



Derek Lowenstein (left) accepts an Appreciation Award from DOE's Associate Director of Science for High Energy Physics Dennis Kovar.

DOE Honors Derek Lowenstein

For 50 years, the Alternating Gradient Synchrotron (AGS) has been making scientific breakthroughs, over half that time under the supervision of Derek Lowenstein. In acknowledgement, BNL's recent "90-50-10" celebration, which recognized the AGS's 50th anniversary, also commemorated Lowenstein's contribution. During the event's dinner, Lowenstein was presented with an Appreciation Award from DOE.

Dennis Kovar, DOE Associate Director of Science for High Energy Physics, stood to address the audience. As Kovar spoke, Lowenstein said he began thinking, "This sounds like it's aimed at me." Sure enough, Kovar concluded by presenting the Appreciation Award on behalf of William Brinkman, Director of the DOE Office of Science, who could not attend.

Upon receiving the award, Lowenstein found himself speechless. "I was totally taken by surprise that this happened," he said, adding, "I think it's a great honor to be acknowledged by the DOE Office of Science."

The award was given for Lowenstein's "outstanding leadership and service as Department Chair for the Collider-Accelerator Department at Brookhaven National Laboratory for 27 years." Lowenstein has also spent 10 additional years at the Lab. He arrived as an assistant physicist in 1973,

working in what was then called the "Accelerator Department." Two promotions later, he became Chair of the AGS Department, renamed the Collider-Accelerator Department after completion of the Relativistic Heavy Ion Collider brought two accelerators under Lowenstein's supervision.

Lowenstein stepped down as Chair in December 2009, but continues to work within the department as Associate Chair for Accelerator Applications and Education. In his new role, he works on projects such as the Center for Accelerator Science & Education (CASE), a collaboration with Stony Brook University. CASE aims to establish a formal degree-granting program at Stony Brook in accelerator physics and engineering, using BNL staff as mentors and teachers.

"This is a joint Stony Brook-BNL effort," said Lowenstein.

Another project involves the development of proton and carbon machines for cancer therapy. Beams of protons or carbon ions have the potential to kill targeted cancer cells while minimizing damage to normal tissue, which is a side effect of x-ray therapy.

Whether cultivating the next generation of scientists or curing cancer, one thing is certain: Lowenstein won't be celebrating his award with a vacation.

— Sophie Bushwick

RHIC/AGS Annual Users' Meeting Honors History, Welcomes Future

Members of the Relativistic Heavy Ion Collider (RHIC) and Alternating Gradient Synchrotron (AGS) user community celebrated the future and the past at their 2010 users' meeting by marking a trio of impressive anniversaries and an exceptional physics run. The annual meeting, held June 7-11, brought together about 180 participants to learn about recent results, updates from management, and the current funding picture.

Following three days of workshops and a symposium on education and public outreach — sponsored with the National Users' Facility Organization — attendees gathered in Berkner Hall for the plenary session and a special event: "90-50-10." The numeric-heavy celebration recognized the 90th birthday of Ernest Courant — one of three scientists who originated the idea of "strong focusing" accelerators — the 50th anniversary of the startup of the AGS, and the 10th anniversary of RHIC operations.

10th Run Exceeds Expectations

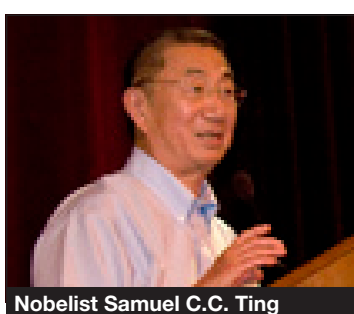
During the plenary session, presenters from BNL's Collider-Accelerator Department (C-AD) and the PHENIX and STAR experiments provided updates and details of Run 10, which provided beam collisions from New Year's Eve 2009 up until the week of the users' meeting in early June.

The run was devoted to gold-gold collisions over a wide range of energies, including the lowest beam energy ever attempted at RHIC — 3.85 GeV. This energy scan will help scientists search the nuclear matter phase diagram for a possible "critical point," a unique combination of temperature and net quark density that separates regions of sharp vs. smooth transitions between normal matter and quark-gluon plasma.

Run 10 experiments benefited from the highest luminosity — or beam intensity — ever seen in



Sam Aronson, Ernest Courant, Derek Lowenstein



Nobelist Samuel C.C. Ting



Nobelist James Cronin



Speaker Allena Oppen, NSF

RHIC, said run coordinator Kevin Brown (C-AD). This is due to a number of improvements made to the accelerator system, including bunched-beam stochastic cooling, lattice optics modifications to avoid instabilities, and new and improved feedback sys-

tems to more effectively control the optics and variations of the ion beam orbits. Luminosity was increased by a factor of two as compared to Run 7, Brown said.

That luminosity was extremely beneficial for experimenters at PHENIX and STAR, who met or exceeded all of their Run 10 goals, said Creighton University's Yuri Gorbunov and the City University of New York's Stefan Bathe.

"We owe C-AD a big, big thanks for a very successful run," said RHIC-AGS Users' Executive Committee Chair Carl Gagliardi.

Funding Outlook

Allena Oppen, program director for Nuclear Physics at the National Science Foundation (NSF), told users that, if approved, the President's request for fiscal year (FY) 2011 would boost NSF's overall budget by 8.2 percent. Of that, the physics division would receive a 2.8 percent increase.

"Unfortunately, the overall increase didn't filter down to physics as well as we might have hoped," Oppen said. The good news, she said, is that much of additional money coming into the physics division will be directed toward awards for private investigators; those programs would see an 11.4 percent budget increase over FY 2010.

See *Users' Meeting* on p. 4.
See more photos on pp. 2&3.

2010 Sambamurti Lecture, 7/20, 3 p.m.

Neutrino Physics at MiniBooNE

The neutrino is one of nature's most abundant yet elusive particles. For more than 50 years, neutrinos have surprised researchers: not only by their mere presence, but also by the recent revelation that these ghostlike particles can oscillate from one type to another. This stunning discovery has opened up a host of



Geraldyn "Sam" Zeller of Fermilab

new questions about neutrinos and their properties — questions that scientists are currently in a global race to answer.

On Tuesday, July 20, join Geraldyn "Sam" Zeller of Fermilab's Neutrino Department, who will give the 2010 Sambamurti Memorial Lecture, entitled "Expecting the Unexpected: Neutrino Physics at MiniBooNE," in the Large Seminar Room of the Physics Department, Bldg. 510. Refreshments will be served at 3 p.m. and the lecture will start at 3:30 p.m. This free talk is open to the public. Visitors to the Lab ages 16 and

older must carry a photo I.D.

During her talk, Zeller will discuss recent results from the ongoing Booster Neutrino Experiment (MiniBooNE) at Fermilab — an experiment designed to investigate the signals of oscillating neutrinos. She will also include a projection for what

the future holds. "If history is any indication, we are in store for an exciting ride," says Zeller.

Zeller earned a Ph.D. in physics from Northwestern University in 2002. She then went on to Columbia University as a postdoctoral researcher from 2002 until 2007. She became a research associate at Los Alamos National Laboratory in 2007 and continued there until 2009. She joined Fermi National Accelerator Laboratory, where she presently works, as an associate scientist in 2009. She has...

See *Zeller's Talk* on p. 4

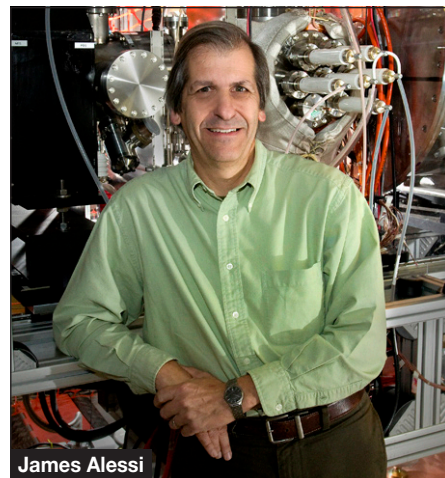
Brookhaven Lecture, 7/21, 4 p.m.

Ion Sources, Preinjectors, and the Road to EBIS

Gold, copper, iron, or silicon ions, deuterium, polarized protons, and more — providing particle beams of these different species for the Relativistic Heavy Ion Collider (RHIC) and the other major accelerators at Brookhaven National Laboratory is no common task. Although the sources for these particle beams are relatively small and inexpensive compared to the rest of a large accelerator, the intensity, quality, and reliability of the beams produced by different sources can have a big impact on how productive an accelerator can be.

On Wednesday, July 21, join James Alessi of the Lab's Collider-Accelerator Department (C-AD) for the 459th Brookhaven Lecture, titled "Ion Sources, Preinjectors and the Road to EBIS." All are invited to attend this free talk, which is open to the public and will be held in Berkner Hall at 4 p.m. Refreshments will be offered before and after the lecture. Visitors to the Lab ages 16 and older must carry a photo ID while on site.

During his talk, Alessi will describe C-AD's long history of developing state-of-the-art ion sources for its accelerators as



James Alessi

well as the current process for developing sources and preinjectors. He will also provide an update on the features and status of the Electron Beam Ion Source (EBIS) — C-AD's newest source and preinjector, which will soon be commissioned at RHIC.

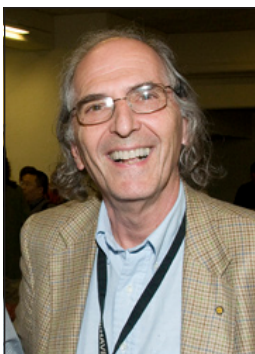
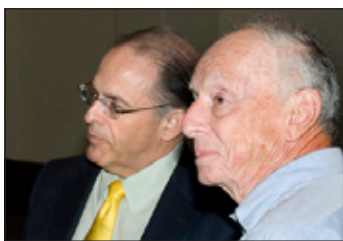
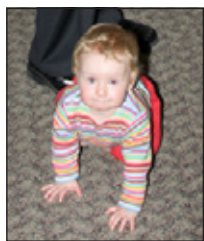
To join Alessi for dinner after the talk at an off-site restaurant, contact Sandy Assele, Ext. 4550, sandylee@bnl.gov.

Alessi earned a Ph.D. in physics from...

See *Alessi's Talk* on p. 4

THE 2010 RHIC/AGS USERS' MEETING, INCLUDING THE 90-50-10 CELEBRATION

Photos by Roger Stoutenburgh



RHIC/AGS Annual Users' Meeting Honors History, Welcomes Future

Users' Meeting from p. 1

Opper also called attention to NSF's solicitation for Physics Frontier Centers, which supports university-based institutes focused on making transformational advances. The preliminary proposal deadline is in early August.

Earlier in the week, the DOE perspective on nuclear physics funding and outlook was presented by Tim Hallman, the Associate Director for Nuclear Physics within DOE's Office of Science. Hallman presented recent research highlights and upcoming facilities funded by the Office of Nuclear Physics. He emphasized the importance of making the case for how technological developments driven by basic research needs are addressing more general needs of society, and included many recent examples in his talk.

Triplet Anniversary

The "90-50-10" celebration, held on the last two days of the meeting, filled Berkner Hall with an audience eager to hear reminiscences and talks about the past, present, and future of RHIC and AGS. More than 20 scientific leaders, including two Nobel Prize winners for work done at BNL, took the stage with stories of Brookhaven's early days, fierce international competition, and building physics equipment with their own two hands.

"When I got here, it looked like an army camp, filled with barracks," said Courant, the man of the hour, who first visited Brookhaven in 1947. "Part of the hospital had been made into apartments. My wife and I stayed in one of the apartments — inaugurated them, really — and we're staying in one of them tonight."

In 1948, Courant joined BNL "for good" as a member of the team assembling Brookhaven's first accelerator, a proton synchrotron called the Cosmotron. It was the first machine to send particles to the billion electron volt, or GeV, region. In 1952, after reaching the world record of 1.3 GeV — almost five times more energy than ever achieved — word of BNL's success traveled quickly, Courant said. It particularly interested a team of European physicists who wanted to build a similar, but larger, machine at CERN and formed a study group with the Brookhaven physicists to figure out how it could be done. Building an accelerator 10 times more powerful than the Cosmotron with existing technology would require 100 times more steel and would weigh about 200,000 tons. It was during one of these meetings that Courant, M. Stanley Livingston, and Hartland Snyder presented a solution to this barrier: strong focusing. The breakthrough was achieved by alternating the ori-



Roger Stoutenburgh 05/08/010

With Lab Director Sam Aronson (right) are (from left) Burak Alver, Massachusetts Institute of Technology; Michael McCumber, University of Colorado at Boulder, who each won the thesis award and \$3,000. Accepting the honorable mention award on behalf of Irakli Garishvili, University of Tennessee, is Soren Sorensen, also of the University of Tennessee.

entation of the magnets (which had all faced the same way in the Cosmotron) so some of their field gradients faced outward and some faced inward.

When the BNL physicists told the Europeans about their idea, one of them remarked, "I could kick myself that I haven't thought of that," Courant said.

This new principle was the basis for BNL's Alternating Gradient Synchrotron, CERN's Proton Synchrotron, and numerous other accelerators around the world, including RHIC, where Courant continued to make important contributions.

"Little did I know when I joined Brookhaven back in 1948 that accelerator physics would be my whole career," he said.

Samuel C.C. Ting, who shared the 1976 Nobel Prize in Physics for the discovery of the J/psi particle, told the audience about his experience with precision experiments on the ground, and most recently, in space.

Ting, who has worked at DESY (the German Electron Synchrotron), AGS, the Positron-Electron Tandem Ring Accelerator (PETRA), and the Large Electron-Positron Collider (LEP), now is heavily involved in the Alpha Magnetic Spectrometer (AMS), a detector that will soon take its home in the International Space Station (ISS) to study charged cosmic rays. In his 40-something year career, Ting said one of his most difficult tasks was acquiring five tons of soap (along with 100 tons of lead and five tons of uranium) for Experiment 598, the AGS study that eventually revealed the J/psi particle.

Ting is now working on something just as challenging, if not more so: sending AMS into space. Backed by institutions from 16 countries (and about 600 scientists), AMS will measure high-energy charged cosmic rays in order to search for antimatter, dark matter, and other mysteries of the universe.

NASA is scheduled to deliver the detector to the ISS on its last scheduled shuttle launch in November 2010, Ting said.

"My biggest worry is that

this is different from accelerators," he said. "In accelerators, if something goes wrong, you can go down by yourself or send a student down to fix it. In space, one mistake will be your last mistake."

The second Nobel winner to speak, James Cronin, talked about his early days at Brookhaven, first as a research associate at the Cosmotron, and then as a visiting scientist from Princeton at the AGS.

"I want to stress that Brookhaven for me was an extraordinary experience, not only because of what I learned and did in my own physics, but because of all of the people who surrounded me," Cronin said.

Cronin, who first came to the Lab in 1955 with a starting salary of \$500 per month — "Today, that's one big meal for four people in New York City" — reminisced about the discovery of the long-lived neutral K meson, playing bridge while waiting for the Cosmotron to start up, and the groups of "really, really smart" graduate students who would use the machine.

"I was so lucky to have this experience of interacting with these high-class, smart people going after problems that could be solved with simple, short experiments," he said. "That gets into your culture."

Years later, while at Princeton, Cronin made what would be a Nobel Prize-winning discovery with colleague Val Fitch at the AGS, where they had set up a detector built mostly with their own hands. The experiment only ran for one week in 1964.

"You only have to look at the messiness of this book to know that the run was not smooth," Cronin said while displaying a copy of the historical logbook.

But the 5,211 measured events revealed something very surprising: two different particles can decay into the same products, a violation of a fundamental tenet of physics known as CP.

The audience also heard about the future of accelerator physics at Brookhaven from numerous scientists and managers, includ-

ing Thomas Roser, Chair of the Collider-Accelerator Department, and Steve Vigdor, Associate Laboratory Director for Nuclear and Particle Physics.

In short, Roser said, RHIC's future will include further increasing the luminosity and polarization (RHIC-II science), installing a new injector to replace the Tandem Van de Graaff (the Electron Beam Ion Source — EBIS), and eventually, adding a new electron-ion ring — eRHIC.

EBIS will be a low-maintenance, linear accelerator-based injector capable of producing bright beams and intense bunches of many species of ions, including uranium and helium-3, Roser said. It is being installed now, and could be ready for use in Run 11.

If awarded to Brookhaven by DOE, eRHIC will be based on an Energy Recovery Linac (ERL), a new concept in accelerator technology in which the beam is captured after collision, slowed down, and dumped at the same energy it was produced. This allows for the production of very high-brightness electron beams without limitation from synchrotron radiation, Roser said.

RHIC's future sits firmly in the Laboratory's vision for the next 10 years, which, as Vigdor summarized it, is "discovery to deployment in studying femtomatter to nanomatter supported by state-of-the art accelerator facilities, RHIC and NSLS-II."

"RHIC is an enormously versatile facility just entering its scientific prime," Vigdor said, adding that through stochastic cooling, RHIC physicists were able to achieve an order of magnitude improvement in heavy ion collision rates four years earlier and at 1/7 the cost that was originally envisioned. Combined with detector upgrades, the RHIC-II science era will permit researchers to quantify the properties of quark-gluon plasma, search for the "critical point," and study local symmetry violation.

"All this will keep RHIC as the world's premier facility to study matter under early-universe conditions, even as the Large Hadron Collider (LHC) research program ramps up," Vigdor said.

In between RHIC-II science and eRHIC, estimated to start around 2020, Vigdor said a medium-energy version of the electron-ion collider, called MeRHIC, is a possibility. MeRHIC would start at about 5 GeV and be built up to 30 GeV over time.

BNL also will continue its legacy in particle physics, Vigdor said, through the ATLAS experiment at the LHC, neutrino experiments like the Daya Bay Neutrino Experiment and the Long Baseline Neutrino Experiment, and cosmology experiments including the Baryon Oscillation Spectroscopic Survey, the Dark Energy



Roger Stoutenburgh 07/05/010

Users' Executive Committee Chair Helen Caines of Yale University presents the best poster award to William Foreman of Stony Brook University.

Survey, and the Large Synoptic Survey Telescope.

"We have a real opportunity to position ourselves as a national center for discovery to deployment in accelerator technology," Vigdor said, noting historical BNL breakthroughs such as strong focusing and the Chasman-Green Lattice, the new formation of the joint Brookhaven/Stony Brook University Center for Accelerator Science and Education, and the possible double use of eRHIC's ERL as an x-ray free electron laser that would deliver world-leading brightness for materials studies.

"This expertise and culture of accelerator science and technology is the gift that keeps on giving," Vigdor said. "It's the unifying force underpinning the approach to our femtomatter to nanomatter destiny. It is the real legacy of Ernest Courant, the AGS, and RHIC, as well as other recent BNL honorees."

— Kendra Snyder

Other speakers included Ronnie Rau (BNL), "AGS History"; Douglas Bryman (TRIUMF) "Seeking New Physics with Rare Kaon Decays"; Konstantin Goulianos (Rockefeller University), "Two Neutrino Experiment"; Paul Langacker (Institute for Advanced Study), "Frontiers in Neutrino Physics"; David Kaplan (University of Washington), "Frontiers in Nuclear Theory"; Sally Dawson (BNL), "Frontiers in Particle Physics"; Mark Barton (BNL), "Reminiscences of Ernest Courant, and the Startup of the AGS and RHIC"; Nicholas Samios (BNL), "The Road to RHIC"; Tom Ludlam (BNL), "How the RHIC Experiments Came to Be"; Tom Hemmick (Stony Brook University), "Sailing the Perfect Liquid: Highlights and Discoveries of the Four RHIC Experiments"; Raju Venugopalan (BNL), "Lessons in Extreme Quantum Chromo Dynamics from RHIC"; Frithjof Karsch (BNL), "30 Years of QCD Thermodynamics on the Lattice"; Jamie Nagle (University of Colorado at Boulder), "The Science of RHIC-II: Today and Tomorrow"; Robert Jaffe (MIT), "The Long Search for the Spin of the Proton"; Gerry Bunce (BNL), "Spin"; and Elke Ashenauer (BNL), "The Structure of Matter, What the Electron Ion Collider Will Teach Us."

Watch videos of the speeches at the 90-50-10 celebration: <http://www.bnl.gov/905010/>.

Photos from both events are on pp. 2 and 3 of this Bulletin.

CLASSIFIEDS ARE ON P. 6 OF THE BULLETIN

Zeller's Talk from p. 1

...been a member of the Mini-BooNE collaboration since 2004.

The Sambamurti Memorial Lecture was established in 1992 to commemorate the work of

Aditya Sambamurti, a young BNL physicist who died of cancer in 1992 at age 31. Each year, an outstanding young physicist whose professional interests overlap those of Sambamurti is selected to deliver the lecture.

Alessi's Talk from p. 1

...the University of Pittsburgh in 1979. He also first joined Brookhaven Lab in 1979 as an assistant physicist at the Alternating Gradient Synchrotron (AGS). He was promoted to associate physicist in 1981, and physicist in 1983. He worked

as the group leader for the AGS Department's Advanced Source Development Group from 1984 until 1999 and group leader for the AGS Department's 200 MeV Linac group from 1986 until 1999. Then in 1999, he took on his present role of group leader for C-AD's

Preinjector Group. He has also served on numerous review committees for other Department of Energy laboratory developments and upgrades. In 2009, Alessi was named a Fellow of the American Physical Society.

— Joe Gettler

THE BULLETIN CONTINUES ON PP. 5 & 6



Roger Stodden/burgh d560610

Traffic Safety at Brookhaven Lab: It's Everyone's Issue

Summer is upon us and it's a busy time at the Laboratory. The on-site population has increased considerably with all of the students, visitors, and guests coming to take advantage of the great opportunities BNL provides for science and education. With all this activity, the Lab's roads are even more crowded and there are a lot of walkers and bicyclists sharing the roads.

"Each and every one of us should renew our commitment to driving safely, both on and off site," said Laboratory Director Sam Aronson.

"While the BNL streets seem pretty safe, we have a track record of accidents and injuries related to motor vehicle accidents that leaves lots of room for improvement," added Interim Assistant Laboratory Director (ALD) for Environment, Safety & Health George Goode.

The Lab site had 20 motor vehicle accidents to date this year, compared to 49 in all of last year. Most of these occur when drivers back out of parking spaces, but some are far more serious, resulting in injuries, damages, and significant costs.

Earlier this year, the Lab introduced a new approach to traffic safety that included clear, fair and consistent consequences for those who fail to follow traffic regulations and put the health and safety of themselves and others at risk.

"The disciplinary actions for traffic violations are graded into three levels, with serious consequences for Level 3 violations including but not limited to a day off without pay and required training," Goode said. See the Traffic Safety subject area for details, https://sbms.bnl.gov/sbmsearch/subjectarea/128/128_SA.cfm.

These regulations will be enforced uniformly across all employee levels, as well as with users, guests and contractors. Lab

leadership, including ALDs, is directly involved in ensuring that all specified disciplinary measures are taken in a timely manner.

"Despite this effort and ongoing enforcement by Lab police officers, we continue to observe many violations," Goode said. "In fact, employees regularly report back to me their concern about drivers speeding, rolling through stop signs, not using hands-free cell phones, not stopping for pedestrians at crosswalks, and violating other traffic regulations."

"We've got to do better," Goode added.

The Lab recently instituted several new traffic safety measures to help build a culture of safety and encourage greater compliance with traffic safety regulations. These include two speed monitors, portable crosswalk signs, and a simulator for new drivers, which was recently demonstrated during Safety Day and will soon be put into permanent operation at Brookhaven Center.

Traffic safety is an important part of the Lab's comprehensive plan to improve safety performance. In fact, this is part of the Blueprint's overall efforts to significantly improve safety performance at BNL.

"Please do your part. Demonstrate that you respect the safety of your colleagues by obeying the posted speed limit, stop signs and all other New York State traffic regulations," Goode said. "When you embrace driving safely on site, you will find that your driving behavior outside of BNL will improve significantly as well, and hopefully will set a great example for your family and friends."

Bicyclists are also required to follow the rules of the road. BNL requires all bicyclists on site to wear an approved helmet, and to adhere to traffic regulations: stop at red lights, obey signs, observe speed limits, and follow lane markings.

FIRE SAFETY

Recognizing and Preventing Fire Hazards On Site

To prevent serious incidents from happening, the Quality Management Office (QMO) and the Safety and Health Services Division have reviewed the Occurrence Reporting and Processing System's (ORPS) reported incidents and near misses to identify emerging safety trends and issues. One of these is fire hazards.

"The Laboratory has experienced several small fires, plus incidents that could have sparked a fire, in recent months," said Helen Todosow, QMO. "These events reflect the full spectrum of activities at Brookhaven, including construction, scientific experiments, and cigarette disposal. In these dry, hot summer months, these events pose an increased risk and concern for all of us."

Here are a few examples of recent events and suggestions for how you can help prevent future incidents:

Scientific Experiment Fires

Research and experimental activities can create fire hazards. Recently, a researcher was taking a sample of phosphorus when it ignited. The sample container was quickly closed and placed into a fume hood. The fire self-extinguished and no one was injured. The researcher was wearing appropriate personal protective equipment (PPE), including gloves, lab coat, and safety glasses.

"This fire demonstrates how important it is for researchers to wear proper PPE when conducting experiments," said Ed Nowak, manager of the Safety and Health Services Division.

Another research-related fire occurred when wrapping paper on plant stem samples smoldered and self-extinguished in a low-temperature drying oven. The investigation determined that the thermocouple in the drying oven had failed, allowing the unit to surpass the 55-degree-Celsius automatic shutoff. The unit reached the auto-ignition

temperature of the paper (220 degrees Celsius), setting the paper on fire, before shutting off.

"This incident is a strong reminder to be aware of potential hazards and to take precautions when leaving any experiments unattended," Todosow said.

Construction Fires

Construction and environmental restoration activities can pose fire hazards. Recently, two fires occurred at a construction site when welding slag ignited nearby materials. Advanced work planning that included fire watches ensured that these fires were quickly extinguished. Plastics and insulation can ignite very quickly if welding slag comes in contact with them.

"Always consider the possibility of potential slag or molten metal hazards that may be encountered during welding and construction activities," Nowak said. "Special attention should be paid when working in confined areas or unusual space configurations, and when welding may involve any unusual positions for the welder. Fire blankets and/or other engineering controls should be used to eliminate or control potential slag or molten metal hazards."

Smoking-Related Fires and Near Misses

Five known smoldering events and one fire in cigarette butt disposal containers (also known as "Butt Stops") have occurred across the Lab site in the past three months.

"As a point of reference, the Lab had only two similar events the previous year," Todosow said. "Fortunately, most of the recent events were contained, and all were discovered and extinguished in a timely manner. However, the recent flurry of site-wide cigarette-related events demands increased attention to the careful extinguishing and disposal of smoking materials and proper maintenance of cigarette butt disposal containers."

To minimize fire risk, abide by safe smoking practices, including completely extinguishing cigarettes in containers, not throwing lit butts into combustible material, and never depositing general trash or paper in Butt Stops.

Everyone at the Lab should do their part to ensure safety by periodically observing Butt Stops. If a Butt Stop contains trash or is over-filled with butts, notify an ESH coordinator, your building manager, or Custodial Services, Ext. 8235. If smoke, fire, or suspicious smoldering conditions are present, contact Emergency Services at the numbers below.

The best safe practice is to stop smoking. The Laboratory Health Promotion Program has hosted Suffolk County's "Learn to Be Tobacco Free" on site since 2003, with outstanding results. Employees, guests, spouses, family members, and others have taken advantage of this program that combines assistance with behavior changes and pharmaceutical support.

Fire Prevention: Operations, equipment, and people contribute to fire risks on site, so work planning, safety practices, and diligence are essential to creating and sustaining a fire-safe work environment.

If you see fire, smoke, or smoldering materials, smell any smoke or burning-type odors, or see any visible signs of past smoldering and fire damage, call the Laboratory Protection Division's Emergency Services at Ext. 2222 or 911 from a Lab phone. From a cell phone, pay phone, or off site, call (631) 344-2222.

"Any evidence of past or extinguished fires or fire damage should be reported to your ESH coordinator, building manager, Emergency Services, and management," Nowak said.

More Resources: Visit the Safety intranet at <http://intranet.bnl.gov/safety/news> for links leading to more information about the topics referenced in this article.

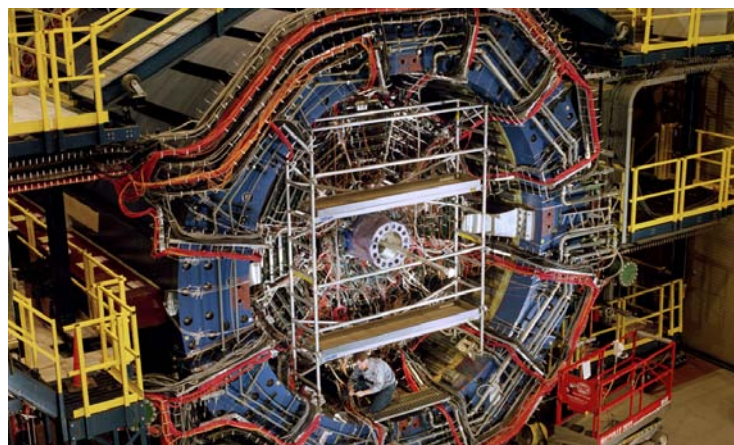
Arrivals & Departures

— Arrivals —

Salvatore Fazio	Physics
Paul Jacob	Physics
Charles Kitegi	NSLS-II
Reinhold Mann	ELS
Ruth Pietri	NSLS
Eric Stach	CFN
Young Seo	Medical
Zhijie Sun	Biology
Kwinten Van Weverberg	Env. Scis.
Yi Yan	Biology

— Departures —

John Benjamin	C-AD
Palani Kandavelu	Biology
Damodharan Lakshminarasimhan	Bio
Chi-Cheng Lee	CMP&MS
Girish Mishra	Biology
Boris Morozov	Physics
Fulvia Pilat	C-AD
Faisal Reza	Biology
Timothy Sailer	Dep. Dir. Ops.
Kenneth Sutter	CMP&MS
John Taylor	BE&S



CNS-13-01

Employee Lunchtime Tour: STAR Detector, 7/23

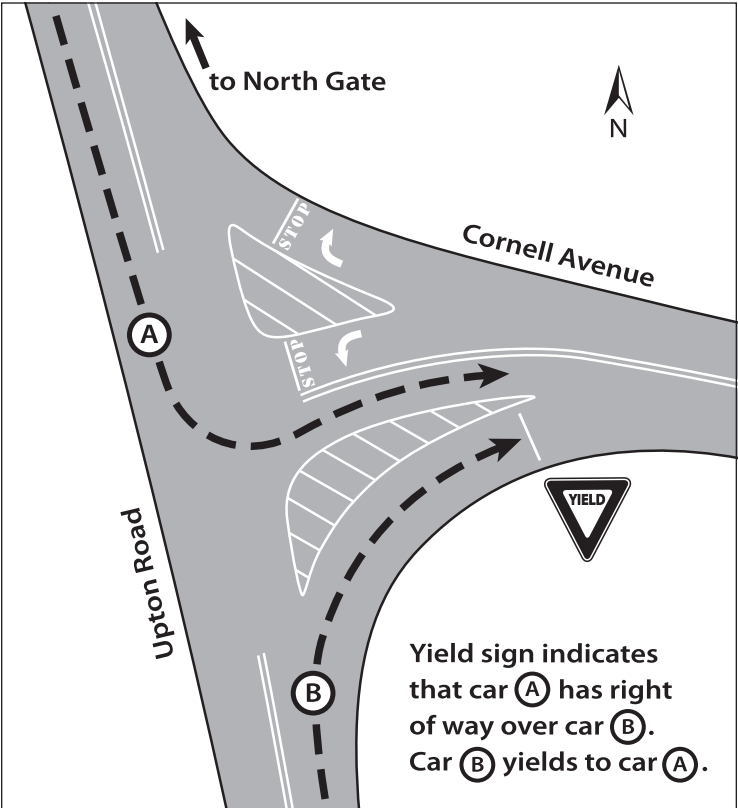
Celebrate the 10th year anniversary of the gigantic STAR Detector at the Relativistic Heavy Ion Collider by participating in an Employee Lunchtime Tour on July 23 to see the detector for yourself. Employees, retirees, students, and all the Lab community are welcome to join the tour to see and hear about STAR's design and the research accomplished there. The group will meet at the upper lobby of Berkner Hall at noon to be taken to STAR and will return by 1 p.m. No registration is needed.

BNL Registration Stickers Starting '09' Must GO!

All BNL employees, guests, and retirees who have a blue vehicle registration sticker beginning with the numbers "09" must have it updated. The "09" stickers expired on December 31, 2009, and should be replaced. Those with stickers beginning with "10," "11," or "12" do not have to take any action.

Defensive Driving Course: Two Parts, 7/26 & 29

The next six-hour Defensive Driving (Point & Insurance Reduction) course will be held in two parts, on Monday and Thursday, July 26 and 29, in the Brookhaven Center South Room, 6-9:15 p.m. The course is open to BNL, BSA, and DOE employees, facility-users, and their families. The cost is \$33 per person. Preregistration is required. To register, call Ed Sierra, 821-1013, and leave a message. Or take a New York DMV-approved course (Use code: "SAVE10" for \$10 discount) online: <http://www.lidriveSAFE.com/>.



Right-of-Way at Cornell/Upton Intersection

Vehicles on Upton Rd. turning left at the intersection with Cornell Avenue have the right-of-way over vehicles turning right off of Upton onto Cornell. This is to protect vehicles making that left turn onto Cornell Avenue and is in compliance with traffic regulations.

A diagram of the intersection and traffic pattern is located above. Keep in mind that vehicles going straight on Upton Road toward the North Gate maintain right-of-way over turning vehicles.

Classified Advertisements

Access many more current job openings on the World Wide Web at www.bnl.gov/HR/jobs/ and see also <http://www.bnl.gov/HR/careers/>

LABORATORY RECRUITMENT - Opportunities for Laboratory employees only.

MAIL CLERK - Under immediate supervision processes, picks up and delivers incoming, outgoing and intra-Laboratory mail. Training required. Staff Services Division. Submit Transfer Request form referencing Job ID #15427 to Diana Hubert, HR, Bldg. 400B.

MATERIAL HANDLER (L-3) - Performs a variety of laboring and manual tasks in stores operations such as moving, loading, unloading, sorting and storing of materials. May operate motorized equipment pertinent to stores operations. Keeps stores facilities in neat condition. Procurement & Property Management Division. Submit Transfer Request form referencing Job ID #15428 to Diana Hubert, HR, Bldg. 400B.

Motor Vehicles

04 HONDA ACCORD EX - 100K mi. excel cond, 4 cyl, 4dr, 6cd changer, hwy mi, orig, abs, ask/. \$13,000 neg. Sachin, Ext. 2197.
03 TOYOTA RAV-4L - 129.6K mi. silver, 4cyl, 5spd man, p/w, p/l gd cond, well maintd. \$7,800 neg. 220-5864.
00 FORD E-150 CARGO VAN - 100K mi. V8, a/c, removbl rear pass. seat. \$3,500 neg. Ext. 7443 or porqueddu@bnl.gov.
00 HYUNDAI ELANTRA GLS - 124K mi. 4 cyl, 4 drs, pw, ps, ac, gd cond. \$1,800 neg. Sumit, Ext. 3594, 312-404-6205.
98 FORD ESCORT - not running real clean just want to get rid of. \$200 neg. Bobbi, 291-0245 or bmicari@bnl.gov.

Boats

28' RINKER FIESTA V 260 - '92 Cruiser, prof maint, new top, prop; slps 4, 84 roller trlr, in water @ Mt. Sinai, \$9,400 neg. Ext. 4320.
18' SEA RAY 180SPORT - '04 Bow Rider, 135hp Merc Alpha I/O, extras, low hrs, excel cond, \$13,000 neg. Ext. 5785, 374-5591.
KAYAK - Wilderness Systems "Sea Otter", 16'L w/ rudder and compass, fiber-glass, red & white, \$750. Nick, Ext. 2490.

Furnishings & Appliances

AIR CONDITIONER - 8,000 BTU, gd working cond, \$30. fdonato@bnl.gov.
BABY CHANGING TABLE - \$20, pics avai, white wood, 2/shelves for storage, for charity. Ext. 5894, 475-1297.
BED - Q/size platform bed, oak in gd cond, no mattresses, you name price & pic-up. Jae, Ext. 2337 or jaehjo@gmail.com.
RCA TV - 24"- combo w/36"x24"x60"/ oak cabinet; excel, make offer. 928-6930.
ENTERTAINMENT CENTER - and 6-drawer dresser, \$30/ea, pics avail on request. brookhaven@optonline.net.
FILE CABINET - 3-drawer narrow format; solid pine wood, \$50. Nick, Ext. 2490.
FULL SIZE MATTRESS - SERTA, w/matching box spring/\$350, barely used, grt cond. Mary, Ext. 2711 or mchuc@bnl.gov.
GLIDER ROCKER - maple chair, \$215, 516-740-8418 or lcade@uspsports.com.
ROLL AWAY TWIN BED - single guest bed, folds in half to store, has wheels, ask/\$50. Ext. 3906 or mschwart@bnl.gov.

STOVE AND RANGE HOOD - white, work well, self-cleaning stove/\$25, hood/\$10, will deliver. Mike, Ext. 2947 or hanson@bnl.gov.
TVS, COLOR - 20" Panasc w/workg VHF Tape Plyr, 5 yrs old, no rem, \$25; 20", no rem, sm. scrchts on scrn \$15. schlock@bnl.gov.

Audio, Video & Computers

HP 1030NR 10.2IN MINI NETBOOK - perfect cond, 2gb Ram, 16gb SSD, a/c adaptor, WiFi, Windows 7, \$200. 516-639-5152.
IPHONE 16GB JAILBROKEN - hardly used, \$250. Matthew, milardo@bnl.gov.
PHOTO & NEGATIVE SCANNING - www.pictureperfectscans.com scans & color corrects to DVD, music slideshows avail, Port Jeff. Dianne, 928-6469.
PRINTER - HP Photosmart C4580 all-in-one printer w/card reader, USB/802.11b/g wireless, 1.5" LCD, w/inks, \$35. 627-9725.
SONY DVD/CD HDMI PLAYER - DVP-NS72HP w/connector cables, excel cond, \$40. 344-1051 or woolythedog@gmail.com.
TV - Toshiba, 27", tube, v/gd cond, \$60. hoffman1@bnl.gov.

Sports, Hobbies & Pets

36' RV TRAVEL TRAILER - Ltd Ed, w/d, 2 slide outs, cust cabinets/couches/love-seat, mint \$7,900/obo. Rick, Ext. 3005.
DOG CRATE - for med-lg dog, plastic, hardly used, \$30. Kelly, Ext. 4901.
KAYAK - 12' mnstrm Kingfish sit on top kayak, w/paddle/fl jckt/pole hldr/crate/compass, Thule Kyk Carrier, \$675, Ext. 3823.
PET CARRIERS (4) - 3 sm, 11"x 11"x16" \$10/ea, 1 med 17"x14"x23" \$20; all plastic w/metal drs, pics avail. schlock@bnl.gov.
SHOTSHELL RELOADER CHARGE BAR - Universl, adjbl. bar fits MEC reloaders, Multi-Scale Charge Ltd. mdl D/DS, \$15. Ext. 7239.
UPRIGHT PIANO - "cable", s/n 446038, USA,1979, tuned, pic/appraisal avail, grt sound & touch, \$500/obo. 476-4983.
YANKEE TICKETS - vs Kansas City, July 23rd, 7pm, Section 212, Row 13 Seats 9-12, 4 tickets, \$60/ea. Barbara, Ext. 3313.

Tools, House & Garden

14V DEWALT DRILL KIT - 3 spd, cordless, torque clutch. 2 XRP battery packs w/charger. 1 yr old, \$70. Travis, shrey@bnl.gov.
CRAFTSMAN 10 - over 50 yrs old, but runs well. Stand & attchmt, gd home & reasonable offer takes it, X3455. Rich, 219-7047.
LANDSCAPE TIE SPIKES - apprxx 100 pcs in box, 10"Lx3/8"D, \$40; leaf blower Homelite HB-180V, works, \$20. Ext. 7239.
WEEDWACKER - Craftsman, gas, 32cc, 1.9 cu in, excel cond, make offer. 928-6930.
PIPE WRENCHES - Rigid 30",24",18", 14" &10" \$20/set; 36" bolt cutter \$10; 1 ton rtcht chn hoist \$10; 1 tn chn hoist/\$10. 872-8963.

Miscellaneous

GPS SYSTEM JENSEN NVX200 - 3.5" screen, almost brand new. Kuanping, Ext. 4675 or kgong@bnl.gov.
HDTV ANTENNA - Antennas Direct DB2, multi directional, gain of up to 11.4 dB, \$15. Youngsik, 627-9725, yyscho@bnl.gov.
IMAGINARIUM TRAIN TABLE - w/2 drawers, gd cond, a few scratches, pics, ask/\$30. 236-2465 or williams@bnl.gov.
MOTORCYCLE JACKET - Joe Rocket, Ballistic Series, Meteor 4 jckt, sz sm, used 1 wk, \$200/new, \$75. Linda, Ext. 3750.
POND SHELLS - 2 hard plastic pond liners, ask/\$85/both. mike, 816-0707.

Students, Staff, Visitors — Talent Show, 7/27

Talented summer students, Lab staff, and visitors are invited to take the stage at BNL's annual Summer Talent Show, to be held in Berkner Hall at 5:30 p.m. on Tuesday, July 27. Organized by the Office of Educational Programs, the show will feature students, BNL staff, and visitors who sing, play instruments, or share dramatic moments and comedy.

If you have a talent you'd like to share, contact Joseph Heard, jheard@bnl.gov or Ext. 4237. Interns who participate may win a prize. Or, come to watch: admission is free! Visitors to the Lab of 16 or older must carry photo I.D.

School Supply Drive Now in Progress

BERA's annual School Supply Drive for needy local children has begun. Please donate any new school item, from pencils and scotch tape to lunch boxes, calculators, and backpacks. All items must be new. Collection bins are in the Bldg. 400 lobby by the Badging Office and at the BERA Store in Berkner Hall. Cash donations are also welcome: send a check made out to BERA and marked "School Supply Drive" to Chris Carter, Bldg. 400.

STAIRMASTER - 4K-Pt/barely used, pd/\$2K; 9'x10'oriental rug w/pad; all excel cond, make offer. Maurice, 928-6930.
RUSH CONCERT TICKETS - 2 for Sat 7/24, 8pm, Jones Beach Theater. Sect 8R Row CC. \$75/ea/obo. James, Ext. 2888.
TICKETS - NATALIE MERCHANT - 6 tickets, Friday 7/16, Town Hall, NYC, \$50 ea/obo. pizzulli@bnl.gov.

Happenings

CRUISE - 7-Day Caribbean Cruise, Apr 10, 2011, to Cayman Islands, Cozumel, Isla Roatan & Belize w/2 days at sea. \$789. 72pp dbl occup balcony. Dep req'd. 399-3098.
REACTOR DIVISION REUNION - August 27, 5:30 PM, Brookhaven Center, contact Bob Wayte, 286-2484, or Dan Oldham, 281-5439 to RSVP. rwayte@aol.com.

Free

DOGGIE DIAPERS - Full bag of Disposable Doggie Diapers for large dogs (35-55 lbs). Rick, Ext. 3005 or rbuono@bnl.gov.
KITTENS - 6 wks old, really cute and playful, looking for a good home. 585-2969.
PEA COAL - 2/boxes for coal stove. Ext. 2475, 751-4539.
TWIN MATTRESS AND BOXSPRING - u pic up. Sean, Ext. 5331.

Wanted

AIR CONDITIONER REPAIR PERSON - have through-the-wall AC unit running but not very cold. Repair? Replace? 758-2653.
DONATIONS OF DOG/CAT FOOD - for pets of struggling families/elderly, collection bins are in Bldgs: 134, 400, 50 (X5864), 725, 901 and 902. Ext. 3161 or kratto@bnl.gov.
FIREARMS - old or new fair \$\$\$ paid. Joe, Ext. 3783, 487-1479.
LAPTOP SCREEN - 15.4", for Dell Inspiron E1505. Ext. 5080.
NEW/GENTLY USED CLOTHES - all sizes, children's books, toys to be donated to 76 families living in a shelter. Laura X4027, lbuscemi@bnl.gov and Kathleen, Ext. 3161 or kratto@bnl.gov.
PATIENT - for license exam NYU on Aug 8th, patient must be in terrible need of teeth cleaning of stain and calculus deposit, will pay if qualify. Ben, 680-6771.
PING PONG TABLE/PADDLES - any cond. Charlie, Ext. 4736.

Lost & Found

LOST FLASH DRIVE - A see-through/transparent thumb drive w/black strip lost somewhere on the NSLS Experimental Flr. Ext. 5286 or yoon@bnl.gov.

For Rent

KISSIMMEE, FL - T/share, 15 mins to Disney World, see www.calypsocay.com, 1-brm unit-\$500/wk, sleeps 4, 2-brm unit/ sleeps 8. \$1,000/wk. 475-1297.
EASTPORT - 4 bdrm furn Cape Cod house on quiet st in Eastport, 20 min to BNL, +utils, refs, markstaller@bnl.gov. \$1,400/mo. Melinda, Ext. 2280.
GARDEN CITY SOUTH - 1 bdrm, 1 bath, incl w/d, a/c, d/w, l/r, deck, walk to stores and railroad, includes utils. \$1,250/mo neg. 516-495-0231.
MANHATTAN - Upper East Side, newly renov studio apt sep kit, avail Sept 1st. \$1,250/mo. 331-3785.
MASTIC BEACH - spacious 1b/r, full bth,...

BNL Open to Public for Summer Sundays



Mort Rosen CBN-1575-87

Summer Sunday of July 18 Stars The National Synchrotron Light Source

Exciting science shows, tours of world-class science facilities, and entertaining activities for children and adults are all part of the free fun and learning opportunities offered to the public by BNL during Summer Sundays. No reservations are needed, but visitors age 16 and over must bring a photo ID. Visitors may arrive any time between 10 a.m. and 3 p.m.

The last facility visit takes place at 3 p.m. each week, and science shows will be held at noon, 1:30 p.m. and 3 p.m. each Sunday in Berkner Hall. A new hands-on exhibit, "Creating Our Future, Sustainability by Design," will be available every Sunday in the Berkner Hall lobby. The cafeteria and gift shop, both in Berkner Hall, will be open from 10 a.m. to 3 p.m.

The remaining Summer Sundays schedule follows:

July 18 — Bright Light, Dazzling Discoveries

Step inside the National Synchrotron Light Source, where scientists illuminate the inner workings of proteins, polymers, computer chips, and more. Learn about NSLS-II, an intense new light for research, and take the synchrotron-science quiz. Be captivated by the "Science Laser Light Spectacular."

July 25 — Family Fun Day

Bring the family for a fun-filled day of hands-on science!

August 1 — Storm Trackers: National Weather Service

August 8 — Atom-Smasher Extraordinaire: RHIC

For more information, call 631 344-2651, check www.bnl.gov, or search Facebook for Summer Sundays.

...l/r & kit, priv ent/drwy, no smkg/pets, sec & ref req, Lease provided & immed occp, all incl except cable. \$900/mo. 281-4559.
PATCHOGUE - single family house, 2/3 bdrm, 1 bath, fen yd, wood flrs, pets welcome, utils sep. \$1,800/mo. Danielle, 516-312-9029 or daniseuling@yahoo.com.
SHIRLEY - furn 2 bdrm, grd level, close to BNL, incl elect, heat, water, cable, int, no smkg/pets. \$1,100/mo neg. Tomasz, Ext. 7448 or tomw@bnl.gov.

SHIRLEY - 5 bdrm ranch, 1 bath, fen, .5 acre, l/r, eik, den, fam rm, new paint/carpet, move-n-cond, 10 min to Lab, beach, nr LIRR/buses. \$1,800/mo. 843-215-2581.
SHIRLEY - 3 bdrm, 2 bath, 2 story cape, fenced yd, wood flrs, full bsmt, backyd deck, no smkg/pets, avail 8/1/10. \$1,900/mo. John, Ext. 4028, 335-5645.
SHIRLEY - Semi-furn studio apt, refrig& microwave (NO STOVE) use of igp, no smkrs/pets, 8 mi to Lab, near beach. \$800/mo. Daniel, linebackerxx@aol.com.
SHOREHAM - spacious, clean 1 bdrm furn studio apt, sep ent & thermo, full bath, kit, patio, big yd, cable, no smkg/pets, 7 min to Lab, avail 1/8. \$775/mo neg. 747-3495.
SHOREHAM - studio apt, furn/unfurn, clean, newly painted, eik, walk-n-closet, new bathrm, all util/cab incl, no smkg, + sec. \$850/mo. 849-2593.
SHOREHAM - 1 bdrm, shiny garden apt, 1st flr, indep, ent/drwy, full bath, kit, l/r, attic, cac, no smkg/pets, few mi to BNL, 1 mo sec, elec/ cable not incl. \$1,150/mo. 566-8261.
STONY BROOK - 2 bdrm hse, 1bath, eik, office, N of 25A, 3VSD, +/util. \$1,600/mo. 474-1234.

For Sale

BAYPORT - nr. bay, F. Lloyd Wright style flat-roof, house, .83 wooded acr, v priv, 3 bdrm, 2 & half ba, den, lr/dr, kit, util. rm, lge porch, carport. Passv solar, rad. ht in flrs. 617-332-6264.
CENTER MORICHES - Victorian hse, 5 BR, 3.5 ba, Jacuz., lg. kit. w/bkfst. nook; fam rm.w/tp; hwd/ceram. flrs; fin. bsmt; 2-car gar., dsignd gardn; 0.83 ac. \$577,500. 766-7189.
OCALA, FL - 0.23 acre lot, Marion Oaks Sub. Unit 11 Lot 22 Block 1376. Nr shops, golf, restaurants, & new WalMart on Hwy 200. \$50,000 neg. Judy, Ext. 5263, 375-7959.

Yard Sale

SHIRLEY - 12 Pheasant Way, 7/24 & 25, household, kitchenware, electrical furniture, clothes, much more. 399-2925.

In Appreciation

Yvette & Eric Blum thank NNDC and ITD plus all their friends at BNL for their kind condolences due to the passing of Yvette's son, Donald. — Yvette Malavet-Blum
To all our friends at BNL and our OMC family: Thank you for your phone calls, cards, and comforting words after the sudden loss of our son-in-law Brad Nichols. Your generosity to our granddaughter Kayla is greatly appreciated. — Joyce & D. Vail

On-Site Enterprise Rent-a-Car

Enterprise Rent-a-Car has a desk in the Research Support Building, Bldg. 400, lobby. Rent for a half-day, a day, a weekend, or longer. A compact car 11 a.m.-4 p.m. or 4 p.m.-9 a.m. costs \$35; midsize, \$40. One-way rentals to McArthur, JFK, and LaGuardia airports have no extra drop-off charge. Check out other offers. The desk is open 9 a.m.-1 p.m. and 3-5 p.m. Ext. 4888.

CALENDAR (abbreviated)

Wednesday, 7/21

Scharff-Goldhaber Prize Ceremony

3 p.m. Physics Large Seminar Room, Bldg. 510. Johanna Nelson, Stony Brook University, will present a short seminar on her research on the occasion of her being awarded the 2010 Gertrude Scharff-Goldhaber Prize, which is administered by Brookhaven Women In Science. Refreshments will follow the ceremony. All the BNL community are welcome.

Monday, 7/26

IBEW Meeting

6 p.m. Centereach Knights of Columbus Hall, 41 Horseblock Rd., Centereach. A meeting for shift workers will be held at 3 p.m. in the union office. The agenda includes regular business, committee reports, and the president's report.