

Pioneering Supercomputer QCDDOC Retires, Regenerates in 'Next-Generation' QCDCQ

On May 26, 2005, a new supercomputer, a pioneering giant of its time, was unveiled at BNL at a dedication ceremony attended by physicists from around the world. That supercomputer was called QCDDOC, for quantum chromodynamics (QCD) on a chip, capable of handling the complex calculations of QCD, the theory that describes the nature and interactions of the basic building blocks of the universe. Now, after a career of state-of-the-art physics calculations, QCDDOC has been retired — and will soon be replaced by a new “next generation” machine.

Great Start

QCDDOC was a “special purpose” machine dedicated to fundamental physics. Among its prime users were the scientists of the RIKEN BNL Research Center (RBRC) at BNL, for their studies of the physics taking place at Brookhaven’s Relativistic Heavy Ion Collider (RHIC) and other forefront physics. Funded by RIKEN, the Institute of Physical & Chemical Research in Japan, with infrastructure support from DOE’s Office of Science, QCDDOC was built by BNL, Columbia University, IBM, the RBRC, and the University of Edinburgh.

Most specifically, QCDDOC was designed to use lattice gauge theory — a method of approximating space-time in a lattice and then computing the dynamics of quarks and gluons, the fundamental constituents of matter, by their theoretical positions on the lattice. One of the founders of this approach is BNL’s Michael Creutz.

The \$5-million QCDDOC, which took three years to design and build, had 10 teraflops (Tflops) of peak computing power and could perform 10 trillion arithmetic calculations per second. When installed, it took pride of place over BNL’s 1998 supercomputer called QCDCSP — for quantum chromodynamics on digital signal processors — which had 0.6 Tflops at peak speed. Together, these two supercomputers provided comparable or greater computing resources for lattice QCD than were available anywhere else in the world.

In front of the disassembled parts of the now retired giant supercomputer QCDDOC are: (front, from left, holding the motherboard) Norman Christ, Columbia University (CU); Robert Mawhinney, CU; and Taku Izubuchi, RIKEN BNL Research Center (RBRC) and BNL Physics Department High Energy Theory group (HET); with (from left) Heng-Tong Ding, BNL Physics Lattice Gauge Theory group (LGT); Hiroshi Ohno, LGT; Frithjof Karsch, LGT; Taichi Kawanai, RBRC and HET; Nicholas Samios, RBRC; Masakiyo Kitazawa, Osaka University; Michael Creutz, HET/LGT; Swagato Mukherjee, LGT; Christoph Lehner, RBRC; Amarjit Soni, HET; Chulwoo Jung, HET; Tomomi Ishikawa, RHIC and RBRC; Qi Liu, CU; Eigo Shintani, RBRC.

“With QCDDOC installed, we produced a series of ‘firsts’ in calculations that shed light on much of the breakthrough physics at RHIC.”
— Nicholas Samios

Surpassing Expectations

“We expected great things from QCDDOC, and it surpassed all expectations,” said Nicholas Samios, RBRC Director. “It has been the workhorse of three groups at BNL — the High Energy Physics Theory Group, the Lattice Gauge Theory Group, and the RBRC Computing Group that together have established BNL as a world leader in the QCD field. With QCDDOC installed, we produced a series of ‘firsts’ in calculations that shed light on much of the breakthrough physics at RHIC as it explores the fundamental properties of matter and conditions of the early universe.”

Taku Izubuchi, Physics Department, a leader of the RBRC Computing Group using QCDDOC, explained that until 2008 the entire lattice physics program of RBRC was carried out on the QCDDOC and QCDCSP supercomputers.

“Through the capabilities of these machines, we developed successful techniques to study kaon physics, nucleon physics, hadron electromagnetic effects, and other important problems in low energy QCD,” he said.

QCDDOC highlights include: **first** lattice QCD computation with chiral quarks • **first and only** lattice QCD computation including both dynamical chiral quark effects and electromagnetism • **first and only** direct computation for a long-standing problem in certain decays of kaon particles • and **many more**

RHIC/ATLAS Computing Facility Team Hailed by DOE

One of nine groups to receive Secretary’s Achievement Honor Award

DOE Secretary Steven Chu has selected the staff of the RHIC/ATLAS Computing Facility (RACF) at BNL — which manages vast amounts of data for two large-scale global physics experiments — as a recipient of the Secretary’s Achievement Honor Award.

The Honor Awards represent the highest internal non-monetary recognition given to DOE employees and contractors for providing exceptional service to the Department and the American people. The Achievement Honor Award is given to groups or teams for their outstanding accomplishments and contributions. The RACF team is one of nine groups and several individuals recognized this year at a ceremony scheduled for October 27 at DOE headquarters in Washington, D.C. The RACF is funded by the DOE Office of Science.

The award recognizes the RACF team’s “outstanding performance” in serving the experimental physics programs at BNL’s Relativistic Heavy Ion Collider (RHIC) — where scientists from around the world



Secretary Chu
Photo courtesy of DOE

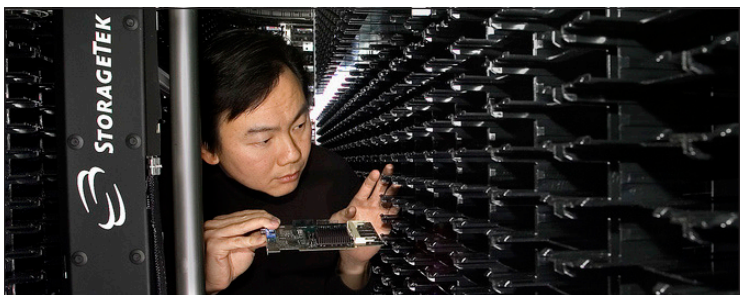
explore fundamental forces, the properties of matter, and the conditions of the early universe by colliding heavy ions such as gold — and the ATLAS experiment, located at the Large Hadron Collider at CERN, the European particle physics laboratory, which aims to discover why some particles have mass and the source of dark matter.

“The employees recognized have gone above and beyond the call of duty, demonstrating an exceptional commitment to public service,” said Secretary Chu. “Their dedication, knowledge and skills have served to strengthen our nation’s economic and energy security and the work of the Energy Department.”

As stated in the Honor Awards program, “The accomplishments of this staff have allowed scientists to perform computations of unprecedented scope, and coordinated data flow and management for thousands of scientists in 38 countries from 172 institutions around the world.”

In addition to providing all data storage and access for...
See *DOE Award* on p. 2

Below: RHIC/ATLAS Computing Facility staff at BNL provide support 24/7.



Roger Stoulenburgh 0061205



Joseph Rubino 0389611

BNL Hosts 16th Annual Pine Barrens Research Forum

The Long Island Pine Barrens are host to a variety of plants and animals, and the topic of the annual Pine Barrens Research Forum at BNL.

The 16th Annual Pine Barrens Research Forum took place at Berkner Hall on October 6 and 7. Each October since 1996, the Forum has brought together scientists, students, and environmentalists from around New York to discuss the ecology of the Long Island Pine Barrens. This year’s event, which included an eclectic mix of research, history, and conservation, was sponsored by BNL, the Central Pine Barrens Commission, the L.I. Groundwater Research Institute at Stony Brook, and the Foundation for Ecological Research in the Northeast.

The first day was devoted to a series of talks from researchers working in the Long Island area, particularly in the Central Pine Barrens forest — the largest

continuous woodland on Long Island, and a site of high ecological importance. The Long Island Pine Barrens has the greatest diversity of species anywhere in New York State. Topics included groundwater, Lyme disease, and the history of the American chestnut on Long Island.

Berkner Hall lobby was converted into a showcase for a variety of research projects, many of which have taken place on Lab property. Several studies focused on the wildlife at Brookhaven, including box turtles, southern flying squirrels, and bats.

Several conservation-minded organizations, including BNL’s own Open Space Stewardship Program, founded and run by...

See *Pine Barrens* on p. 2

Joint Photon Sciences
Institute Inaugural
Seminar, 11/8

‘Materials Analysis at
Large Scale Facilities’

The Joint Photon Sciences Institute will hold its inaugural seminar on Tuesday, November 8, at 2 p.m. in the Physics Seminar Room S240, Stony Brook University. All are welcome. Ian Robinson of the London Centre for Nanotechnology, UCL and Research Complex at Harwell will talk on “Materials Analysis at Large Scale Facilities.”

As Robinson will discuss, large scale facilities, such as the new National Synchrotron Light Source II under construction at Brookhaven, open up opportunities for probing deeper into the physical properties of materials.

Robinson will explain the work of his group in developing the coherent x-ray diffraction method, which is an effective way of imaging crystalline nanoparticles and nanostructures in three dimensions. Results observed from the methods they used explain why nanocrystals have a different “equation of state” from bulk condensed matter.

November: Veterans
Awareness Month

The Brookhaven Veterans Association (BVA) and the Employee Assistance Program (EAP) are co-sponsoring a series of talks and a fundraising event to mark Veterans Awareness. All are warmly invited to participate, especially in generous donations to the homeless vets shelter. Dates to remember are:

Monday, 11/7, Noon, Berkner Hall, Room B. A lecture on “Long Term Care and Estate Planning for Veterans,” will be given by Nancy Burner, Esq., Setauket, NY.

Thursday, 11/10, Noon (promptly), Brookhaven Center (Bldg. 30) parking lot. BVA Ceremony in partnership with BNL Lab Protection Division.

Monday, 11/28, Noon, Berkner Hall, Room B. “Update on Veterans Benefits & Advocacy” from Suffolk County Veterans Services Agency (SCVS).

Monday, 12/5, Berkner Hall lobby. “1-1-1 Fundraising Event” for the SCVS Homeless Vets Shelter. Please bring 1 used clothing item for men, \$1, and 1 item of non-perishable lunchtime food or toiletries. All donations very gratefully accepted!

Wish List of items to give: paper products: paper plates, toilet paper, etc.; laundry soap and bleach; wind-up alarm clocks; men’s socks, underwear, shirts, sweaters, heavy jackets, etc.; personal hygiene products: deodorant, razors, etc.; towels, washcloths; large storage containers; coffee, sugar, creamer; gift certificates to chain restaurants; home items: beds, sheets, night stands, used tools, computers, electronic items. Donated items will be transported to the Vets shelter in Yaphank.

Arrivals & Departures

- Arrivals —
Purushottam Dixit..... Biology
Alyssa PilkingtonITD
— Departures —
Michael Bagley Site Resources
Ashutosh Gupta..... Env Scis
Joseph Peters..... Site Resources
Ruth Pietri Photon Scis



Participants in BNL’s English for Speakers of Other Languages program with Coordinator Jennifer Pieniazek (eighth from right) celebrate the program’s ninth anniversary.

On September 30, more than 40 BNLers and their family members met in the Recreation Hall for the ninth annual English for Speakers of Other Languages (ESOL) Program recognition celebration.

“BNL attracts some of the brightest people and their families from around the world. By welcoming those who don’t speak English to learn grammar, reading skills, and American culture, ESOL classes help them get acclimated to life at Brookhaven and in the United States,” said ESOL coordinator Jennifer Pieniazek of the Quality of Life Office.

During the ceremony, ESOL students and volunteer teachers Izaskun Atorrasagasti, Ksenia Kayran, and Natascha Lehner were recognized for their participation in ESOL programs. Jim Higgins of the Nuclear Science & Technology Department received special recognition for nine years of tutoring service with

the program.

“It can be intimidating to live in a country that does not speak your native language,” Yi Zhang said during the ceremony. She is an electrical engineer from China at the Lab’s Relativistic Heavy Ion Collider, and an ESOL student. “By participating in ESOL classes, we not only have more proficiency in the language, but also are more confident in talking.”

“Sometimes, people couldn’t understand what I was saying, and ESOL classes have helped me improve my pronunciation,” said Alba Vidal Sandra, a postdoc from Venezuela in the Chemistry Department. “Furthermore, it has been a very nice experience to meet people from different parts of the world because, apart from learning English, we learn about others’ cultures.”

The ESOL program at BNL offers English classes on site for speakers of all abilities on several

days and times each week. They hone their linguistic skills with tongue twisters, pronunciation exercises, grammar activities, reading tasks, and presentation assignments. Scientists can get advice on grammar and pronunciation before giving a talk. In addition, ESOL students are invited to learn about American culture by participating in activities such as an annual Thanksgiving dinner and strawberry picking at a local farm.

The ESOL program also offers English-speaking BNLers the chance to learn French, Russian, and Spanish in classes that are taught by volunteers.

More information about the program — including class schedules, the registration form, and other opportunities to practice speaking other languages — is available from the ESOL website www.bnl.gov/esol/default.asp or by contacting esol@bnl.gov. — Joe Gettler

DOE Award on p. 2

...research at RHIC, the RACF serves as the sole Tier-1 computing facility for ATLAS in the U.S., and is the largest ATLAS computing center worldwide. When both RHIC and ATLAS are conducting research, data streams into the RACF at a rate of 4 to 5 gigabytes per second. Some 12,000 computational processing units (CPUs) sift through 1.3 petabytes of data per day, store up to 50 terabytes on tape, and distribute a fraction of the processed data to collaborators around the U.S. and overseas. In 2010 alone, data collected from RHIC and ATLAS filled 7,000 tapes with the storage equivalent of 7 million CDs — a pile 10 miles high.

“Our staff has to make sure everything is running smoothly 24 hours a day, seven days a week, and we have a commitment to the scientific community to respond to any problems within two hours,” said Brookhaven computational scientist Michael

Ernst, who manages the RACF. “That is quite challenging given the complexity and the number of components we are running. But our team does whatever is required.”

The award description further notes that the RACF team’s dedication and commitment to excellence have resulted in “significant operational efficiencies and cost savings while continuing to improve the performance and capacity of the facility.”

Ernst explains that having one facility to manage the data from both research facilities with overlapping services has been one key to that success. And the savings in cost and efficiency will serve the scientific community for years to come.

“We’re continuing to add storage and computing capacity each year to keep up with the ever-growing data stream, and our staff is ready to meet the challenges of the future,” Ernst said. — Karen McNulty Walsh

QCDOC/QCDCQ from p. 1

For more, see *Physical Review D*78: 034503 (2009), arXiv:1106.2714.

Building on Past Success:
Blue Gene, QCDCQ

The success of these supercomputers at Brookhaven preceded the much larger commercial machines that exploited the same technology but had greater economy of scale. One example is the IBM Blue Gene/P established in 2008 at Argonne National Laboratory. The U.S. QCD group, of which RBRC is a part, used

nearly one-quarter of this huge supercomputer for its work.

Now, a new project is under way: RBRC, Columbia University, and BNL, together with the University of Edinburgh, a collaborator in the United Kingdom KQCD group, are developing an even more powerful supercomputer, QCDCQ (QCD with Chiral Quarks). This machine will have 75 to 150 Tflops of sustained speed — key to RBRC’s continuing international leadership in lattice QCD. The researchers will also work with colleagues at the T.J.

Reminder: BSA Scholarship
Entry Deadline Is 11/15

Fifteen scholarships in the amount of \$2,500 are offered annually by Brookhaven Science Associates to children of eligible BNL employees. All scholarships are awarded competitively and are renewable for up to a total of four years of study toward an academic degree. Selection is made by an independent committee appointed by Scholarship and Recognition Programs (SRP) of the Educational Testing Service.

Obtain application forms from the Human Resources & Occupational Medicine Division, Bldg. 400. Completed forms must be sent to SRP no later than November 15, 2011.

In addition, Stony Brook University will provide matching \$2,500 scholarships for all winners of 2012 BSA scholarships who are admitted to SBU and enrolled as full-time undergraduates subject to the terms and conditions of SBU Scholarships.

For more information, see the letter sent to all employees, and The Bulletin of September 16, 2011 (available online at www.bnl.gov/bnlweb/pubaf/bulletin/default.asp), or contact Leesa Allen, Ext. 2700, leesa@bnl.gov.

Off-site Conference on Emerging Technologies, 11/3

Attend a conference and expo — Emerging Technologies for a Smarter World — at the Hyatt Regency Long Island in Hauppauge on Thursday, November 3. Network with industry experts discussing cloud computing, visual computing, smart grid and smart energy, smart infrastructure, dynamic data analytics, and more. Details are at <http://sb.cc.stonybrook.edu/happenings/?p=5110>.

Watson Laboratory of IBM — the same colleagues who transformed the technology of QCDS and QCDOC into IBM’s Blue Gene product. So QCDCQ will benefit from advantages of IBM’s next-generation supercomputer, which will be available in prototype form at RBRC and Edinburgh between one and two years before larger installation of commercial versions are available.

When installed, these QCDCQ machines will provide the RBRC and the larger RBRC/UKQCD collaboration with spectacular

Pine Barrens from p. 1

...the Lab’s Office of Educational Programs, also had exhibits set up. Many of the exhibitors had arrayed their displays with natural items: turtle shells, animal pelts, and collections of plants native to Long Island.

The first half of the second day was devoted to a student symposium featuring joint research by students from Sayville High School, Patchogue-Medford High School, and the Central Pine Barrens Commission’s partner in Pisa, Italy, Migliarino-San Rossore-Massaciuccoli (MSRM) Region Park.

Finally, the forum ended with a field trip to Hubbard County Park, the only place where the Central Pine Barrens intersects the Peconic Bay — making it an ecologically unique place on the Island, bringing together species from both habitats to create a unique mix found nowhere else on the Island.

In his closing remarks, Tim Green, BNL’s Cultural and Natural Resource Manager, remarked on the lack of a catchphrase for this year’s forum. “We just couldn’t find anything that would fit all the topics,” he said. “But the Pine Barrens are a very eclectic ecosystem, and in that way, I think having such an eclectic mix of topics made this year’s forum a success.” — Kenrick Vezina

In Memoriam

John Coccorese, whose first link with BNL was as a job shopper, became a guest senior drafter for two years from May 20, 1991, returned to the Plant Engineering Division as a senior designer on April 10, 1995, left the Lab as a design engineer on August 19, 2008, and died on September 15, 2011. He was 55.

Benefits Open Enrollment Begins Tuesday, 11/1

By Denise DiMeglio, Manager, Benefits

Open Enrollment for medical and dental benefits, reimbursement accounts (health care, dependent daycare, and transit commuter), and the vacation buy plan begins Tuesday, November 1, and continues through Friday, November 18. During this time, eligible employees may add or drop medical and/or dental coverage, change from one medical or dental plan to another, add/drop family members covered, and/or sign up for the reimbursement account(s) and the vacation buy plan. All changes made during the Open Enrollment period are effective January 1, 2012. Our goal is to provide comprehensive, competitive, and flexible benefits as an important and meaningful part of employment at BNL.

Each Brookhaven Science Associates, LLC (BSA) employee will receive a 2012 BSA Benefits Program booklet for Open Enrollment by interoffice mail this week. Information also will be mailed to retirees and participants on long-term disability. This will serve as your reference guide, as it contains essential items to consider when making elections, comparing available benefit programs, and understanding costs. The guides are also available on the Benefits Office Web page.

What changes do you need to know about?

Please read the Open Enrollment materials carefully as they contain important information for you and your family. The following highlights summarize important plan points and changes that will be in effect as of January 1, 2012:

- Two medical plans will be available to employees. They are: CIGNA Preferred Provider Organization (PPO) and Vytra Exclusive Provider Organization (EPO). Aetna HMO and HIP HMO will be eliminated as a result of low enrollment. Participants in Aetna HMO and HIP HMO should review their

options and select a different medical plan for January 1, 2012.

- Vytra PPO will change to Vytra EPO. An EPO is similar to an HMO but without the need to select a primary care physician (PCP) or obtain referrals to specialists. The Vytra PPO and EPO networks of providers and facilities are the same; however the EPO does not provide out-of-network coverage.
- In addition, the following Vytra in-network provisions are being revised. The office visit co-payments will increase from \$20/\$30 (PCP/specialist) to \$25/\$40. There will be a per-visit co-payment on hospital (facility) charges (\$100 if not admitted; \$500 if admitted). Hospital (facility) charges will continue to be covered at 100 percent after the per-visit co-payment. This co-payment does not apply to outpatient services, but does apply to emergency room services and hospital admissions.
- CIGNA's coverage has several changes for out-of-network providers and facilities. (These changes do NOT apply for in-network providers and facilities.) The annual deductible will increase from \$500/\$1,500 (individual/family) to \$1,000/\$3,000. Coinsurance will decrease from 80 percent of Reasonable & Customary (R&C) to 70 percent of R&C. The annual out-of-pocket maximum will increase from \$2,500/\$7,500 (individual/family) to \$3,500/\$10,500.

What will coverage cost me in 2012?

BNL has managed its medical plans to make them as cost-effective as possible despite dramatically rising costs nationally. The Lab's costs have increased for 2012 and, as a result, employee cost-sharing will also increase. The weekly or monthly premiums employees pay continue to be based on their individual annual base salaries, with employees who earn a higher salary

paying a greater percentage of the cost. For 2012 we have kept the employee increase as small as possible.

- Here are two examples of employee cost-sharing based on the Vytra family coverage (employee + two or more dependents):
- Employees with an annual salary of \$40,000-\$69,999.99 would see their premium increase by \$1 a week if they're on a weekly payroll or \$4.34 a month if they're on a monthly payroll.
- Employees with an annual salary of \$100,000 and more would see their premium increase by \$6.95 a month.

Here are two examples of employee cost-sharing based on the CIGNA family coverage (employee + 2 or more dependents):

- Employees with an annual salary of \$40,000-\$69,999.99 would see their premium increase by \$3.29 a week if they're paid weekly or \$14.25 a month if they're paid monthly.
- Employees with an annual salary of \$100,000 and more would see their premium increase by \$22.80 a month.

What am I required to pay when I retire?

Employees will continue to share in the cost of medical coverage upon their retirement. Employees who were hired on or before December 31, 2010, will pay 20 percent of plan cost as a retiree. Employees who were hired after December 31, 2010, will pay 50 percent of the plan cost as a retiree. These cost-sharing percentages will stay the same for 2012, although they may increase in future years based on national health care cost trends and the Lab's cost analysis.

What do I have to do and when?

Open Enrollment occurs from November 1 through 18. During this time, eligible employees may add or drop medical and/or dental coverage, change from one medical or dental plan to another, add/drop family members covered, and/or sign up for the reimbursement account(s) and the vacation buy plan. If you do not want to make a change to your medical or dental coverage, you do not need to do anything. If you want to participate in the reimbursement account(s) or the vacation buy plan for 2012, you must enroll during Open Enrollment. If you are currently in Aetna HMO or HIP HMO and do not select a new plan, you will be automatically transferred to the Vytra EPO.

Open Enrollment elections can be completed online or by paper form for medical and dental benefits, reimbursement accounts, and the vacation buy program. Online enrollment requires that you have a password for PeopleSoft HR (the same system used for electronic time reporting). For those without a Brookhaven Lab computer, paper forms and computer kiosks will be available in the Human Resources lobby in Bldg. 400.

How can I learn more?

- The 2012 BSA Benefits Program booklet — with additional benefits information — is on the Benefits Office Web page. The booklet will also be delivered by inter-office mail to all employees.
- The BNL Benefits Office will hold a **benefits presentation, noon-1 p.m., Monday, November 7**, in Berkner Hall Auditorium for all interested employees. The session will be webcast live and recorded for later viewing on the BNL intranet.
- To answer questions one-on-one, the BNL Benefits Office will host **CIGNA, Vytra, Delta Dental, PayFlex, TIAA-CREF, and Fidelity representatives, 11 a.m.-2 p.m., on Thursday, November 3, and Thursday, November 10**, in the Bldg. 400 lobby. Literature will be available.
- You can also contact the Benefits Office at Ext. 2877, 5126, or 2881.

Update on Costs for Retiree/LTD Medical Benefits

By Denise DiMeglio, Manager, Benefits

During the past few days, BNL has reached out to its retirees, participants on Long-term Disability (LTD), and their eligible family members to inform them of an important change regarding the cost of medical benefits.

For many of these participants, the Lab has been able to provide coverage without requiring them to pay a monthly premium. We accomplished this by managing the plans to make them as cost-effective as possible despite dramatically rising costs nationally.

Despite our best efforts, we are no longer able to absorb fully the ever-increasing costs of providing medical coverage. Starting January 1, 2012, all participants will share in the cost of medical benefits. While some participants already share the benefits premium cost, for many others this will be a new cost. Based on national trends,

we do expect that this premium share will continue to increase in coming years.

As we began planning our benefits program for 2012, we took into consideration the following information:

- Health care costs nationally increase approximately 10 to 15 percent each year. Over the past three years, BNL's costs of providing medical coverage for participants have increased an average of 9 percent annually. All projections indicate that these cost increases will continue.
- Over 70 percent of our retiree population has made no out-of-pocket contributions toward retiree medical premiums. The remainder pays 20 percent or less of the cost of the medical premiums based on their retirement/LTD date.
- According to the Hay Group, an independent health care advisor, only 48 percent of

employers nationally offer retirement health care coverage. Of those employers offering coverage to retirees age 65 and older, Hay Group found that 90 percent require contributions for single coverage and 94 percent require contributions for family coverage.

- Requiring all BNL participants to share in the cost was not an easy decision for us. In 2012, BNL will pay between 80 and 90 percent of medical premiums for retirees, which is significantly higher than the average at most DOE laboratories and in the marketplace. Plan participants will pay the remaining 10 to 20 percent of the monthly premium cost based on their retirement/LTD date and union/non-union status. More information on how this affects participants, along with other plan changes, is included in

their open enrollment booklet, which was mailed and available online.

What about future retirees?

Employees do share in the cost of medical coverage upon their retirement. Current employees who were hired on or before December 31, 2010, will pay 20 percent of plan cost after they retire. Current employees who were hired after December 31, 2010, will pay 50 percent of the premium as a retiree. These cost-sharing percentages will continue for 2012. They may increase in future years based on national health care cost trends and the Lab's cost analysis.

How can I learn more?

Should you have any questions, please contact the BNL Benefits Office at 631-344-2877, 631-344-5126, 631-344-2881, or 1-800-353-5321.

TIAA-CREF One-on-One Counseling

A TIAA-CREF consultant will visit BNL on November 2, 17, and 28; and December 8, 14, and 21, to answer employees' questions about financial matters. For an appointment, call 1-800-732-8353 or go to www.tiaa-cref.org/bnl and select "set up a meeting."

CALENDAR

— WEEK OF 10/31 —

Saturday, 11/5

***Benefit Conference on Nikola Tesla**
Hilton Garden Inn, 2038 Old Country Rd, Riverhead. All-day exhibits, talks, including talks by BNL scientists, focusing on Nikola Tesla, father of wireless technology; ham radio; more. Register at www.TeslaScienceCenter.org. Proceeds to benefit purchase, restoration of Tesla's last lab, nine miles from BNL. Cost \$40 includes lunch, refreshment breaks (students w/ID, \$30, children 3-14, \$15). From Nov. 1: adults, \$50.

— WEEK OF 11/7 —

Monday, 11/7

***Talk: Long Term Care for Vets**
Noon. Berkner Hall, Room B. Nancy Burner, Esq. will discuss "Long Term Care & Estate Planning for Veterans." All the Lab community is welcome. See p.2.

Tuesday, 11/8

***Joint Photon Sciences Inst. Talk**
2 p.m. Stony Brook University Physics Seminar Room S240. Ian Robinson, London Centre for Nanotechnology, UCL and Research Complex at Harwell will talk on "Materials Analysis at Large Scale Facilities." All are welcome. See notice, p.2.

Wednesday, 11/9

***BSA Noon Recital**
Noon. Berkner Hall. Pianists Orion Weiss and Anna Polonsky will perform duets by Schubert, Schumann, and Ravel. Sponsored by Brookhaven Science Associates, the concert is free and open to the public. All visitors to the Lab of 16 and older must carry a photo ID.

Thursday, 11/10

Ceremony for Veterans Day
Noon. Brookhaven Center (Bldg. 30) parking lot. The Brookhaven Veterans Association in partnership with the Lab Protection Division will hold a ceremony honoring veterans. All are welcome. See p.2.

Ballroom Dance Class: New Series

The BNL Ballroom Dance Club will start a new series of five lessons on Wednesday, Nov. 2, in the North Ballroom at the Brookhaven Center.

- 5:30 p.m. Beginner Rumba
- 6:30 p.m. Intermediate Cha-Cha
- 7:30 p.m. Intermediate Waltz

The cost is \$40 per person for the five-week series. Classes are on November 2, 9, 16, 30, and December 7. Pre-registration is required for the Beginner Rumba class. If fewer than 10 people sign up we will not hold a beginner class. For registration information contact Vinita Ghosh, Ext. 6226, ghoshvj@bnl.gov or go to www.bnl.gov/bera/activities/dance/default.asp.

BREA to Tour RHIC, PHENIX

On Wednesday, November 9 at 9:30 a.m., the Brookhaven Retired Employees Association is sponsoring a tour of the RHIC tunnel and the PHENIX detector. A luncheon will follow. Retirees and their guests can reserve by contacting Ken Mohring (kenwadingriver@gmail.com) or by sending a note to BREA at Bldg. 421. The cost of the luncheon (hero, salad, soda, and dessert) is \$8. The schedule for the day is at the BREA website: <http://www.bnl.gov/bera/activities/brea/default.asp>.

BSA Noon Recital, 11/9: Weiss, Polonsky

Pianists Orion Weiss and Anna Polonsky will perform in a concert on Wednesday, November 9, at noon in Berkner Hall. Sponsored by Brookhaven Science Associates, the concert is free and open to the public. All visitors to the Lab 16 and older must bring a photo I.D.

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/. To apply for a position, go to www.bnl.gov. Select "Job Opportunities," then "Search Job List."

LABORATORY RECRUITMENT - Opportunities for Laboratory employees only.

LAMP CLEANER - As directed, cleans a variety of light fixtures in offices, shops and buildings using detergents and other cleaning agents, replaces lamps and starters. Generally cleans fluorescent and incandescent light fixtures excluding high intensity mercury lighting. Takes standard safety precautions with specific respect to electrical equipment encountered. Reports the occurrence of light fixtures, wires and related electrical equipment needing repair. Works from ladders and scaffolds as necessary. May operate fixed building cranes and drive pickup type truck as required by described duties. Site Resources Division. Please submit Employee Transfer form to Diana Hubert, Human Resources Div., Bldg. 400B referring to Job ID # 15933.

Motor Vehicles & Supplies

09 NISSAN SENTRA - 24K mi. blk/clean paint, 2.0L, 4dr, peppy, excel gas mi, pics. \$12,500 neg. 704-8050, bbenish@bnl.gov.
08 TOYOTA SPORT UTILITY - 32K mi. 4wd, 2.4 L, silver, a/t like new in/outside. \$17,000. Shengliang, Ext. 4357, 548-204-2910.

05 ACURA RSX - 69K mi. 2 dr, a/t, p/w, "techtronic" w/opt for manual; metallic silver, lther. \$11,000 neg. 917-596-5760.

04 LINCOLN TOWN CAR - 44K mi. Exec Signature, keyless ent, gt. cond., car fax, pics avail. \$11,499 neg. brookhaven@optonline.net.

04 FORD MUSTANG, CONV. - 10K mi. Anniv Ed Roush Stage II compet.orange/chrl lthr int, V-8 5spd. \$18,500. 495-4869.

03 HYUNDAI SANTA FE GLS/LX - 100.28K mi. a/t, htd lthr seats, s/roof, new brakes, wtr pmp, tmg belt. \$5,500 neg. 566-2635.

02 SKAMPER KODIAK - Camper: slide out, bthrm, frig/frzr, stove/oven, m/wv, slps 7, couch, dual axle, 6000 lbs. \$9,000. Ext. 7978.

02 BUICK LESABRE - 93.8K mi. cust Sdn, V6, a/t, am/fm/xm/cd, a/c, c/c, p/l, p/w, ABS, fwd, lthr, alarm. \$4,800 neg. 816-0723.

01 HYUNDAI ACCENT - 127K mi. blue hatchback, reliable, gd cond, a/c, radio, 25-26 mpg local. \$1,950 neg. Ext. 2800.

01 KTM 300 EXC - 500 mi. dirtbike, 2-stroke eng w/new top end, runs excel, v/powerful. \$1,400 neg. Louis, Ext. 4417.

01 HONDA ACCORD EX V6 - 111.6K mi. white, lthr, a/t, ABS, trcn contr, alloy whls, 6CD, pwr seats, s/roof. \$6,800 neg. 624-2026.

99 NISSAN ALTIMA GLE - 89K mi. leather, all pwr, excel running cond, grt mpg a. \$4,900 neg. Frank, Ext. 7518, 375-6991.

95 BUICK LESABRE - 91K mi. runswell, grt cond, well maintnd, many new parts, \$3,500 neg. Ext. 3932 or wilke@bnl.gov.

95 MAZDA 626 - 150K mi. 4D, 4-Cyl, 2.0 Liter, a/t, v/gd cond, v/gd starter car. \$1,200 neg. 605-5413, mysunjing@hotmail.com.

88 CHEVY K5 BLAZER - 146K mi. clean blk/ gry K5 blazzer, full sz, new fctry tranny, brakes, 350TBI runs well, \$1,950 neg. 484-9888.

BRITAX CHILD CAR SEAT - Frontier Harness model. Top of line. true side impact protection, Ask \$125. sbronson@bnl.gov.

CHROME RIMS - 20" w/gd tires, gd cond/\$600. 445-4027.

TOOL BOX - Weather Guard Steel for truck bed, black, used, 18 1/2h x 20 1/4w x 62L; pd/\$700, \$300/neg, pics. Ext. 7432.

VW JETTA 2.0L OIL PAN - w/steel Time-Sert thread insert and new factory drain plug. Ready to install. 484-9888.

Boats & Marine Supplies

17' MARITIME SKIFF - & trailer. \$3,400 neg. Scott, 516-644-3710.

10' HARD FLOOR ZODIAC - gd cond, needs sm gluing, seabag, anchr, oars, 6hp johnson seahorse, new fuel tank, \$850/all. Ext. 4691.

MERCURY OUTBOARD - 60hp w/controls, needs lower unit rebuilt, \$1300. Scott, 516-644-3710.

OUTBOARD ENGINE - 85hp, I think it is a Johnson, really nice shape, sell/trade. Jeffrey, Ext. 8162, 816-3554 or jduff@bnl.gov.

SAILBOAT - '75, 26'/Perason, any offer accepted. Ed, 642-7240.



Roger Stoutenburgh 05401011

Gathered in front of the BNL Fire Rescue Group brush truck with the 14-member Spanish fire-fighting team are: Charles Hamilton, Academy Coordinator (bottom, sixth from right); Bill Fonda, Academy Information Officer, (bottom, fourth

from right); Mike Whalen, Bureau of Land Management in Nevada (bottom, seventh from right); Phil Gilmore, Massachusetts Department of Conservation & Recreation (bottom, third from right); Michael Durfee, U.S. Fish and Wildlife Service

(bottom, right); Richard Ohlsen, BNL Laboratory Protection Division, (bottom, second from right); Wayne Burpee, Canadian Air Tanker Operations (top, right); and Kathy Schwager, BNL Environmental Protection Division, (top, left).

Firefighters From Spain Say, '¡Hola!' To Wildfire & Incident Management Academy

This year, the Wildfire and Incident Management Academy celebrates its 14th anniversary. It also celebrates hosting firefighters from Europe for the first time.

"We have had firefighters from our neighbor Canada attend previous academies, but this is the first time we have had attendees from Europe," said Charles Hamilton, Academy coordinator. Hamilton referred to the 14-member tactical fire-fighting team from Spain. "This means the Academy has truly gone global providing us with the exhilarating opportunity to exchange information and techniques," he said.

Wayne Burpee, who works in emergency air tanker operations and hails from New Brunswick, Canada, is a second time attendee of the Academy and said, "I hope to come back!"

Hamilton said he was first contacted by Jose Duce of the Spanish firefighting team after Duce found the Academy information on the web. "We had to work out some of the standards required in order for them to attend the Academy, but once we did, both Jose and I were very excited about the Spanish firefighting team coming to the United States," said Hamilton.

Duce agreed. "This has been

a great experience for all of us," he said. "Besides the important classroom and field training, the hospitality we have received has been wonderful. It's the perfect combination of technology and culture."

When asked if they had visited any place off Lab grounds, Duce explained that he and his fellow firefighters were invited by local Eastport fireman and Academy attendee Bud Mazura to "family night" at the Eastport Fire Department.

"Everyone has been so welcoming and helpful," said Duce. "Family night at the Eastport firehouse was a great

way to spend a Friday night in New York."

Duce added that he took time to research the Laboratory before they left Spain. "We are staying in the Lab's on-site dorms," he said. "We are happy to be offered rooms at this historic facility where military heroes have served. It is good to see that the Lab has a lot of respect for its past history. We thank everyone at the Academy and the Laboratory for the opportunity to learn new firefighting techniques, experience Long Island, and build new friendships with firefighting teams across the United States."

— Jane Koropsak

Sports, Hobbies & Pets

OFFSHORE FISHING RODS - 3 Altenkirch Cust. rods, w/Penn Internat. Reels. 2- 50lb w/50TW; 1 80lb. \$2000. Louis, Ext. 4417.

Furnishings & Appliances

BUNK BEDS - twin size w/mattresses/\$300. 821-3739.

CABINET - All white w/light oak top, 2/ glass drs, 4/shelves, 48.5"H x 28.5"W x 14-3/4"D, v/gd cond/\$25. Lillian, Ext. 8772.

COMPUTER DESK - mahogany, excel cond, ask/ \$100. Cynthia, 578-8743.

DBLE-SIDED FIREPLACE - w/glass drs; Range hood, white; sliding glass patio dr; upright Piano needs work, all b/o. Ext. 3116.

GRILL COOKER - Ready Set Go Countertop, brand new \$30. Ext. 7216.

KITCHEN APPLIANCES - lg white/silver Emerson m/wave, grt cond/\$70, white dbl toaster & can opnr \$25, canisters \$10. 445-4027.

KITCHEN SET - gold w/glass top/4 gold high chairs, metal & cloth, great cond, pics avail upon request, \$100. 445-4027.

KITCHEN TABLE - Lt color oak wood top, white legs. 4 chrs, mtchg seat w/wh.legs & back, 6 spindles. 47"lx29"W. \$25. Ext. 8772.

KITCHEN TABLE SET - oval table w/4 chairs, almond color, excel cond/\$60. 275-0694.

MATTRESS & MOUNTN BIKE - q/size mttrss, b/sprg & metal frame, gd cond/\$50, 10 spd mtn bike, \$40, 2 yrs child cart \$35, 882-0840.

MEDICAL EXAM TABLES - Midmark Ritter 204 high-end, new cond, pics avail, \$1075/ea, 3/\$3150. 240-350-0174, vbri1@aol.com.

OIL BURNER MOTOR - Beckett RWB Residential with parts used for boiler/furnace. \$150/neg. 929-4896. Nicole, Ext. 7356.

PFALTZGRAFF FONDUE SET - winterberry pattern, new in box, \$15. 516-241-4598.

POTTERY BARN TABLE - white, 3 shelves, 2 w/wicker basket sliding on track, 15"Wx15"Lx36"H, mint, \$30. Ext. 8772.

TV CABINETS (2) - 1 medium oak, 54H x 43L x 21D. 1 cherry veneer, 64H x 60Lx19D. Both exce. \$100/ea. 878-2425.

TV ENTERTAINMENT CENTER - & stand, dk wood finish, 56Lx31Hx19D, pics avail/\$200/neg, can deliver. epetersen@bnl.gov.

WAVEBOX MICROWAVE - Ltwtght, portable w/remvbl cooler. Plugs into AC, DC to car batt, car pwr outlet. \$75. Ext. 2733.

WAVEBOX MICROWAVE - Ltwtght, portable w/remvbl cooler. Plugs into AC, DC to car batt, car pwr outlet. \$75. Ext. 2733.

Audio, Video & Computers

CAMERA - Panasonic Lumix DMC-FH20 14.1 MP, 8x Opt Zoom & 2.7" LCD, HD movie, 2GB mem, excel, \$115/neg. 344-4290.

CD/DVD PLAYER-SONY - DVP-SR200P, \$20. 816-0723 or ymiao@bnl.gov.

GATEWAY 555GE - Desktop PC - tower only. Clean Windows XP install. P4 3.0GHZ, 1GB RAM, new 250GB HD. \$75. Ext. 3970.

I POD NANO - 1GB, new in box, never opened/\$50. Jim, 516-805-3177.

ROCK BAND 1 & 2 X BOX 360 - w/games for 1 & 2, instrument set for Rock Band 1 & 2, ask/\$80 "All Sales Final". 278-4568.

TVS - 36" Magnavox/\$50; 26" Esa/\$40; 15" Sharp/25, neg. Lynda, Ext. 7235.

TVS - 2/avail, both RCA, 1/has built-in VCR player, \$30/ea. Donna, Ext. 2716, 878-2425 or storan@bnl.gov.

Free

COOLPIX S550 BATTERIES - 2/w/charger. Jonathan, Ext. 4921 or jfranco@bnl.gov.

HP TONER - HP Color Laserjet CE265A, brand new. Menzel, Ext. 4495, mjones@bnl.gov.

Community Involvement

FUNDRAISER FOR IPOP - My daughter has been selected to represent L.I. at IPOP in LA in January. Fundraiser dinner at Polish American Club, Port Jeff Sta, 11/4, 6-10p. For ticket info., Mark, 928-5684 or sardzinski@bnl.gov.

STRENGTH FOR THE TRINCA'S - Nov. 12, 7-11p, Moose Lodge Riverhead 51 Madison St. \$25 at door, Please join us to raise money for Jay Trinca & his children. Jennifer, Ext. 3438.

Happenings

HOLIDAY RECESSION PARTY - Join us, Dec. 9 @ The Flaming Hearth, 756 Horseblock Rd, Farmingville, 6 p.m. until..? www.theflaminghearth.com/Adv.tickets

\$10/\$15@door: DJ, Appetizers, Cash bar, 50/50 raffle, Door prizes. Charles Gardner, 219-2884 or Kevin Hester, 796-9168.

SHEN YUN PERFORMING ARTS - Reviving 5,000 Years of Civilization Jan 11-15, Lincoln Cntr, World's premier classical Chinese dance & music, shenyunperformingarts.org. George, Ext. 4033.

SHEN YUN PERFORMING ARTS - Reviving 5,000 Years of Civilization Jan 11-15, Lincoln Cntr, World's premier classical Chinese dance & music, shenyunperformingarts.org. George, Ext. 4033.

Miscellaneous

BABY'S ITEMS/KID TOYS - strollers, toddler car booster, Bitterscotch Fureal pony, girls, Vtech, more. mmccabe@bnl.gov.

COACH POCKETBOOKS - med sz brown & burgundy w/wallet \$100; lg gold & pink bag/\$50; sm tan & blue w/scarf/\$50. 445-4027.

DANCE DANCE REVOLUTION - Two pads & one DVD for XBox, \$50. Games for Wii & GameCube, \$10 ea. 878-2425.

EVENFLO EXERSAUCE MEGA FARM - barely used, all orig access. incl, \$25. Ext. 2352.

FISH TANK - 55 gal w/oak cabinet stand/\$125, pics avail. Ext. 7432.

GYM EQUIPMT - 1 Nordictrack, 1 Nordic Gold, 1 Tunturi Bike, like new, b/o. 275-0866.

HOT/COLD - Thermoelectric cooler, 40qt., \$40. Exersaucer car, \$10. Roocase, exec e-Book case, red leather, \$20. 878-2425.

HOUSEHOLD - Pfaltzgraff dinner/flatware sets, ping pong table, 9' x-mas tree, huge x-mas wreath, cd player, spkrs, candle holders. mmccabe@bnl.gov.

STROLLER, HIGH CHAIR - Medela in Style Adv, breast pump w/shoulder bag/ \$100; Graco travel stlr/\$50, hi ch/\$15/neg. Ext. 8140.

Yard & Garage Sales

CORAM, 27 AMBER LANE - Huge Sale 10/29 & 10/3, 9a-4p. Household, furniture, baby items, electronics, toys, books,TV's, etc. Luke, Ext. 2238.

MOVING SALE - Oct. 28, 9:30-4:30, 11 Park Circle, Shirley, everything must go. Michael, 655-4674.

Tools, House & Garden

SNOWBLOWER - Toro 1800 elect snowblower, excellent condition, \$100. 678-3299 or dgbdoug@gmail.com.

Wanted

APARTMENT - nr BNL, \$500/mo, avail in Nov. Luozhou, 347-277-4904 or oe05071-lz@gmail.com.

BMX BIKE - for a 12 yr old boy, free or low cost. Trish, Ext. 6044.

BOXTOPS & CAMPBELL'S UPCS - Fundraising for playground, school supplies in Centereach, Bldg 911A. Nina, Ext. 5894.

ELECTRIC FIREPLACE - prefer black and in great shape. 445-4027.

NINTENDO GAMECUBE CONTROLLER - Seeking 1 controller for GameCube, free or reasonable price. Heather, Ext. 4138.

For Rent

WEEKI WACHEE, FL - priv ranch on Gulf, 70m Orlando, 45m Tampa, fly Islip direct, near beach/tennis/park, 3/bdrm, 2/bath, d/r, f/p, 2gar, 1gp see review.oktane.net/House-Tour.\$450/wk, also will sell for \$125,000 neg. 344-5537.

CTR MORICHES - 3brm hse, 2/bath, cac, w/d, unfurn, beach/boating rights, util not incl, no smkg/pets. \$1,950/mo. Ext. 3116.

LAKE RONKONKOMA - 1 bed/bath, all incl, no pets of any kind, no smkg. \$950/mo. dmcarthur@bnl.gov.

MASSAPEQUA - Waterfront home on Bay across from Jones Beach, 3bdrm w/sandy beach, backyd, hardwd flrs, new paint, \$2,800/mo. 874-9639, rbuono@bnl.gov.

MILLER PLACE - 1bdrm (250sq+), new carpet, own full ba, S/N wndws, ACA, int/prv ent/ drwy, share kit, quiet, no smkg/pet, BNL single employee only, \$800/mo. An, 510-221-7643.

PATCHOGUE - Detached Apt. Loft style Bdrm, LR, EIK, plenty of closet space. Washer, Dryer, Utis incl. Off str. parkg. Non-Smoker, No pets please. \$900/mo. Beth, 682-5433.

RIDGE - 1 bdrm, full bath, l/r, kitchenette, sep ent/prkg, mins to lab, no smkg/pets in apt, incl all. \$975/mo. Lynne, 924-0002.

ROCKY POINT - 1 bdrm Co-Op Apt/800sq+, own bckyd, lg ba, lg kit, l/v, new cac/heat, no smkg/pets, incl water/gas/heat/cac, 9 mi to Lab. \$1,000/mo neg. 593-4403.

ROCKY POINT - 2nd fl legal 1 bdrm apt, new full bth, eik, l/r, priv ent, no smkg, access to priv beach, incl w/h/CTV/wireless int, 1st mo & 1 mo sec @ signing, \$975/mo. 494-5474.

YAPHANK - fully furn spacious studio apt for one, hi spd int/all utis incl, quiet area, 5 min to BNL, no smkg/pets. \$850/mo. Irene, 516-205-6712.

For Sale

CALVERTON - charming cape w/2bdrm, 2ba, kit, d/r, lg l/r w/vaulted ceilings, quiet neighborhd just mins away from all. \$289,900 neg. Debbie, 831-0152.

ROCKY PT - Grand Custom Col. in The Tides, over 3,100 sq ft, 4 bdrm, cust. kit w/ganite, some work, gunite pool, pond w/waterfall, beach rights, big gar. \$439,000. Ext. 5894.

WADING RIVER - 2 bdrm ranch, walk to beach/park/deli, 15 mins to BNL, immaculate, ready to move in, all new paint/ carpets. \$215,000. 473-6550.

On-Site Services

CAFETERIA, BERKNER HALL - try the daily "American Grill," grilled salmon burger with tartar sauce, lemon wedge, lettuce & tomato, or grilled chicken burger with lettuce & tomato, French Fries & 16 oz fountain drink, \$5.95 + tax (w/spicy waffle fries or crisp onion rings add \$.55).

ON-SITE SERVICE STATION - In addition to selling gas, we provide oil and battery changes, checkups, vehicle maintenance and repairs, NYS inspections, Ext. 4034.

Just after the ads on the internal BNL web at <http://intranet.bnl.gov/ads/displayAdsAll.asp> is a wide-ranging list of services provided by BNLers. For a copy, contact lseubert@bnl.gov, Ext. 2346.