

Safety Update From Sam Aronson

By Laboratory Director
Sam Aronson

At the BSA Board meeting last week, the board agreed to form a small team of experienced operations professionals from across the Battelle family of labs to come to BNL the week of August 6 to work with us to help us identify gaps in our safety performance and correct them. I welcome BSA's efforts to partner with us on this problem of vital significance for BNL's future, and would encourage

those of you who may be contacted by this team to share your experiences and thoughts openly and honestly.

Our poor safety performance is a threat to the Lab as well as to those of us who work here. If we don't collectively address the underlying causes of this performance, more of our colleagues will get hurt, and others will be given the task of addressing and fixing it for us.

I am asking for your help, individually and collectively,

to dramatically improve our performance and to prevent the occurrence of operational mishaps that threaten the health and the lives of our coworkers and ourselves. This requires the active engagement of all of us — workers, front-line supervisors, and middle and upper management.

Mike Bebon, Deputy Laboratory Director for Operations, and I have spoken with the Policy Council, the...

See *Aronson's Msg.* on p. 2

14 BNL Employees Receive Lab's Highest Accolades

Members of the Brookhaven Lab community gathered in Berkner Hall on June 27 to recognize 14 employees' distinguished contributions to the Laboratory's mission. The Science and Technology Awards, Engineering Awards, and Brookhaven Awards that were

presented consist of a plaque and \$10,000, and they are the highest accolades given by Brookhaven to its employees.

Photographs and citations for the individual recipients will be featured next week, or see www.bnl.gov/today/story.asp?ITEM_NO=3158.

Science and Technology Awards



Joseph Rubino D5390612

Science and Technology Awards are given to recognize distinguished contributions to the science and technology objectives of the Laboratory over one or more years. The 2012 Science and Technology Awards were presented by Deputy Laboratory Director for Science and Technology Doon Gibbs (left) to John Hill (center), Condensed Matter Physics and Materials Science Department; and James Muckerman (right), Chemistry Department. Awardee William Morse, Physics Department, was not present.

Engineering Awards



J.R. D5390612

Engineering Awards are given to recognize distinguished contributions to the Laboratory's engineering and computing objectives. The 2012 awards were presented by Assistant Laboratory Director for Facilities and Operations Lanny Bates (back, left) to (back, from left) Andrew Marone, Superconducting Magnet Division; Lewis Doom, Photon Sciences Directorate; Yonggang Cui, Nonproliferation and National Security Department; (front, from left) Kevin Smith, Collider-Accelerator Department; Joseph Mead, Instrumentation Division; and Thomas Hayes, Collider-Accelerator Department.

Brookhaven Awards



J.R. D5370612

Brookhaven Awards are given to recognize key contributors in support functions whose performance and achievements represent outstanding service to the Laboratory. The 2012 Brookhaven Awards were presented by Laboratory Director Sam Aronson (standing, left) to (standing, from left) William Dorsch, Environmental Protection Division; David Pate, Collider-Accelerator Department; (seated, from left) Sheryl Golden, Environmental Restoration Projects; and Nelson Cause, Business Operations Office. Awardee Carter Biggs, Physics Department, was not present.

The Frontiers of RHIC Physics

Looking Back to Looking Ahead at the 2012 RHIC/AGS Users' Meeting

With a record-breaking run winding down, upgrade plans that could propel research for at least 10 years of groundbreaking discoveries, and uncertain budgets looming ahead, there was much to talk about at the 2012 annual Relativistic Heavy Ion Collider (RHIC) and Alternating Gradient Synchrotron (AGS) Users' Meeting held at Brookhaven Lab June 12 to 15. During the meeting, 200 people — some of the brightest scientists in the world exploring the frontiers of physics — discussed heavy ion and spin physics, machine and detector upgrades, plans for existing experiments, and machine and detector options for a possible future electron-ion collider — eRHIC.

Recapping RHIC Run 12

"We're gathering near the end of what has really been a magnificent run, during which we met or exceeded all of the science goals that we set out at the start," said Associate Laboratory Director for Nuclear and Particle Physics Steve Vigdor, as he welcomed attendees to the opening plenary session.

Vigdor's welcome was followed by reports from Run 12 Coordinator Vincent Schoefer, Renee Fatemi of the STAR collaboration, John Koster of the PHENIX collaboration, and Leslie Bland of the AnDY col-



J.R. D270612

Timothy Hallman



J.R. D570612

Kyungseon Joo



J.R. D560612

James Sowinski



J.R. D5370612

Steve Vigdor



Many of the attendees at the 2012 annual RHIC/AGS Users' Meeting

laboration — a program proposed at RHIC to measure the spin sensitivity of a process producing pairs of electrons and their anti-particles, which are called positrons.

Run 12 began in mid-January this year as physicists started cooling RHIC's superconducting magnets to temperatures near absolute zero (-273 degrees Celsius) for first collisions on January 21. Collisions during the run, which was scheduled to conclude on June 27, included polarized protons at beam energies of 100 and 255 GeV, followed by uranium beams at 96 GeV per nucleon, copper and gold beams at 100 GeV per nucleon, and a short

test run with gold beams at 2.5 GeV per nucleon. The uranium-uranium collisions and asymmetric copper-gold collisions represented worldwide firsts.

This run included the first time that colliding ions were served up by the Electron Beam Ion Source (EBIS), a new, more versatile pre-injector that produces ion beams of species previously unattainable, like uranium. Scientists also demonstrated the power of stochastic cooling to increase luminosity at RHIC by "cooling" particles within heavy ion beam bunches, to counteract their natural tendency to spread out, or warm up, in momentum...

See *RHIC/AGS Mtg.* on p. 2

BSA Distinguished Lecture, 7/25

Sally Dawson, Howard Gordon to Talk on Possible Higgs Particle Discovery

Sally Dawson and Howard Gordon, both of the Physics Department, will give a talk titled, "A Discovery! The Higgs? Why Is This Important? How It Was Done," on Wednesday, July 25, at 4 p.m. in Berkner Hall. Sponsored by Brookhaven Science Associates, the company that manages the Lab, the talk is free and open to the public. Visitors to the Lab age 16 or older must carry photo I.D.

Data collected during 2011 and 2012 at the Large Hadron Collider (LHC) at CERN in Switzerland, the world's highest energy proton collider, has culminated in the discovery of a new particle that is about 135 times heavier than a proton. But is it really the Higgs particle predicted by the theory that explains the origin of the mass of most elementary particles in the universe? The discovery and its possible identity will be discussed by these two BNL physicists with deep roots in the hunt for the Higgs.

Dawson, a theoretical physicist, will review what



R.S. D060511



R.S. D2661208

the Higgs boson is in the context of the model that ties together all known particle interactions except gravity, and discuss why physicists are excited about its discovery. Dawson's research focuses on the Higgs boson and precision calculations of its properties.

Gordon, an experimental elementary particle physicist who has conducted experiments at Brookhaven, Fermi National Accelerator Laboratory (Fermilab), Stanford Linear Accelerator Center, and CERN, will discuss how data from the LHC's massive ATLAS detector were collected and analyzed, resulting in the discovery of the new particle. Gordon's expertise is in hadron collider physics and detector development.

Dawson, the author of *The Higgs Hunter's Guide*, served as BNL Physics Department Chair 2005-2007. She is a fellow of the American Association for the Advancement of Science (AAAS) and the American Physical Society (APS),See *Possible Higgs* on p. 2

ALL-EMPLOYEE
MEETING
RESCHEDULED
FOR THURSDAY,
AUGUST 2
@ 10 A.M. IN
BERKNER HALL

Arrivals & Departures

— Arrivals —

None

— Departures —

Ciro Sirio C-AD

Peter Warnicke Photon Scis

Yi Yan Biology

RHIC/AGS Mtg. from p. 1
...over time. These critical upgrades and others, which were several years in the making, were completed about five years faster and at one-seventh the cost envisioned in the 2007 Long Range Plan for U.S. Nuclear Science, because of advanced research and development on new accelerator technologies at RHIC.

With the actual cost for power to operate RHIC lower than expected, funds were freed up to extend the run by three weeks, providing the resources needed for the copper-gold and uranium-uranium collisions — all with a record-setting 85 percent uptime for operations at RHIC.

eRHIC: New Scientific and Technology Frontiers

Physicist Vadim Ptitsyn of the Collider-Accelerator Department detailed the progress of current research and development for the proposed eRHIC upgrade, which would allow Brookhaven to collide high-current electron beams with protons or heavy ions to probe the mysterious behavior of gluons. The construction of an electron-ion collider (EIC) remains one of the most promising proposals for the future of nuclear physics.

“The physics underlying the mechanics and potential of this new collider are well understood, and we haven’t hit any show-stoppers,” Ptitsyn said. “The next three or four years will be critical for completing essential research so that we can mount a full eRHIC design.”

Physicist Elke-Caroline Aschenauer, a leader of BNL’s Electron-Ion Collider task force, discussed the groundbreaking physics exploration possible at an electron-ion collider. She made cases for breakthrough understanding in multiple research areas: spin physics, including determining the contributions of quarks and gluons to total proton spin; imaging the spatial distribution of quarks and gluons within a proton, and determining how they move transverse to the proton direction, to extract clues to their orbital angular momentum; and probing Color Glass Condensate, the high-density gluon “walls” that emerge as the dominant feature in ions traveling at relativistic speeds.

Budget Uncertainty Ahead
James Sowinski, the Acting Program Manager for Heavy-Ion

Aronson’s Msg. from p. 1
...Management Council, and with all Lab supervisors about our concerns, and we’ll have further discussion at the All-Employee Meeting in early August. I’ve gotten feedback by direct contact from a number of you already on ways we can improve our performance, including:

- Directorate-level workshops with broad engagement at all levels of the workforce to focus on the work of that directorate and ways to identify and mitigate risks associated with that work
- Lab-wide effort in Hazard Identification, leading

to better Job Risk Assessments (JRAs), with the involvement of workers and front-line supervisors in the design and implementation of new JRAs

- Incorporation of peer-to-peer emphasis in work observations, in work-planning and within groups doing work

I expect other themes to emerge as this discussion broadens to the whole Lab community. It is important for all of us to engage and take ownership for actions we collectively develop to get our operational performance where it needs to be.

A photograph showing Steve Vigdor, a man in a grey suit, presenting a framed certificate to Len K. Eun, a man in a dark shirt. They are standing in front of a presentation board.

Steve Vigdor, ALD for Nuclear and Particle Physics, presents Len K. Eun of Lawrence Berkeley National Laboratory with a thesis award

Research in the Office of Nuclear Physics, then gave an overview of the current and upcoming projects for the Office of Nuclear Physics, a part of DOE’s Office of Science. Sowinski’s presentation was preceded by a talk from his supervisor — Timothy Hallman, the Associate Director of Science for Nuclear Physics — who spoke at the meeting one day earlier on the future of nuclear physics (see Timothy Hallman’s Perspective: A Distinguished Talk below). Sowinski explained that the Office of Nuclear Physics recognizes the budget challenges ahead, but also said that the climate in Washington can change as weather does.

“The best advice we can give you is to continue doing the best physics you can and make sure the public hears about it — not just at DOE. People in the country need to get excited about science,” Sowinski advised. “Develop the best ideas — and I see that you are. They’re the best ammunition, and our ammunition as well.”

Kyungseon Joo, program director for the National Science Foundation (NSF), then gave an overview of the NSF’s support for nuclear physics. Joo noted that for FY2012, the NSF’s appropriation for research and research-related activities are up 2.8 percent while overall funding for nuclear physics programs is nearly \$20.9 million, down 3.5 percent from FY2011. The NSF also continues to manage funding impacts that arise from the one-time “bump” provided by the American Recovery and Reinvestment Act in FY2009.

Timothy Hallman’s Perspective: A Distinguished Talk

There was standing room only in the Hamilton Seminar Room on the eve of the opening plenary as Timothy Hallman, Associate Director of Science for Nuclear

A photograph showing John Koster, a man in a grey suit, receiving a framed certificate from Steve Vigdor, a man in a grey suit. They are standing in front of a presentation board.

John Koster of BNL’s Physics Department receives a thesis award from Steve Vigdor

Physics in the Department of Energy’s Office of Science gave a distinguished lecture titled “Perspectives on the Future of Nuclear Physics in the United States.”

Hallman discussed the portfolio of experiments for U.S. Nuclear Physics, as well as the Long Range Plan for Nuclear Physics of 2007, *The Frontiers of Nuclear Science*, which outlined what a committee made up of the top members in the nuclear physics community felt should be addressed next in the succeeding five to 10 years.

As Hallman gave his personal perspective during the talk, he said, “Given the outlook for the country, budgets will be constrained and so it will be even more important to select experiments of the highest impact. It won’t be, perhaps, good enough just to be a good experiment that’s going to get a solid result.

“You may need a great experiment that’s really going to re-write the textbooks,” Hallman emphasized.

Re-examining Long Term Plans for Nuclear Physics in The U.S.

As Hallman explained, and a number of speakers referenced during the meeting, future federal budgets are uncertain and competition for federal dollars is fierce, so DOE and the National Science Foundation have charged the DOE/NSF Nuclear Science Advisory Committee (NSAC) to re-examine the 2007 Long Range Plan for Nuclear Physics. Robert Tribble of Texas A&M University will chair a new NSAC subcommittee charged with providing advice to implement priorities and recommendations in the 2007 plan in light of projected budget constraints.

Some of the major projects included in the plan that the committee will consider are a 12GeV upgrade to the Continuous Electron Beam Accelerator Facility (CEBAF) at Jefferson National Laboratory; the Facility for Rare Isotope Beams, a new national user facility planned to be built at Michigan State University; and an electron ion collider — possibly eRHIC, which could be built at Brookhaven.

Possible Higgs from p. 1
...and has served on many professional scientific committees, including the APS Committees on the Status of Women in Physics, the Division of Particles and Fields, and the National High Energy Physics Advisory Panel (HEPAP). In addition, Dawson has been a leader at many international physics conferences. In 1995, she was recognized by the Town of Brookhaven as “Woman of the Year in Science.” She has numerous scientific publications and has taught graduate level physics at Stony Brook University. Dawson received her Ph.D. from Harvard University in 1981 and came to Brookhaven in 1986, following post-doctoral fellowships at Fermilab and Lawrence Berkeley National Laboratory.

During the meeting, Vigdor also named two Ph.D. students — Len K. Eun and John Koster — to recognize their outstanding research conducted at Brookhaven’s accelerator facilities. Each honoree received a certificate and a check for \$3,000, and presented their findings at the users’ meeting.

Eun, now of Lawrence Berkeley National Laboratory (LBNL) and formerly of Penn State University, was recognized for complementary work also on spin asymmetries, including improved analysis techniques on forward mesons. Both thesis honorees performed their research at RHIC. Koster, now of BNL’s Physics Department and formerly of the University of Illinois at Urbana-Champaign, was recognized for his work on spin asymmetries in polarized proton-proton collisions, and for new electromagnetic calorimeters designed for collider detectors.

Steve Vigdor’s Perspective on the Future at RHIC

On the last day of the Users’ Meeting, during a talk that will likely be his last Users’ Meeting presentation as ALD for Nuclear and Particle Physics at Brookhaven Lab before his retirement, Steve Vigdor provided his perspective on the outlook for RHIC Physics. He began by addressing 10 big questions that physicists wanted to answer with data from RHIC before collisions began in 2000. With six answers to those 10 questions being “maybe” — not because the answers are completely unknown, but because results from measurements made are still open to interpretation — Vigdor said that scientists collaborating in experiments at RHIC and the Large Hadron Collider at CERN in Switzerland now need to design measurements to address more quantitative questions that follow up on the definitive answers achieved to date and help to resolve the remaining “maybes.”

“At RHIC, there is a clear decade-long measurement program, exploiting RHIC’s versatility and new capabilities, to address critical questions that have been raised, or not yet resolved,” Vigdor said. “RHIC and the LHC are complementary facilities that are both needed to resolve many of the outstanding open questions.

“RHIC provides quite possibly the only viable, cost-effective path to a next-generation Electron Ion Collider,” Vigdor added.

Gordon currently serves as the Deputy Chair of the Lab’s Physics Department and is also the U.S. ATLAS Deputy Operations Program Manager. With over 500 scientific publications to his credit, he is a fellow of the AAAS and APS and served as the Chair of the Division of Particles and Fields. He has served on many DOE and National Science Foundation review committees, including HEPAP. Gordon credits the success of this recent discovery to the strong collaboration among approximately 3000 scientists, engineers, technical experts, and students from around the world working on the ATLAS experiment, with more than 700 from the United States. Gordon received his Ph.D. from the University of Illinois and came to BNL in 1970. — Jane Koropsak

Thesis Awards

User Executive Committee Election Results
Members of the user community also elected new representatives for the RHIC/AGS Users Executive Committee (UEC) during the meeting. This group provides an organized avenue for discussion among BNL administration and those who use BNL’s nuclear, high-energy, and heavy-ion, radiobiological, and testing facilities. Joining UEC Chair Mei Bai of BNL’s Collider Accelerator Department, Paul Sorensen of BNL’s Physics Department and the STAR Collaboration was voted chair-elect, along with new members Pibero Djawotho, Texas A&M University; Kolja Kauder, University of Illinois at Chicago; Maya Shimomura, Iowa State University; and Jim Thomas, LBNL.

Peter Steinberg, also of BNL’s Physics Department, is now the past chair of the UEC, and outgoing members include Christine Aidala, Los Alamos National Laboratory; Helen Caines, Yale University; Jiangyong Jia, BNL and SBU; David Kleinjan, University of California at Riverside; Baldo Sahlmueller, SBU; Anselm Vossen, Indiana University at Bloomington; Wei Xie, Purdue University.

— Joe Gettler with Justin Eure
See also www.bnl.gov/rhic/, and www.bnl.gov/rhic/news2/news.asp?a=3145&t=today.

See Something Unsafe? Say Something...Call Ext. 8800

BERA Bonanza During This Summer Sunday, 7/22

A new group of BNL participants will be on hand this year at the Lab's July 22 Summer Sunday. That day, members from BERA (Brookhaven Employee Recreation Association) and their families will share their personal avocations, showcase their talents, and demonstrate the Lab's wealth of cultural diversity with visitors.

For starters, the members and friends of the Cycletrons, a club for the Lab's motorcycle enthusiasts, will promote motorcycle safety, showcase their bikes and share their passion for open-air riding. Visitors can expect to see a variety of motorcycles such as BMW, Ducati, Honda, Suzuki, Yamaha, and Harley Davidson.

Safety Is Rule Number One

"The Cycletrons are a very active club," said long-time member and past president Frank Dusek who works in the Collider-Accelerator Department. "We organize many group rides and events. Our long-time motto is 'a good ride is a safe ride.' We don't just promote motorcycle safety, we practice it." Dusek added that he and his fellow riders appreciate the opportunity to promote safety awareness. "It is so important that we all look out for each other. Safety is rule number one."

Living the Dream

Cycletron President Andy Mingino, who works in the Photon Sciences Directorate, said he is happy to promote motorcycle safety and share stories about journeys with Lab's visitors. "Being involved in Summer Sundays is particularly special for me," said Mingino. "As a young boy I came to the Lab for a visitor's day with my friend



Joseph Rubino 07340612

The Cycletrons will be one of several BERA Clubs sharing their favorite pastimes with visitors during the Lab's Summer Sundays program on July 22, 2012. In this photo, taken June 18, the Cycletrons gathered for lunch at the gazebo to celebrate "International Ride to Work Day." The annual event is meant to highlight the positive social and economic values of motorcycling. Afterwards, several club members (and passengers) hopped on their bikes and traveled to Greenport to enjoy the sunshine and the wind on their faces.

All are invited to attend the Summer Sundays experience. For the schedule of events and details go to www.bnl.gov/community/summer_sunday.asp.

and his dad, Howie Farrell, who worked in the Reactor Division. I was so captivated by the Lab facilities that I knew even then this was the place I wanted to work someday. Now I am living the dream of that young boy. I have a great job and an incredible crew of motorcycle-riding comrades."

Life Is a Highway

In addition to short rides to local venues like Claudio's Restaurant in Greenport or All-American Burger in Nassau County, Cycletron members have enjoyed the open roads on their two-wheeled vehicles and traveled to interesting places such as Nova Scotia and New Orleans, Louisiana, as well as motorcycle rallies in Laconia, New Hampshire and Johnstown, Pennsylvania. Some very adventurous members, like Craig Diaz, Rich Sautkulis, and

Jim Yerry, have traveled cross-country with minimal supplies packed in their saddlebags.

Christine Carter, Recreation Supervisor, said she is amazed at how active and creative all the BERA clubs are. "I am happy to say that we have a club for almost every sport or cultural interest," said Carter. "If you work here and have a favorite pastime, from ultimate frisbee to jewelry design — we have a club for you!"

Interested in traveling down the road with the Cycletrons? Contact Andy Mingino, Ext. 5786, mingino@bnl.gov or Rich Sautkulis, Ext. 3386, rich1@bnl.gov.

For more information on BERA Clubs and activities go to: www.bnl.gov/bera/default.asp or contact Christine Carter, Ext. 5090, ccarter@bnl.gov.

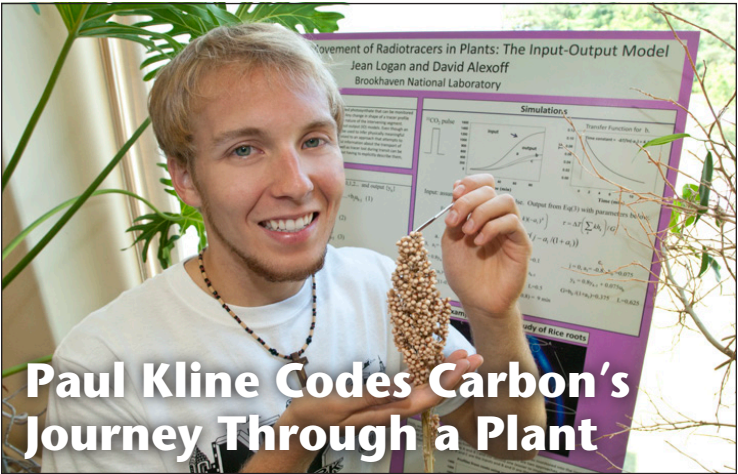
— Jane Koropsak

BERA Brings It On

The Cycletrons won't be the only BERA Club to make an appearance at the July 22 Summer Sunday. Among other participating clubs: the Asian Pacific American Association will delight visitors with the performance of a Chinese folk dance and demonstration of Chinese calligraphy, the Antique and Classic Motoring Club will display a range of classic cars, and the Camera Club will exhibit their captured images.

Music, Music, Music

Visitors will be treated to musical performances by BNLeers and their family members, including the band Calico Galaxy, with a progressive rock "Zappa like" performance, followed by a selection of alternative rock music by Chris Lake and Friends. The Chemistry Department's Michael White and his jazz band, "Down a Fourth," will fill the air with music, and the Laboratory Protection Division's George Bostick's Guitar Blues Band will close the show by "singing the blues."



Joseph Rubino 0942612

Paul Kline Codes Carbon's Journey Through a Plant

Paul Kline spent all of his Christmas break working on his DOE internship application. Just two months later, he found out that he had been accepted to BNL.

Kline, who studies computer science at Blackburn College, was tasked with writing software in C++ for chemist Jean Logan in the Medical Department. There was only one problem: he didn't know C++.

"I went right to the research library and got about five or six books," he said. "Jean actually wanted me to teach her!"

Their project is part of the DOE's growing focus on plant life. A better understanding of plant physiology can help scientists grow crops for biofuels more

efficiently and sustainably in the future.

Currently, Logan is studying how long it takes for photosynthate, a chemical product of photosynthesis, to travel from a plant's leaves to its roots. She labels the photosynthate with a radioactive tracer by exposing the plant to carbon dioxide gas made with the radioisotope carbon-11. Using microscopic positron emission tomography (microPET), scientists monitor the movement of the tracer during several hours.

The team analyzes the tracer's progress through the plant using an input-output model, a technique that represents the relationships between the components of a relatively un-

known system. That's where Kline comes in. Logan needs him to write code that can remove conflicting noise from the data and display it in the input-output model.

"In scientific measurements, you always have noise," Logan explained. "Part of this model involves methods for estimating the parameters and the presence of the noise. If you just use the initial linear solution, it will be biased in both the input and the output."

Kline's code will also be used to develop a formula that explains the tracer's movement.

Logan noted that Kline isn't intimidated by the challenge. "He's very smart. I really like computer science students, because they can come in and just get things done," she said.

Kline says he enjoys living and working at Brookhaven. He tells his friends at home about the interns' free housing, and gets his cross-country fix through the lab's Running and Cycling Club.

"Nobel Prizes are given here, research is done here, and I'm right here in the middle of all this," Kline said. "It feels cool to be able to say, 'I've been there.'"

— Aviva Hope Rutkin

TIAA-CREF One-on-One Retirement Counseling

A TIAA-CREF consultant will visit BNL on July 24 and July 26 to answer employees' questions about their financial matters.

For an appointment with the consultant, call 1-800-732-8353 or go online at www.tiaa-cref.org/bnl and select "contact" on

the bottom of the page, then "contact us online," then select "schedule a personalized advice consultation."

CALENDAR

Sunday, 7/22

***Summer Sundays: Dazzling Light**
10 a.m.-3 p.m. Berkner Hall & National Synchrotron Light Source II (NSLS-II). Free, open to the public. Visitors to the Lab of 16 and older must carry a photo I.D. See p.4 & at left.

— WEEK OF 7/23 —

Monday, 7/23

AAAG Bake Sale

11:30 a.m. Bldg. 400 lobby. The BERA African American Affinity Group will hold a bake sale and membership drive.

Tuesday, 7/24

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, 7/25

BSA Noon Recital: Pianofest

Noon. Berkner Hall. All are welcome to this free public piano concert, sponsored by BSA. Visitors to the Lab of 16 and older must carry a photo ID.

*BSA Distinguished Lecture: Higgs?

4 p.m. Berkner Hall. Sally Dawson and Howard Gordon, BNL Physics Department will talk on "A Discovery! The Higgs? Why is this Important? How it was done." Free, open to the public. Visitors to the Lab of 16 and older must carry a photo I.D. See p.1.

Family Movie Night — Free

8:15 p.m. Recreation Hall, Bldg. 317. Enjoy free movies, free popcorn, under the stars outside the Rec Hall. Organized by BERA. All Lab community welcome.

Thurs. & Fri., 7/26 & 27

*Movie: Mao's Last Dancer

Noon-1 p.m. Berkner Hall. See notice below.

Sunday, 7/29

*Summer Sundays: Nano Science

10 a.m.-3 p.m. Berkner Hall Center for Functional Nanomaterials. Free program, open to the public. Visitors to the Lab of 16 and older must carry a photo I.D.

— WEEK OF 7/30 —

Tuesday, 7/31

Sam's Club Membership Drive

11 a.m.-1:30 p.m. Berkner Hall lobby. Sam's Club will sign up new members and renewals. Giveaways: \$10 cash card, advantage membership \$40, more.

Thursday, 8/2

All-Employee Meeting

10 a.m. Berkner Hall. Lab Director Sam Aronson will talk on the 10-Year Strategic Plan, safety performance, and sustained operational excellence.

Select an Undergraduate Intern by 7/31

Applications for the Fall 2012 Science Undergraduate Laboratory Internship (SULI) program are now available. This is a 16-week program that runs from September 5 through December 21. Please contact Mel Morris in the Office of Educational Programs at mmorris@bnl.gov or Cindi Biancarosa at biancarosa@bnl.gov for the link to access the applicant pool.

The SULI students must be placed by July 31.

Asian Pacific American Association Celebrates 10th Anniversary

Movie Viewings Planned for Scholarship Fund

This year marks the 10th anniversary of the BERA Asian Pacific American Association (APAA) and the eighth year of offering the Dr. Lin Scholarship to assist Asian students matriculating toward a doctorate degree in the U.S., and funds are now limited. The APAA will feature three films and collect for the scholarship fund. Each film will be shown at Berkner Hall in two parts over consecutive lunch hours.

July 19 and 20: Water was a 2006 nominee for the Best Foreign Language Film. Set during Gandhi's rise to power, *Water* tells the story of an Indian girl married and widowed at eight years old, who is sent away to a home for Hindu widows

July 26 and 27: Mao's Last Dancer was the 2009 runner up for the Toronto Internat'l Film Festival: People's Choice Award. A drama based on the autobiography by Li Cunxin. At the age of 11, Li was plucked from a poor Chinese village by Madame Mao's cultural delegates and taken to Beijing to study ballet. In 1979, during a cultural exchange to Texas, he fell in love with an American woman. He defected and later took important roles in the Houston and the Australian Ballet. (117 minutes)

August 2 and 3: The Way Home (Jibeuro) was the 2002 Winner of the Korean Academy Award for Best Picture.



Alex Reben v001072

Making Sidewalks More Safe at BNL

Some sidewalks at the Lab are decades old, with cracks caused by weather and roots, posing potential tripping hazards to the site's many walkers. The Mason Group of the Lab's Site Resources Division crew is systemically identifying the sidewalks that need repair and replacement, and getting the job done. Watch the video on-line to learn more: <http://bit.ly/Q5JT1R>.

Safety makes science possible at Brookhaven National Laboratory

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.

SR. ADMINISTRATIVE SECRETARY (A-3) Responsibilities include the support of the Systems Engineering Group/Nuclear Science and Technology Department by providing highly complex administrative and secretarial support. Will maintain confidential administrative records and reports, perform considerable coordination and follow-through in assigned office area which requires planning and setting priorities. May direct the work of other support personnel as required.

Required Knowledge Skills, Abilities

Minimum six years' relevant administrative work experience including two years at BNL performing closely related work.

Extensive experience in developing and using reports on spreadsheets, or file management software programs

Demonstrated, expert level experience with the Microsoft Office Suite (specifically: PowerPoint, Word, Excel, Adobe Acrobat X-Pro and Outlook). Must be capable of fully utilizing Word advanced features to create and manage large, complex documents: automatic table of contents using headings and sub-headings, understanding the relationship between styles and the table of contents, utilizing section breaks and handling different page orientation within a document, captioning of figures and tables, inserting and managing graphic images, and working with templates. Providing examples of previously prepared complex documents is necessary

Experience in coordinating and arranging conferences and meetings, and in arranging domestic travel

Demonstrated ability to work with others cooperatively and to work independently setting own priorities, and handling multiple assigned tasks.

Knowledge of Lab practices, policies

Preferred knowledge, skills, abilities

Experience in arranging foreign travel.

Motor Vehicles

11 TOYOTA RAV4 MDL 4432K - 9.5K mi. Classic silver met, Orig Own, 2.5L DOHC 4cyl. w/ dual vvt-i, 4spd, AWD/at, abs, tilt whl, warr, excel, Movg sale. \$19K neg. Dipti, Ext. 2398.

08 HONDA ACCORD EX - 47K mi. 4-dr, well maint, leather, m/roof, 7 sp. audio, a/t. \$16,000. Jen, jpieniazek@bnl.gov.

06 HYUNDAI ELANTRA GLS - 96K mi. 4 cyl, black, a/t, a/c, abs, p/b, p/w, dual air bags, well maintd. \$4,800 neg. Ext. 4955.

03 FORD FOCUS SE - 135K mi. sedan, 4cyl, a/t, a/c, t. belt/brakes rec. changed, well maintd, clean, v/gd cond. \$2,700. hollyg1931@hotmail.com.

Boats & Marine Supplies

13' KAYAK - Ocean Pro Prowler, incl life jacket/seat/paddle/anchor, yak attack flag/light pole, homemade wheel cart/stand, ask/\$1000, call for pics. 560-6222.

BOAT COWLINGS - JOHNSON 235 fibrglass light damage; JOHNSON 175 great cond/cross-flow; FORCE 125 great cond. \$100/ea. Lynda, Ext. 7235.

MARINE SEXTANT - Davis Instruments Mark 3, in orig box, \$60/new, ask \$30. 286-1018.

Furnishings & Appliances

AIR CONDITIONER - GE window, 12000Btu, 115V, 3spd, remote, 2yrs old M/N AEH12AN, \$125. John, Ext. 8082.

GARDEN PATIO SET - Wrought iron, 3'x6' glass top table and 6 chairs, 2 w/ arms, Vintage/charming, \$65. 929-0596.

PORTABLE WASHING MACHINE - GE space-maker extra-lrg capac, model #WSL-P1100AWH, one-touch controls, stlss stl basket, works well, pics, \$150/neg. cyan@bnl.gov.

QUEEN MATTRESS & BOXSPRING - 2/ yrs old, v/gd cond, u-pic-up, \$200. ASAP. 875-2398.

WINDOW AC - GE 10,000Btu EER 10.8 remote 2yrs old \$100 & Sunbeam 5,200BTU 7yrs old/ \$35. little used, all excel cond. Steve, Ext. 4925.

Audio, Video & Computers

HP LASERJET 3055 - printer scanner copier fax, lightly used, reliable, excel cond, full specs at <http://tinyurl.com/fd-laser3055>, \$150/obo. fdonato@bnl.gov.

PRINTER INK HP93 - color, unopened box/\$10. Ernie, Ext. 7406.

TV - Sanyo CRT 32", AVM-3259G, w/remote; not a flat screen LCD TV; weighs ~50 lbs; great color, pic and sound, \$40. Brian, Ext. 8240 or bmccaffrey@bnl.gov.

Sports, Hobbies & Pets

AB LOUNGE - like new, \$35, fully assembled and ready to go, Summer is here!. brookhaven@optonline.net.

FENDER SWIVEL CASTERS - New in Box Fender Swivel Casters- push in type for Fender Amps. \$20. Rich, Ext. 8186.

FOOTSWITCH - Fender 3 Button Foot-switch, 1/4 jack, Channel Select, Drive/More-Drive, Effects. \$25. Rich, Ext. 8186.

ROCK CLIMBING GEAR - Stealth C4 5.10 Men's shoes, size US 12, \$45; blk diamond harness, mens' L, \$35; Brian, Ext. 8240.

SURFBOARD - "Roxy", 7.5', light blue w/ pink details, cushioned non-slip surface, leash incld, excel cond, \$300. 219-7196.

THULE ROOF RACK - 50" LB50 load bars, 2 pack w/end caps/50; THULE 400 f rck foot pack w/o locks, \$25. bmccaffrey@bnl.gov.

YAMAHA ALTO SAX - excel cond, w/2 new reeds, neck Strap, cork grease, case, 2/Band Music books, Music Stand, \$800. Mary, 929-0668.

Tools, House & Garden

ALUM ORNAMENTAL FENCE - 16 sections 4'h x 6'w, incl gate, gd cond, in Wading River, \$500. Steven, 219-6094.

GENERATOR - 2000 watts, Steele, half price, \$150, call Bob and leave msg. Robert, Ext. 4326.

MAESTRO GUITAR - new w/case, neck strap, Beginner CD extra strings and care booklet/\$75. Mary, 929-0668.

RADIAL ARM SAW - Craftsman 10", extra blades, on casters, works fine, \$100. Ext. 7235, 286-1018 or fitz@bnl.gov.



D4851011

CN10-116-96

NSLS & NSLS-II Tours, Laser Light Show, Talks, and More

This Sunday, July 22, when the gates open at 10 a.m. for the second of the free Summer Sunday tours of Brookhaven Lab this year, visitors will be able to tour the National Synchrotron Light Sources (NSLS) I and II.

NSLS-II will be one of the world's most advanced light sources upon completion — a giant x-ray microscope.

You can master the synchrotron quiz while visiting exciting exhibits and win prizes including a special tour of Long Island's brightest light! Obtain bus tickets after attending an overview in Berkner Hall, Room B.

The last facility visits begin at 3 p.m. No reservations are needed, and activities are first-come, first-served. Visitors age 16 and older must bring a photo I.D. A cafeteria and gift shop, also located in Berkner Hall, will be open until 2 p.m. and 4 p.m., respectively.

Science Talks

"Energy, CO₂, Climate, & You!" will be presented by Stephen Schwartz, Senior Scientist, Atmospheric Sciences, BNL, at the Science Education Center Auditorium: 11 a.m., 1 p.m. 3 p.m.

Science Laser Light Spectacular

Berkner Hall Auditorium: Noon, 1:30 p.m., 3 p.m.

Hands On Science Fun

Velocity up; pressure down! Experience the Bernoulli Principle in action, or, make your hair stand on end with our Van de Graaff generator at the hands-on science demonstrations every half-hour in the Berkner Hall lobby.

Recreation & Music at BNL

Several BNL employee recreational clubs will be on hand, including the Cycletrons motorcyclists, the Asian Pacific American Association with Chinese folk dance and calligraphy, the Antique and Classic Motoring Club, and the Camera Club. Bands will play music, including progressive rock by Calico Galaxy, alternative rock by Chris Lake and Friends, jazz by "Down a Fourth," and blues by Guitar Blues Band. See *BERA Bonanza* on p. 3.

Two more Summer Sundays will be held this year, featuring on July 29: the Center for Functional Nanomaterials, and on August 5: the Relativistic Heavy Ion Collider. See also www.bnl.gov/bnlweb/pubaf/pr/PR_display.asp?prID=1433.

ROPE HAMMOCK - Pawley's island rope 48"w, \$25; 7' patio umbrella w/concrete base & crank tilt/\$65; beach umbrella, 62", stripes/\$30, all new cond. 281-2767.

TUFF BIN STORAGE BOX - all purp lrg capac, black, molded-in hasps, rugged structural foam constr. 36"Lx21"dx19"h, used, \$30. Mary, Ext. 6344.

Miscellaneous

ESPN AIR HOCKEY TABLE - Glow in the dark, barely used, \$75, you pick up. dmcarthur@bnl.gov.

GLASS - 2 pcs of 22" x 64" glass from Anderson sliding drs/\$30 obo. Lynda, Ext. 7235 or fitz@bnl.gov.

GRILL - Master Forge Patio Barrel Charcoal grill, stell exterior, 16"x18" cooking surface 280 sq in, used once, \$50. Mary, Ext. 6344 or phraner@bnl.gov.

HO TRAINS - all in v/gd cond, 2 Stetson Mens Hats, 1 beige, 1 taupe, for further info pls email. forenza.lady@yahoo.com.

TABLE & GOLF SET - Poker & Blackjack, unused/\$40; Golf Set: Wilson Profile Sr Goller 12 pc set, stand bag w/2 shldr straps, head covers r/hand, \$190. Mary, Ext. 6344.

Happenings

RUFF RIDERS RALLY ON 7/22 - Join Save-A-Pet on this motorcycle fund raiser for the care of rescued animals. Starts at Petco on 25A in Rocky Point ending at Hooters in Islandia. Kickstands up at 11am. 473-6333.

Farewell Gathering

POSTMASTER JEANINE FORNSEL - Will be retiring. All are invited to bid farewell on July 26 from 12 to 3PM at the P.O. Anyone who would like to sign her card or give toward a gift please see Pat at the P.O. Pat, Ext. 2539 or progers@bnl.gov.

Lost & Found

FOUND DOG 7/5 - Brindle colored Pit Bull mix in Miller Place. v/affectionate, pls call if you know of someone missing this dog. Jim, Ext. 6222, 928-1411.

HIGH TOP COMPOSITE WORK BOOTS - Lost boots almost a week ago on BNL Shuttle Service. Exact date: July 5. If found please call 347-285-8508 promptly. Thank you.

LOST GPS WATCH - Garmin Forerunner 305. I'm rather sad. It's also fairly ironic. Places I may have left it: bldgs 555, 703, 170. Paul, 309-338-4161 or pkline@bnl.gov.

LOST SILVER CUFF BRACELET - approx 4 to 6 weeks ago. About 1 inch wide w/ a row of turquoise down the center. Hope someone found it! Thanks!! Gail, Ext. 4363.

Yard & Garage Sales

MOVING SALE - contents of home, all must go, 26 Hillcrest Ave, Port Jeff, Sat/Sun, July 21st/22nd, 10am-4pm. 473-1863.

RIDGE - garage sale multi-family, 7/21-22, 10am-till we shut it down, all kinds of stuff, 16 Eason Dr. jmoore@bnl.gov.

Free

CATS - Rescue Lady looking for loving homes for her rescue cats, few years old dark colored calico cat "Chicky" & orange and cream colored cat "John". Mary Ann, 399-0680.

TV - Sony 36", energy star, perfect cond, not a flat screen, u-pic-up, call after 5pm. Gloria, Ext. 6273.

WOODWORKING BOOKS - Time Life/Woodsmith hardcover woodworking project books. 14 in all. Ext. 8847, tleh@bnl.gov.

Wanted

BOARD 4 NIGHTS/WK, NYC - Antoine, 15, 12th-grader, lives Pt. Jeff, seeks board 4 nights/wk, from early Sept, (sch. yr) w/NYC family at bus or subway distance from Lycée Francais de NY on 75th E side. Francois, Ext. 8204.

FIREARMS - new or old, I will pay fair \$\$\$ depending on cond, if you don't want it, I will buy it. NO firearms brought on BNL Property. Joe, 487-1479.

ROOMMATE(S) - to share lg home or apt, off st prkg, quiet, safe neighborhd, BNL vicinity. \$700/mo neg. Kazek, 847-477-1634 or kazek@comcast.net.

For Rent

N. MYRTLE BEACH, NY - 2 bdrm 4 beds, 2.5 bath, Townhse on golf course w/ comm pool, daily/wkly/mo rates avail. \$700/mo. Chris, 516-660-0290.

CORAM - priv rm & b/r, share lg home w/2 males, \$550/ mo incls all, off st prkg, quiet, safe, furnd or unfurnd, backgrd/credit check, 1st mo rent/1mo sec. \$550/mo. 848-4381.

MILLER PLACE - Share furn. Col. home in prof. resid. area 10 mi. to BNL. AC/Heat, internet, own bdrm. all incl. Responsible, no pet .non-smoker. \$750/mo. 744-8386.

RIVERHEAD - 3/bdrm, 2/full bath, ranch, kit, dw, l/r, d/r, gar, new windows & furnace, quiet, nr shops, no smkg/pets, refs, credit ck reqd, 1/mo sec + util. \$2,150/mo. 512-6470.

RONKONKOMA - 4 bdrm, 2.5 bath, l/r, den, newly remodeled kitch, gar, 15 min to Lab, nr parks/shopping, great schools, 1 mo rent/ sec. \$2,100/mo neg. dmcarthur@bnl.gov.

SHOREHAM - 1 bdrm furn apt, l/r, d/r, full kitch & bath. no smkg/pets, pvt.ent/ drvwy. util.incl. 1mth sec. 5min to Lab. \$1,150/mo. Judy, 375-7957.

WADING RIVER - 3-bdrm. apt, 1-1/2 ba, kitch w/dining area, lg. l/r, yard, 1 blk to beach & W'wood St. Prk. No smkg/pets, utlis extra, 1 mo sec, refs req'd. \$1,675/mo. 886-1545.

For Sale

CORAM - spacious 1 bdrm co-op, updated kit & b/r, laundry across from unit, alarm syst, MLS #2501596 contact for link to listing. \$110,000. Ext. 8329.

RIDGE - just reduced, 1 bdrm condo in 55+ community, new carpet/paint, sunrm/ pool/ golf/ clubhse, taxes \$2,919 yr, 4/mi to BNL. \$64,500 neg. 849-3305.

S. SETAUKET - young Colonial, best price in 3-Village Green gated community, cac, 3 bdrm w/master suite w/Jacuzzi, 2.5 ba, full bsmt, 2-car g. \$419,000 neg. 473-5957.

SHOREHAM - 3 bdrm, 1.5 ba Col. on cul de sac, updated ba & kitch w/ss appli, new w/d, Den w/wdburning fp, gar, bsmt, lrg wood deck, wood shed, 10 min to Lab. \$339,000. 744-8793.

SMITHTOWN - great-rm hi ranch, dead end, rm for mom, attic, 1.5 gar, full bmt, fp, laundry rm, CAC, Cvac, 4 bdrm, Deck/ balc, 3 full ba, den, v/priv, walk town, park, RR, . \$425,000 neg. 516-808-3422.

In Appreciation

My family would like to thank everyone for their thoughts, prayers and condolences during the passing of our mother.

- Louisa Barone

On-Site Service Station

Open for business Monday through Friday, 7:45 a.m. to 5:45 p.m. Ext. 4034.