale, Christine Herbst, and Terry Maugeri — will be starting their four-year terms in May. They will join current Board members Linda Barrett, Ruth Comas, Augie Hoffmann, and Sue Wells.

The Board and BERA members thank outgoing Board members

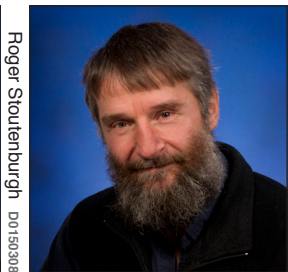
Phyllis D’Avanzo, Rick Wagener, Pat Flood, and Helen Savage for their years of service.

Said Christine Carter, who is BNL’s Quality of Life, BERA, and Recreation Supervisor, “We appreciate everyone who put their name in the hat for these elections, which happen every two years. Elections really do make a difference!

“The BERA Board members

volunteer a great deal of time and thought in what will make BNL a great place to work, and what will make BNL employees, guests, users and their families happy.” continued Carter. “Some will concentrate on BERA Club activities, while others focus on children’s activities, day trips, sports or art related events. Suggestions are always welcome! Contact Board member with your ideas.”

Thanks to outgoing BERA Board members: (from left) Phyllis D’Avanzo, Rick Wagener, Pat Flood, and Helen Savage



Classified Advertisements

Current job openings and a statement of job placement policy at BNL are available on the homepage at www.bnl.gov/HR/careers/. To apply for a position, go to www.bnl.gov and select “Search Job List.” For more information, call Ext. 2882.

Motor Vehicles

12 SUZUKI BOULEVARD – 300 mi. Motorcycle, C50 Model, brand new. \$4,875. Tony, 258-5986.
08 JEEP GRD CHEROKEE LAREDO – 40K mi. V6, excel cond, dealer maint, orig owner, avail mid June. \$19,000 neg. 995-0816 10am-7pm, jingostar1980@hotmail.com.
02 CHRYSLER SEBRING – 64K mi. convertible, V6-2.7l, a/c, all pwr, CD, leather seats, silver-blue. \$5,300 neg. Jim, Ext. 2432, 516-242-7554 or higgins@bnl.gov.
02 HYUNDAI SONATA GTS – 80K mi. loaded, blue exterior/black int. \$5,000 neg. Lorraine, 671-3661.
01 HARLEY DAVIDSON SOFTTAIL DUECE – 4.25K mi. Vance & Hines Pipes, lots of chrome, orig mi. \$9,000 neg. George, 375-4400 or ggottschalk@gmail.com.

Boats

25’ SEARAY SUNDANCER – ‘98 excel cond, 5.0 Bravo III Mercruiser Eng, new in ‘03, Bimini Top/Camper Canvas/Cockpit Cover, lots to list, photo. \$19,500 neg. 495-1184 or marescam@optonline.net.
25’ TANZER 1986 SHOAL DRAFT SAIL-BOAT – 2 cabin, lg cockpit, 9.9 Evinrude Motor, RF jib, 2 reef main, 4 winches, line stoppers, head galley, ice box, radio, depth finder, GPS. \$6,250 neg. 909-1801.
23’ MACGREGOR VENTURE – retractable keel, needs int. woodwork re-done, sails, mast gd shape, hull excel cond, trailer incl. \$3,000 neg. 319-0197, kvaz@bnl.gov.
30’ O’DAY SAILBOAT – 1980 – Wheel steering, Universal 16hp diesel, sleeps 6, pressure water, head/shower, roller furler, great cond, \$13K/neg, Ready to launch. John, Ext. 3302 or muller2@bnl.gov.

Furnishings & Appliances

BOY’S BEDROOM SET – Gray formica, platform bed w/drawer, mattress, head board, 6 drwr dresser, desk top, hutch w/3 bottom drwrs & book case. \$400. Leo, Ext. 3103.
DISHWASHER – GE white, excel cond, \$50/obo. Karen, Ext. 4432.
FREEZER – Imperial, heavy duty commercial, 20.8 cu ft, excel cond/\$750. 678-3299 or dgordon@bnl.gov.
HOUSEHOLD ITEMS – lg entertainment center for TV, 2 mtching side bookcases, pine, \$350; 2 Buffet lamps, brushed gold \$30, folding Lifetime picnic table/\$100. Maryellen, Ext. 3328 or mmccabe@bnl.gov.
REFRIGERATOR & TV – ice & water from door; side by side; white; 34 3/4w x 32d x 68 1/4h, \$250; Projection TV, PCL5415R, Samsung 64, incl remote, owners instructions, \$400/obo. 404-8109.
UPDATE MOVING SALE – reduced prices, new items: Whirlpool w/d/\$200/ea, folding table, book shelf, microwave, etc, photo, price: <http://tinyurl.com/7ffo3jf>. 995-0816 10am-7pm, jingostar1980@hotmail.com.

Audio, Video & Computers

APPLE ITOUCH – 4th generation, white, 8gb, excel cond, ask/\$150. Beth, Ext. 4144 or gilman@bnl.gov.
DELL PC – DIM E520 ‘07 w Intel Core 2, 4 GB RAM, 16X DVD ROM, 16X DVD +/-RW, TV ready, no hard disk, \$175. David, Ext. 2604.
PLAYSTATION 3 – fairly new, PS3 owned less than a yr, comes w/2 wireless controllers, bluetooth, 2 yr warr, 8 games, ask/\$450/neg. Shayn, 353-5943.

Sports, Hobbies & Pets

AEROPILATES – 55-4050, incls Aero Pilates Performer Elevation Stand/\$300. Eileen, Ext. 3995 or elevine@bnl.gov.
AQUARIUM – 10 gal w/black iron stand, screen lid, for sm critters/hermit crabs/reptiles/amphibians w/wood/rock decorations if interested, ask/\$15. sbronson@bnl.gov.
GOLFERS WANTED – The BERA Golf Association is looking for golfers to join our team league. Play begins the week of April 23rd. For more info visit the BERA Golf Webpage. Jeffrey, Ext. 5587 or jwilliams@bnl.gov. See also p.3.
HONDA 50 R DIRTBIKE – Hardly used. Needs work. \$450.00 neg. Has training wheels for dirtbike. \$50.00. Dirtbike is red. Pic available. Maryellen, Ext. 3328 or mmccabe@bnl.gov.
PUPPIES – Labs, 12 left, they have 1st round of shots and ready to go, for more info pls call. Vicky, 455-6007.
WET SUIT – sm-med, barely used, never in saltwater, 7mm, incl 2-pc suit, mask, boots, fins, photo avail, \$100. hughes@bnl.gov.

Happenings

DINNER - DANCE – PAIC social event at the Port Jeff, Polish Hall, 35 Jayne Blvd PJ. 5/5/12, 7-11pm \$30pp inclcs steak dinner live music unlimited tap beer, wine & soda, more info call. Mark, Ext. 2574, 928-5684 or sardzinski@bnl.gov.
DINNER/SHOW OUTING – to see Jonah at Sight n Sound Theatre in PA on Sat., Oct. 13, 2012. Deposits by May 30, Call for details. Kim, Ext. 2896 or khayes@bnl.gov.
SPRING BERA GOLF OUTING – All golfers are invited to our spring outing at Pine Hills on Friday April 20th. Cost is \$60, that includes cart and \$10 towards prizes. To register contact Jeff. Jeffrey, Ext. 5587 or jwilliams@bnl.gov.

Farewell Gatherings

SHERYL GOLDEN – Celebrating Sheryl’s retirement at Ladakins on 4/26@5:30, RSVP w/\$35, pymt by 4/13. Karen, Ext. 4432 or liebermann@bnl.gov.
MEMORIAL CELEBRATION OF VICKI MCLANE’S LIFE – Saturday, May 12, 2-5 p.m. at Shoreham Village Hall. Peter Kahn, husband of the late Vicki McLane, will host the event for family and friends. All are invited to attend, share memories.

Miscellaneous

HIGH CHAIR – Chico, v/gd cond, blue / white ask/\$60. Scott, sbronson@bnl.gov.
MAC TOOLS TOOL BOX – Mac Tech 1000 – Silver Hardly used \$1500.00. Maryellen, Ext. 3328 or mmccabe@bnl.gov.
TOYS – Denny or No Deal Board Game/\$5, Handy Manual Workbench & Tools/\$40, Smartcycle & 2 games/\$30. Ext. 7918.

TURBOTAX SOFTWARE – Home & Business 2011 Federal and State. \$35. Rich, Ext. 7294 or gambella@bnl.gov.

Wanted

ADOPT-A-PLATOON – Monetary donations gratefully accepted towards mailing shipments to our platoon stationed overseas and to send goodie packages to BNL family members. Thank you. Joanne, jrula@bnl.gov.
BNL FAMILY MEMBERS IN MILITARY – If you have a family member that has been deployed overseas, please contact Adopt-a-Platoon so we may send them a goodie package. Joanne, jrula@bnl.gov.
HOUSE – nice 4-5 bdrm, preferably on the East End, in safe area for kids. 445-4027.
MATTRESS - QUEEN – need q/mattress w/box spring and headbrd, thank you!. Rick, Ext. 3005 or rbuono@bnl.gov.

Lost & Found

CAT – Young-looking cat found in BNL apartment area on April 5. Silver & black tabby. Unafraid of people and extremely friendly. Must have belonged to someone. Ext. 2913 or guida@bnl.gov.

For Rent

WEEKI WACHEE, FL – priv ranch on Gulf, 70m Orlando, 45m Tampa, fly Islip direct, near beach/tennis/park, SW architecture, 3/bdrm, 2/bath, d/r, t/p, 2gar, ipp in lanai, fruit trees, see review.oktane.net/House-Tour. \$450/wk. 344-5537.
MIDDLE ISLAND – “NEW” bsmt apt, 4 mi to Lab, 1 bdrm, kitchen/lr, cac, priv ent, off-st prkg, no smkg/pets, 1/mo sec req’d, inclcs all util, phone, cable, use of w/d. \$925/mo. 205-9252.
RIDGE – 1 bdrm, sep ent, prkg, full bath, l/r, kitchenette, quiet, priv, mins to lab, incs all. \$975/mo. Lynne, 924-0002.
RIVERHEAD – 3bdrm, 2 full baths, Western Ranch, kit, dw, l/r, d/r, w/d & gar, new windows & furnace, quiet area, lg pty on cds, nr shops, no smkg/pets, refs & cc reqd, 1/mo sec+util. \$2,250/mo. McGill, 512-6470.
SHIRLEY – 3/4 bdrm main hse, nice sections of Shirley, l/r d/r and kitchen 1 bath. A/C, full bsmt, w/d, incl fuel/water/landscaping, off st prkg. \$2,000/mo neg. John Esposito, 398-2065 or bnangel35@msn.com.
WADING RIVER – spacious new 1 bdrm apt, part furn, quiet area, cable/int/utills incl, no smkg/pets. \$950/mo. 838-5879.

For Sale

WEEKI WACHEE, FL – priv ranch on Gulf, 70m Orlando, 45m Tampa, fly Islip direct, near beach/tennis/park, SW architecture, 3/bdrm, 2/bath, d/r, t/p, 2gar, ipp in lanai, fruit trees, see review.oktane.net/House-Tour. \$125,000 neg. 344-5537.
JAMESPORT, NY – 3 level 3000 sq ft condo-31/2 baths-cent a/c-2 car gar-hot tub-walk to priv.beach-3 zone baseboard heat-tennis-pool-brick patio-deck- 20ft hi ceiling great room- many upgrades. \$699,000 neg. Carmine, Ext. 5101.
RIDGE, NY – 4-bdrm Colonial, new roof, windows, kitchen, baths, crown molding, wood floors, fireplace in den, large bdrms, 2-car garage. \$374,990. Open house Sunday, April 22. Ray, 344-3541.



During Earth Week 2012, Lab employees can learn more about BNL’s alternative energy source research, on-site pollution prevention, and more. For more information, see www.bnl.gov/earthweek/.

4/16, 17: BNL Office Swap

10:30 a.m. to 12:30 p.m. Berkner Hall, Room D. Support BNL’s House-keeping Standard — clean out your office, conference rooms, and supply closets. Bring unwanted supplies to Berkner Hall, Room D, and swap or take what you need — for free! Supplies not swapped for use at the Lab will be recycled. Contact Francine Donnelly, Ext. 3381.

4/16–20: Earth Day Sustainability Quiz, With Giveaways

Take the Earth Day Sustainability Quiz from www.bnl.gov/earthweek/ and be eligible to receive an Earth Day giveaway, including an Eton FRI60B hand-powered radio.

4/25–29: Wildlife and Student Art Displays

11:30 a.m.-1:30 p.m. Berkner Hall lobby. Photos of BNL wildlife, environmental posters created by local elementary schoolchildren, and the Lab’s Operational and Research Sustainability Poster series.

4/16–20: Environmental Pledge Tree

4/16-18, 11:30 a.m.-1:30 p.m. Berkner Hall lobby, 4/19-20, 11:30 a.m.-1:30 p.m. Research Support Bldg., 400. Pledges will focus on understanding how to support BNL’s Site Sustainability Plan. Donations from pledges placed on the tree will be sent to the Foundation for Ecological Research in the Northeast (FERN), a not-for-profit organization that conserves, protects, and enhances habitats in the Northeast through research, education, and dissemination of information. Also, great giveaways! For more information, contact Jason Remien, Ext. 3477.

4/17: Special Event: Long Island Earth Summit

4/17: Hybrid Vehicle Display

10 a.m.-2 p.m. Berkner Hall circle. See what’s new in the world of hybrid vehicles from local car dealers. This event is open to the public. Employees are welcome to invite family and friends. For more information, contact Jeff Williams, Ext. 5587.

Workshops, Panel Discussion, on Environmental Topics

11:30 a.m. Berkner Hall lobby and auditorium. BNL’s Community Relations Office has partnered with Citizens Campaign for the Environment to host this event, which is free and open to the public. Visitors to the Lab of 16 and older must carry a photo I.D. See a solar research poster display in Berkner Hall lobby. At 1 p.m., a series of workshops will be held on “Toxic Tides,” “Long Island’s Energy Future,” “The Hydrogeology of Long Island,” and “Smart Planning.” Preregistration for the workshops is requested at 11:30 a.m. in Berkner, or earlier at www.citizenscampaign.org/events/long-island-earth-summit/2012/index.asp. A panel discussion on Long Island’s environmental challenges will follow at 3 p.m.

4/17: BSA Distinguished Lecture, 4 p.m.

4-5 p.m. “Starving the Ocean: Why We Should Leave Small Fish in the Sea.” This free lecture, sponsored by Brookhaven Science Associates, will be given by Ellen Pikitch of the Institute for Ocean Conservation Science at Stony Brook University’s School of Marine and Atmospheric Sciences. All are welcome.

4/18: Environmental Vendor Fair

11:30 a.m.-1:30 p.m. Berkner Hall lobby. Learn about “green” products, energy, and ecological conservation from many local vendors. Plus, learn about ride-sharing. Contact: Ruth Comas, Ext. 3545.

4/19: Art Contest Awards Ceremony

4 p.m. Berkner Hall. Join us for the annual art contest awards ceremony for children from local schools. For more information, contact Karen Ratel, Ext. 3711.

4/20: Sustainable Bike Tour — Includes Solar Array

Noon. Meet at the gazebo east of the NSLS-II construction site. Bring your bicycle and helmet. Take a guided bicycle tour and hear from experts about the largest solar power array in the Northeast U.S., the Lab’s research on ecological impacts of the array, and plans to develop a solar energy research array on the BNL site. A 2.5-mile direct route and 5-mile scenic route will depart from the gazebo at noon. The ride and presentations should take about one hour.

4/29: Hecksher State Park Spring Festival

10 a.m.-4 p.m. Join Lab staff at Hecksher Park to learn more about wildlife on Long Island, groundwater models, conservation, household hazardous wastes, and more. Bring your family and friends and show your support for BNL and Earth Day.