

2007 NSLS-CFN Joint Users' Meeting Focuses on Synergy, Importance of Securing NSLS-II

Roger Stoutenburgh D5350507



At the NSLS/CFN Users' Meeting this May are: (from left) Doon Gibbs, Associate Lab Director for Basic Energy Sciences; Michael Holland, DOE Brookhaven Site Office Manager; Molly Frame, Stony Brook University and CFN Users' Executive Committee; Sam Aronson, BNL Director; Emilio Mendez, CFN Director; Patricia Dehmer, DOE's Associate Director of Basic Energy Sciences (BES) within the Office of Science; Thomas Brown, DOE's BES; Dan Fischer, National Institute of Standards & Technology and NSLS Users' Executive Committee; Steve Dierker, Associate Lab Director for Light Sources; Chi-Chang Kao, NSLS Chair; and Pedro Montano, DOE's BES.

As BNL aligns key scientific facilities and tools meant to make it a leader in U.S. energy research, government and Lab officials say the time has come to fight for and secure the last piece of the puzzle — the National Synchrotron Light Source II (NSLS-II). Held in conjunction with the official opening of the Center for Functional Nanomaterials (CFN), the second joint meeting of the National Synchrotron Light Source (NSLS) and CFN user communities stressed the importance of NSLS-II to the Lab's research synergy. Users' Meeting Co-Chairs Dan Fischer, National Institute of Standards & Technology (NIST) and NSLS Users' Executive Committee (UEC), and Molly Frame, Stony Brook University and CFN UEC, welcomed participants to the opening session and the next days' sessions of the May 21-23 meeting, respectively.

"Those three facilities — the NSLS, CFN, and NSLS-II — are, in our view, vital to securing the nation's energy security," said Lab Director Sam Aronson during the plenary session on May 21. "The basic challenges in the broad areas of renewable energy, energy efficiency, and storage, among others, are really enormous, and this community here today, by working

together at the facilities that Brookhaven is providing and will provide in the future, are a crucial part of the solution to those energy challenges."

The need for NSLS-II, expected to receive "Critical Decision One" (CD-1) in June, was a common message among the meeting's speakers, which included Pat Dehmer, DOE's Associate Director of Basic Energy Sciences.

In the meantime, Aronson said, the NSLS remains one of the most productive synchro-

(more than three years) without a lost-time injury.

"This is a major accomplishment for the NSLS, which hosts thousands of users and many staff members in a really complex research environment," Aronson said. "It's a tremendous achievement, and it's emblematic of the safety we strive for in all of our facilities."

"Sacrifice, Commitment, Irrational Perseverance" for NSLS-II

After commenting on the budget troubles that arose in early fiscal year 2007, Dehmer gave a positive outlook for next year's budget. In the president's budget request for FY 2008, the BES budget is slated to increase to \$1.5 billion. Dehmer stressed the importance of support from both BNL employees and users for this budget.

Dehmer then delivered a message of the importance of "sacrifice, commitment and irrational perseverance" as the NSLS-II project proceeds. Almost eight years to the day since the CFN and the four other DOE nanocenters were envisioned, Dehmer detailed how many challenges were overcome by following these three actions.

"As you go into a project like this, you look forward to

"Those three facilities — the NSLS, CFN, and NSLS-II — are, in our view, vital to securing the nation's energy security."

— Sam Aronson

tron radiation sources in the world, and should continue on that track with a new five-year plan developed with the help of many staff and users.

"The most important features of this plan will provide for continued high-level exploitation of the facility as it goes forward, and also for a smooth transition for the community between NSLS and NSLS-II," he said. "That's an important piece of our service to our research community."

Aronson also congratulated NSLS users and staff for working more than 1,200 days

2007 RHIC & AGS Annual Users' Meeting

June 18-22

The Relativistic Heavy Ion Collider (RHIC) & Alternating Gradient Synchrotron (AGS) Annual Users' Meeting will take as its theme "From Solid Gold to Perfect Liquid," reflecting the achievements of the RHIC experiments. The meeting will include three days of topical workshops starting on Monday, June 18, followed by two days of plenary sessions on Thursday, June 21, and Friday, June 22. The plenary program will include the latest results from RHIC, AGS, and the NASA Space Radiation Laboratory; reports from Washington; elections; awards; an Open Forum Meeting; thesis awards; poster session with a prize for best student/post-doc poster; and a banquet.

For more information, with a complete list of workshops, go to http://www.bnl.gov/rhic_ags/users_meeting.

the joy of cutting the ribbon," said Dehmer, who later that day helped dedicate the CFN. "But the years of construction can actually be very difficult." Warning the crowd that the planning and construction period for NSLS-II will be difficult at one point or another for almost everyone involved, Dehmer pointed out that the reward — the brightest light source ever built — will be worth it.

NSLS-II Update

Next to speak was Associate Lab Director for Light Sources Steve Dierker, who said although there is still much work to do, NSLS-II is faring well in the development process.

"This has been a fast-paced and exciting year," said Dierker, adding that the project has held five reviews, one workshop, and four advisory committee meetings, as well as hosting more than 75 visitors.

The culmination of this activity was a Conceptual Design Report (CDR), a document that details everything from the scientific mission of the machine to technical design parameters.

"This was truly a team and community effort, and I think this is an extraordinary document that is filled with great promise for the performance that we wish to deliver, as well as sobering in terms of the technical challenges to overcome

in order to deliver that performance," Dierker said. "We believe we have an approach that will be successful in meeting those challenges."

NSLS-II underwent a CD-1 DOE review in December 2006, Dierker said, which praised the design and the team of people involved. As a result of that review, the CDR has changed slightly, and Dierker spent much of his talk presenting details from the current plan. The \$850 million project currently has about 100 staff members — expected to increase to 160 by the beginning of 2008 — and groundbreaking is scheduled for fiscal year 2009, with project completion in 2015.

The facility is expected to have at least 57 beamlines, Dierker said, on the same order as the 65 operational beamlines at the current NSLS. In order to accommodate a significant fraction of users during the early operation of the facility, a plan is being finalized to relocate as many as 20 beamlines from the NSLS. These transferred beamlines are expected to serve about 1,300 users per year. To help finalize details such as NSLS-II design, beamlines, transition, and access modes, Dierker encouraged the audience to attend a user workshop to be held July 17-18 at BNL (see "Then & Now," page 2).

(continued on page 2)

DOE's Brookhaven Site Office Honored With Manager's Unity Achievement Award

Following the success of the DOE Brookhaven Site Office's (BHSO) Second Annual Unity Day, held in May 2006, the US DOE Office of Science Chicago Office has recognized the BHSO with a new award, the Manager's Unity Achievement Award, "for exemplary display of Inclusion, Respect and Community."

The citation on the commemorative plaque (pictured at right) reads: "The Brookhaven Site Office has displayed and fostered an environment of unity by hosting an Annual Diversity Day Celebration. This event has enriched their working relationships and has afforded them a more cohesive organization. All employees benefit from this



DOE Brookhaven Site Office Manager Michael Holland displays the Manager's Unity Achievement award plaque while surrounded by many of the DOE members of the Brookhaven Site Office gathered outside Bldg. 464.

celebration by building trust, as well as impacting relationships throughout the Site Office and BNL community. The Brookhaven Site Office is an example

of unity to be modeled."

Said DOE BHSO Manager Michael Holland, "This award and citation are very pleasing. We are encouraged that the impor-

tance that this office places on mutual respect and appreciation of the contributions of different people has been recognized by the wider DOE community."

As hosts at the May 2006 Unity celebration, organized by BHSO's Nand Narain, the staff presented crafts, arts, and exhibits from many different nations, and a splendid buffet as well as quiz games based on international cultures to welcome participants to a warm and friendly event. Guests included BNL's Diversity Office and representatives of several BERA cultural clubs, including the African American Club; the Asian Pacific American Association; the Gay, Lesbian, or Bisexual Employee Club (GLOBE); and the Hispanic Heritage Club. The thoughtful keynote talk from a GLOBE speaker was appreciated by all attendees. — Liz Seubert

Nanoscience 101

On May 21, the BNL community celebrated the dedication of its new Center for Functional Nanomaterials (CFN). Science and technology based on nanoscience is expected to be revolutionary, and could lead to groundbreaking advances in the design and fabrication of a wide range of products — from automobile tires, to vaccines, to computer chips, to objects not yet even imagined.

Below is the fourth in a series of questions and answers to help familiarize members of the BNL community with nanoscience in general, the types of research planned at the CFN, and health and safety aspects of CFN operations.

Q: Is the Lab implementing any special precautions for nanoscience research? If so, are these precautions required at all Lab facilities hosting nanoscience research?

A: All nanoscience work at BNL undergoes extensive review during the planning phases, involving reviewers who are experts on potential risks and controls. This is called the Experimental Safety Review (ESR) process. The ESR assures that all hazards are identified and that controls are implemented to mitigate those hazards. Also, the five DOE Nanoscale Science Research Centers (NSRCs) closely collaborate to develop best-practice working guidelines and controls to assure that all work with nanomaterials is safe and does not harm the environment. These guidelines are now contained in a BNL Standards Based Management System interim procedure and are incorporated into the ESR process as required. The other NSRCs have also incorporated these guidelines into their procedures.

Best-practice work calls for a variety of controls, which include engineering (physical barriers), administrative (policies and procedures that guide work) and personal protective equipment. The controls are selected based on potential for exposure to the workers and/or release into the environment. The form of the nanomaterials (whether they are free particulates or bound in a matrix such as a solid or liquid) plays an important role in the identification of which controls to institute. For example, free nanoparticles pose the most significant potential for exposure to workers or the environment. Research with these kinds of nanoparticles at BNL is quite limited, and the typical controls involve conducting the work in containment (exhaust ventilation hood or glove box) and donning personal protective equipment. Working with nanomaterials that are bound into a solid matrix may only require the use of personal protective equipment. The type and level of controls are established on a case-by-case basis during the Experimental Safety Review.

Q: What is nanoparticle self-assembly? Isn't it the first step towards self-reproduction?

A: "Self-assembly" refers to a process in which the nanoscale components, usually large molecules or molecular clusters, spontaneously assemble to form a larger aggregate of nanoparticles or nanostructures. In this process, the components typically assemble by bouncing around in a solution or gas phase until a stable structure of minimum energy is reached, consistent with the known laws of statistical mechanics. Scientists can control the conditions that allow nanoparticles to position themselves into organized structures — much like a sophisticated chemical reaction. But self-assembly is not the first step towards self-reproduction, which only occurs in living systems. Self-reproduction is the process by which organisms spontaneously generate new individuals of the same kind and requires energy from a constant and extremely well-controlled source to create order out of disorder.

Q: Will any of the research performed at the CFN be classified?

A: No classified nanoscience research is expected at the CFN or at BNL in general.

Then & Now — NSLS, NSLS-II Users Plan, Give Input Ahead May 21-22, 1979 — BNL Hosts First NSLS Users Workshop

As reported in the May 24, 1979, Brookhaven Bulletin, about 75 prospective users of the National Synchrotron Light Source (NSLS) met at the Lab on May 21-22 to hear reports on various aspects of the NSLS, at that time still under construction, and to form a users' organization. Richard Deslattes

of the National Bureau of Standards was elected chair of the executive committee, and Benno Schoenborn of BNL, secretary. At the close of the first day's session, the participants toured some NSLS laboratories. In this photo, they are visiting the lower level of Bldg. 535, which housed the vacuum as-

sembly area, diagnostics lab and experimental beamline groups.

Since then, annual NSLS Users Meetings, including the May 2007 Meeting held jointly with users from the new Center for Functional Nanomaterials (CFN) (see story, page 1), followed the same pattern: status

report, parallel workshops, and informative tours. Always, funding problems are somehow managed, extraordinary technical and experimental achievements are made. Now, coming up in July (see below), the pattern will re-emerge as history races toward a new excitement, a new future. — Liz Seubert



Doug Humphrey 5-1446-78

July 17-18, 2007 — BNL to Host NSLS-II Users Workshop

To update the user community on the status and plans for NSLS-II, the Lab will welcome participants at a workshop July 17-18. The goals of the workshop are to:

- Describe the conceptual design and current status of NSLS-II
- Describe the process for beamline development at NSLS-II
- Discuss plans for transitioning from NSLS to NSLS-II
- Provide opportunity for feedback and input

For more details on the workshop and registration information, go to www.bnl.gov/nsls2/workshops/UserWorkshop.asp.

2007 NSLS-CFN Joint Users' Meeting Focuses on Synergy, Importance of Securing NSLS-II (cont'd)

He also commented on the importance of the Joint Photon Sciences Institute (JPSI). This facility, which already has a financial commitment from New York State, will foster development of new scientific programs, experimental techniques, and enabling technologies. JPSI operations are slated to start in 2012 with NSLS Chair Chi-Chang Kao leading the development effort.

CFN Officially Opens

On the day of the CFN building's ribbon-cutting ceremony, the facility's Director Emilio Mendez gave an update on its progress. With a mission to "develop and share materials, processes, and tools at the nanoscale for the country's critical needs," Mendez said the CFN's research interests are divided into three themes: electronic nanomaterials, soft and biological nanomaterials, and nanocatalysts and interfaces. Construction on the \$81 million building (which includes equipment such as state-of-the-art scanning transmission electron microscopes) began in September 2005. The facility passed its CD-4a review in April and is now ready for occupancy, Mendez said. It will be ready for full operations in April 2008, and is expected to attract 300 users a year. The CFN currently has about 21 staff members and 11 post-docs, with plans to ramp up that number to 45-50 permanent staff members.

Mendez presented examples of recent CFN work, including studies on nanotubes and the use of what is thought to be the world's smallest pipette to study crystallization of liquid metal nanodrops. The facility has already received 190 user proposals, of which about 139 have been approved, Mendez said.

Immediately following the morning session, the audience joined hundreds of other BNL community members to celebrate the official CFN opening. Mendez joined Dehmer, Aronson, Associate Lab Director for Basic Energy Sciences Doon Gibbs, Brookhaven Science Associates Chair Shirley Strum-Kenny, and U.S. Congressman

Timothy Bishop in dedicating the 94,500-square-foot facility.

NSLS Update

Although the budget was tight again this year, NSLS Chair Chi-Chang Kao explained that the facility was still able to complete scheduled projects without staff reductions or extended shutdowns. The NSLS served more than 2,100 users this year and produced more than 900 publications, a record high.

In order to increase the number of industrial users, which currently make up about 6 percent of the total users, the NSLS has formed a task force to identify their synchrotron-based scientific needs and "enhance the connection between applied sciences and basic sciences," Kao said. "We will likely find new opportunities there."

Kao explained how in their application for beam time, NSLS users were following good integrated safety management practices and emphasized the importance of the final step — feedback and improvement. He asked that users complete this step by filling out end-of-run surveys and promised that the NSLS will find a way to provide timely feedback about the changes made as a result of user input.

He then highlighted successful research resources groups based at the NSLS — the Consortium for Materials Properties Research in Earth Sciences (COMPRES) and the Synchrotron Catalysis Consortium (SCC). COMPRES recently received renewed funding from the National Science Foundation to operate four NSLS beamlines, and in its first year of operation, the SCC has helped more than 40 catalysis groups and attracted 10 more to the NSLS.

"This is a very important model," Kao said. "They become the bridge between us and the research community they represent, and we would like to build on this example in other fields of research."

Kao also discussed the recent reorganization of the department which he believes will help in the transition of beam-

lines, scientific programs, and staff to NSLS-II.

"This is a critical period in NSLS history and your input and support are important," Kao said. "The new management team and I are looking forward to working with you in the coming years."

Talks by NSLS Users

On Tuesday afternoon, users heard talks given by user colleagues at the NSLS. Dean DeLongchamp, a scientist at NIST, spoke on "Microstructure Foundations of High Performance in Organic Superconductors," and Sarah Lawrence College physicist Scott Calvin discussed "Enlarging the Synchrotron Community."

Honors, Events

Each year, the NSLS Users' Executive Committee (UEC) presents one user with the UEC Community Service Award, which honors hard work and dedication toward bettering the experience of users and the user community. Incoming UEC Chair Chris Jacobsen presented this year's award to Richard Heese (NSLS). More details on this year's award are located at www.nsls.bnl.gov/newsroom/news/2007/05-UEC_Award.htm.



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Richard Heese

A new award also was established this year for researchers who have recently conducted a thesis project that included measurements at the NSLS. The Julian Baumert Ph.D. Thesis Award was established in memory of Julian David Baumert, a young BNL physicist who was working on x-ray studies of soft-matter interfaces at the NSLS before he died in June 2006. This year's winner

was Stony Brook University graduate Benjamin Hornberger. More details can be found at www.nsls.bnl.gov/newsroom/news/2007/06-Baumert_Award.htm.



Roger Stoutenburg D6610507

Benjamin Hornberger

At the conclusion of the first day's meeting, participants attended the annual poster session and vendor exhibition. Hors d'oeuvres were served as attendees mingled and talked, and awards were presented to the top student and postdoc posters. The winners were: Jean Jakoncic, BNL; Ariane Kretlow, Robert Koch Institute, Germany; Elena Loginova, Rutgers University; Sanjaya Senanayake, Oak Ridge National Laboratory; Matthew Sfeir, BNL; and Tony Yu, Stony Brook University. Each winner received a BNL certificate and a \$50 American Express gift certificate.

During the Tuesday afternoon session, users were treated to a special viewing of the Whiz Bang Science Show, a BNL Summer Sunday favorite that features interactive science demonstrations. Elvis was in the building that night, making an appearance at the meeting's banquet to serenade guests while they ate, as part of the 1950s-themed party.

In addition, a series of nine half-day workshops were held at locations across the Laboratory, and an additional workshop was hosted on May 24, a day after the official meeting.

— Kendra Snyder
More details on the plenary session, with information about the poster winners and workshops titles are accessible from the NSLS website. To watch the meeting's plenary session, go to WBNL on the BNL website.

Summer Science Explorations Camp

BNL employees are invited to register their children or grandchildren of fourth-to-sixth grade for the 2007 Summer Science Explorations Program provided by the Lab's Science Learning Center (SLC). This free three-day summer camp will be held during two weeks, Tuesday through Thursday, July 10-12 and August 14-16, 8:30-11:30 a.m. Students will have a hands-on field experience in observing habitats on site and spend two days in investigating the planet Mars. These programs center on research done at the Lab. Teaching participants will include SLC science educators, research staff, and college interns. Space is limited, so register your child or grandchild early by contacting the Science Learning Center Office, Bldg. 400, Ext. 4495. Students must attend all three days of camp, and parents of participating children are welcome to attend.



Joseph Rubino D3940803

Join the Brookhaven Advocacy Council

The Brookhaven Advocacy Council (BAC) seeks representatives of the Lab's diverse workforce to become council members. The BAC is a key component of BNL's system of justice. BAC members are good listeners who maintain confidentiality, remain impartial, and are interested in establishing an atmosphere of trust between BNL management and its employees. They listen to employees, guests, or users who have concerns or issues to bring to the BAC's attention, then help with advice and recommendations made to the Lab Director to resolve the problem. To be a candidate, contact Ernie Tucker at tucker@bnl.gov, Ext. 5735, or Amber Aponte at aaponte@bnl.gov, Ext. 3807. Provide your name, extension, e-mail address, department/division, and position.

Hospitality Bus Trip to NYC, 6/17

The Hospitality Committee will sponsor a bus trip to Manhattan on Sunday, June 17, leaving the Recreation Hall at 9 a.m. and leaving the drop-off point, Bryant Park, at 6 p.m. Adults, \$10, children up to 12, \$5. E-mail Jing at deshanghai@yahoo.fr to reserve. Pay at the Recreation Hall on Wed., 6/13, 10-11:30 a.m.

BNL's Bridge Winner Takes Second Internationally



Roger Stoutenburgh D2900307

Benjamin Coburn (center), a home-schooled student from Center Moriches, won first place in BNL's 2007 Model Bridge Contest, and he placed second in the 2007 International Bridge Building Contest held in Chicago, Illinois, on April 28. Coburn won second place in the BNL contest last year, and he also placed first in 2005. More than 150 students from 12 Suffolk County high schools entered their model basswood bridges in the BNL contest with the goal of making the lightest bridge that held the most weight, up to 50 kilograms, or 110.2 pounds. In the BNL contest, Coburn's bridge weighed 12.4 grams and held 84.4 pounds, or 3,084.8 times its own weight. He improved on those figures in the international contest by building a bridge that weighed 13.3 grams and held 50 kilograms, or 3,757 times its own weight. Fifty-seven students, all first- or second-place winners in their regional contests, entered the international contest. BNL paid for the top two winning students' trips to the international contest, and, as second-place winner, Coburn won a video iPod®, as well as a trophy, in that contest. James Dowd (second from right), from Islip High School, won second place in the BNL contest with a bridge that weighed 17.6 grams and held 131.7 pounds, or 2,840.9 times its own weight. He also won fifth place in the international contest, with a bridge that weighed 14.24 grams and held 43 kilograms, or 3,020 times its own weight. Third-place honors in the BNL contest went to Christopher Durcan (third from left), from Patchogue-Medford High School, whose 17.7-gram bridge held 121.7 pounds, or 2,824.8 times its own weight. Jeffrey Petracca, (third from right) Walt Whitman High School, won the aesthetic prize for creating the most attractive bridge. Joining the winners (from left) are John Carter, Director of Community Affairs, DOE Brookhaven Site Office; Andrew McNerney, Assistant Lab Director, Facilities & Operations; and (far right) Melvyn Morris, Educational Programs Coordinator, who organized the contest. — Diane Greenberg Note: This article appeared in last week's issue, but, regrettably, the photo was wrongly linked to another photo. This is the correct one.

Employee Lunchtime Tour, 6/15

"Water, Water, everywhere, but not a drop to drink" might be the mantra of a shipwreck survivor on an atoll, but at BNL on Long Island, the Plant Engineering Division's Bill Chaloupka and his team see to it that BNL employees always have the finest quality water to drink. Chaloupka will show and explain the Lab's Water Treatment Facility at the next employee noontime tour on Friday, June 15. Meet the group at noon in the upper lobby of Berkner Hall to travel by van to the plant and return by 1 p.m. No reservations are needed. Call Ext. 2400 for more information.



Roger Stoutenburgh CN10-44-00

Benefit Notes: Qualifying Events

Changes to medical and/or dental coverage may be made during the benefits annual open enrollment. Also, certain changes may be made within either 30 or 60 days of when a qualifying event occurs, depending on the event. Qualifying events include: birth or adoption of a child, marriage, divorce or legal separation, loss of dependent status (for instance, graduation, attainment of age limit, or being no longer a full-time student), death of a dependent, change in the place of residence or worksite, or a spouse's gain or loss of employment. The Benefits Office will need documentation of the event. If the event results in a loss of coverage, and documentation is submitted within the allotted timeframe, coverage may be continued under COBRA. For the change in benefits to be approved, the qualifying event must closely relate to the requested change in benefits. For example, if a child is born, a participant may add the child to his/her medical coverage. The participant cannot drop medical coverage at that time. In addition, you may want to update other items when you have a qualifying event, such as: covered dependents for medical and/or dental coverage, life insurance beneficiaries, retirement plan beneficiaries, tax withholdings on Form W-4, address change, and emergency contact(s). Employees covering dependent children over the age of 19 as full-time students should be aware that full-time students are only covered over the summer if the student attends classes on a full-time basis for both the spring and fall semesters. Otherwise coverage ends on the last day the child attended an accredited college or university on a full-time basis. If there is a possibility that the child may not be in full-time attendance in the fall, please contact the Benefits Office immediately to discuss continuation of benefits through COBRA. For more information or to make a change to your benefits due to a qualifying event, contact the Benefits Office, Bldg. 400B, Ext. 2877, Ext. 5126 or call (800) 353-5321.

Remember — Give to the Food Drive

Bins where food cans may be left are in many buildings on site. Your gift is truly needed and appreciated.

Defensive Driving Course in Two Parts, 6/21 & 28

During the summer months, the six-hour Defensive Driving (Point & Insurance Reduction) course will be held in two parts on consecutive Thursday nights: June 21 and 28. in the Brookhaven Center South Room, 6 p.m.-9:15 p.m. The course is open to BNL, BSA, and DOE employees, facility-users, and their families. The cost is \$30 per person. Preregistration is required. To register, call Ed Sierra, 821-1013, and leave a message. Include your phone number. For more information, call Sarah Wiley, Ext. 4207.

One-on-One Retirement Counseling

A TIAA-CREF consultant will visit BNL on Tuesday, June 19, and Thursday, June 21, to answer employees' questions about their financial matters. If you get an appointment, the consultant will help you to understand the importance of protecting your assets against inflation; find the right allocation mix for you; learn about TIAA-CREF retirement income flexibility; and compare lifetime income vs. cash withdrawal options. For an appointment, call Suzanne Leone, (866) 842-2053, Ext. 4601.

Arrivals & Departures

— Arrivals —

Kevin Corbett..... TQ/HR/OMC
Michael Daddi..... Plant Eng.
Brian Foley..... ES/WM
Jacob Hooker Medical
Wonho Lee..... Medical
Ivan Kotov Inst.
David Maffei..... CAD
Lijuan Ruan Physics
Jing Tao..... CFN

— Departures —

Nancy Harris PPM
Pavlos Kollias Env. Sci.
Theresa Michna NNS
Thomas Morton HR/OMC
Joseph Triolo Plant Eng.
James Tarpinian... Dep. Dir. for Ops
Linlin Zhao Chemistry

CALENDAR

— THIS WEEKEND —

Saturday, 6/9

Captain Bob's Fishing Trip
7:45 a.m. Mattituck dock. Boat returns 3 p.m. Buy ticket, \$50pp, at BERA Store, open until 3 p.m. today. Directions at store or: www.bnl.gov/bera/recreation/events.asp. For more information, contact 298-5522, www.captbobfishingfleet.com/boats1.cfm.

— WEEK OF 6/11 —

Wed. & Thur. 6/13 & 14

Book Fair
11 a.m.-2 p.m. Berkner Hall lobby. A wide range of books, including children's books, will be available at discount prices.

Thursday, 6/14

COSTCO Membership Drive
10 a.m.-2 p.m. Berkner Hall lobby. A COSTCO rep will describe members' advantages, \$54.31/year. Giveaways!

Friday, 6/15

***Tour BNL Water Treatment Facility**
Noon. Berkner Hall, upper lobby. Meet group for transportation to tour area. See notice at left.

***JOHNNYVOLUME — Blues, More**
7:30 p.m. Brookhaven Center. Sponsored by the BNL Music Club. JOHNNYVOLUME plays Chicago and British blues, Motown soul, rock 'n' roll. BNL's Joe Carbonaro, Mike Herbert & friends — The MI-5 — will open the show playing Motown, blues, funk. Not to be missed! Buy tickets at the BERA Store, \$10 each or at the store. See page 4 also.

Sunday, 6/17

Hospitality Bus to NYC
9 a.m. Depart. See notice, left.

— WEEK OF 6/18 —

Mon.-Fri., 6/18-22

RHIC, AGS Annual Users' Meeting
Three days of workshops are followed by two days of plenary sessions. For more information, see page 1 and www.bnl.gov/rhic_ags/users_meeting

Tues. & Wed., 6/19 & 20

***Blood Drive**
9:30 a.m.-3 p.m. Brookhaven Center. To schedule a time to give blood, go to www.bnl.gov/HR/BloodDrive/default.asp or call Ext. 2315 or 2888. For important info, see notice, page 4.

Wednesday, 6/20

Estate Tax Reform Talk
Noon. Berkner Hall, Room B. BNL's Health Promotion Program presents an Elder Law talk on Estate Tax, by Nancy Burner of Burner, Cherches & Smith. Learn how to plan now or risk paying significant estate taxes.

Thursday, 6/21

***Defensive Driving Course, Part I**
6-9:15 p.m. Brookhaven Center. See notice at left.

LIANS Dinner Meeting, 6/14

The next meeting of the Long Island Chapter of the American Nuclear Society (LIANS) will be held on Thursday, June 14, when Brian Boyer of Los Alamos National Laboratory will talk on "Enrichment Plant Safeguards: Current Safeguards and Improvements with Unattended and Remote Monitoring, Mailbox System, and Randomized Inspection Approaches." The meeting will be held at the South Shore Restaurant, Rte. 112, Patchogue. Complimentary appetizers/cash bar will start at 6 p.m., dinner at 7 p.m., and Boyers' talk at 8 p.m. The cost is \$25/person. Reserve by Monday, June 11, leaving a message with Arnie Aronson, Ext. 2606.

Classified Advertisements

Placement Notices

The Lab's placement policy is to select the best-qualified candidate for an available position. Candidates are considered in the following order: (1) present benefits-eligible employees within the department/division and/or appropriate bargaining unit, with preference for those within the immediate work group; (2) present benefits-eligible employees within the Laboratory; and (3) outside applicants. In keeping with the Affirmative Action Plan, selections are made without regard to age, race, color, religion, national origin, sex, disability or veteran status. Each week, the Human Resources Division lists new placement notices, first, so employees may request consideration for themselves, and, second, for open recruitment. Because of the priority policy stated above, each listing does not necessarily represent an opportunity for all people. Except when operational needs require otherwise, positions will be open for one week after publication. For more information, contact the Employment Manager, Ext. 2882. Access current job openings on the World Wide Web at www.bnl.gov/HR/jobs/.

OPEN RECRUITMENT – Opportunities for Lab employees and outside candidates.

ASSISTANT SCIENTIST (S-1) - Requires Ph.D. or equivalent in physics, chemistry, materials science or a closely related field, as well as postdoctoral experience. Expertise in terahertz spectroscopy of superconducting materials and in picosecond time-resolved electron diffraction of superconducting materials is also required. Successful candidate to start a new program in ultrafast spectroscopy and terahertz spectroscopy of superconducting and correlated electron materials. Candidate must have the capability to start a new program utilizing ultrafast electron pulses as a picosecond time-resolved materials probe of complex materials. Under the direction of J. Misewich, Condensed Matter Physics and Materials Science Department. Send CV to misewich@bnl.gov, referring to Position No. KH 4592.

POSTDOCTORAL RESEARCH ASSOCIATE – Requires a Ph.D. in chemistry, materials science or physics. Extensive experience in techniques for surface characterization is desired. Knowledge in the use of synchrotron facilities is also desired. Work will involve the characterization of model catalysts using techniques of surface science (electron spectroscopy, infrared spectroscopy and scanning tunneling microscopy). Under the direction of J. Rodriguez, Chemistry Department. Refer to Position No. FH 4578.

POSTDOCTORAL RESEARCH ASSOCIATE – Requires a Ph.D. in chemistry, physics, materials science or chemical engineering. Experience in UHV STM, surface science, photoelectron or IR spectroscopy of surfaces is desired. Knowledge of surface chemistry/kinetics is also highly desirable. The successful candidate will perform experimental studies of supported nanoparticles catalysts using STM, photoelectron, thermal desorption and infrared spectroscopy. Experimental work will include preparation, characterization or model catalysts and evaluation of their reactivity. Responsibilities will include collaborations with the interface science/catalysis group at the CFN and occasional support of outside users. Under direction of J. Hrbek, Chemistry Department. Send CV to felicia@bnl.gov, refer to Position No. FH 4580.

SR. TECHNOLOGY ENGINEER (I-8) - Requires a bachelor's degree in computer science, or related discipline, master's degree preferred, and a minimum of 8+ years experience administrating data handling services in a grid computing environment. Experience with grid based data transport systems, large and complex distributed storage systems, tools and network optimization in support of large volume, long-haul data transfers is required. Responsibilities will include functioning as a team leader as well as supervising a group of people responsible for working on storage and data management, as well as contributing as a member of the RACF management team for the development and high level operation of the facilities. Technical responsibilities include the preparation and execution of a deployment plan related to storage and data management services aligned with the ATLAS goals and milestones, identifying areas that need further development or optimization, making recommendations to application developers, users and management, and identifying and scheduling the effort to implement the required modifications. Travel required. Physics Department. morales@bnl.gov referring to Position No. RM 4320.

TECHNOLOGY ARCHITECT/SENIOR INFRASTRUCTURE SUPPORT TECHNICIAN (I-9) – Requires a bachelor's degree in computer science or related discipline or equivalent, and 10+ years' experience supporting enterprise Windows applications in a campus-wide heterogeneous environment. Programming skills, enterprise monitoring integration and Windows networking support a must. Microsoft certification in administration, engineering and programming or equivalent required. Must have experience in Enterprise level Infrastructure Management, supporting and diagnosing server networking issues and extensive experience

with Active Directory & Windows 2003 in a campus LAN environment. Experience working with group policy objects, IIS, ISA, DFS required. Exchange, SMS, System Center, NetIQ a plus. Must have extensive experience integrating enterprise level monitoring with Exchange, PeopleSoft, Active Directory, WEB applications, hardware support, event correlation and network communications. Strong cyber security experience related to a Windows Server environment and extensive scripting experience in VB and/or Java required. Must be able to develop custom scripting and programs to support Enterprise integration of MOM, WSH, WMI, ADSI, HTA or PowerShell a plus. Additionally, SQL 2000/2005 management and reporting experience is a plus. Responsibilities within the Active Directory Environment include performance tuning, recoverability and problem resolution for all distributed roles of Active Directory services and functionality. Additional responsibilities include support and troubleshoot deployment of Group Policy Settings to Servers within our organization. Develop documentation & self help to assist users through enterprise deployments and upgrades. Develop necessary programs and systems to facilitate centralized directory services including interfacing directly with Active Directory, Open LDAP and PeopleSoft databases. Additional coding efforts will include custom applications in support of general enterprise management. Other duties will include responsibilities as a Server/Infrastructure/Application Administrator in a Data Center managing 200 Windows Servers. Information Technology Division. morales@bnl.gov, referring to Position No. RM 4704.

SR. APPLICATIONS ENGINEER (I-8) - Requires a bachelor's degree, or equivalent experience in computer science or a related field, and 8+ years experience in the design, coding, testing, and troubleshooting of information systems. Requires a strong background in the development and deployment of secure applications using ASP, ADSI, VB, PERL, PHP, and JavaScript. Experience with SQL, Oracle and SQL Server Databases, PL/SQL or Transact-SQL stored procedures, and data-mining is also required. A detailed understanding of relational and object-oriented data modeling concepts and techniques is mandatory. Must be proficient in both Unix/Linux and Windows environments, and possess a strong understanding of basic networking principles. Also highly desirable are knowledge of shell scripting, XML, web services using SOAP and/or XML-RPC, and architecture, design and development experience with the .NET platform. Candidates must display excellent written and oral communication skills, and should have experience working with customers to gather requirements. Responsibilities will include the design, development, and maintenance of applications, reports, user interfaces, and database schemas; data mining; data processing; and the production and maintenance of technical and end-user documentation. Some additional system administration tasks will also be required. Information Technology Division. morales@bnl.gov referring to Position No. RM 3457.

SR. TECHNOLOGY ENGINEER (I-8) - Requires a bachelor's degree or equivalent experience preferably in Computer Science or related discipline and 8 - 10 years of telecommunications operations experience. Responsibilities include but are not limited to: supporting MOVE, ADD & CHANGE (MAC) administration for Customer Service Requests involving the CBX, VMX, IVR & ISI Billing platforms & cable plant infrastructure; analyzing Service Tickets & interpreting user needs to determine hardware, software & cable requirements; supervision and scheduling work activities for contracted cable installers in support of BNL core telecom systems and cable plant infrastructure; maintaining database accuracy across multiple technology platforms; Performs as project team member for BNL initiatives involving new facility construction/demolition & relocation projects affecting Core Telecom Services monitoring & replenishing telecommunications equipment inventory as required for operational activities; scheduling and supervising telecommunications system maintenance activities relating to hardware & physical plant with contracted vendors & BNL staff. Information Technology Division. morales@bnl.gov, referring to Position No. RM 4703.

SR. TECHNOLOGY ENGINEER (I-8) - Requires a bachelor's degree in computer science, engineering, or a related discipline, and/or at least 8+ years of relevant experience. This position requires expert experience configuring, administering, patching, securing and performance tuning a variety of UNIX-like platforms including but not limited to Linux (RedHat, Debian and derivatives), Solaris, AIX and clustered computing (including schedulers, resource managers and distributed file systems). Must have working knowledge of shell/PERL scripting for process automation. Must possess ability to independently generate creative solutions to atypical problems using open source technologies in a fast-paced and dynamic environment. Skills in computing infrastructure systems such as DNS, LDAP, SMTP, application proxies, and other standard daemons are necessary. Scripting skills in Python, PHP or other languages a plus. Responsibilities include but are not limited to routine system administration, maintaining and expanding Linux clusters, and engineering level system troubleshooting and debugging. Experience with Mac OSX a plus. GCUX/LPI/RHCE certification a plus. This position requires rotating off-hours support. Information

Technology Division. morales@bnl.gov, referring to Position No. RM 3449.

SR. TECHNOLOGY ANALYST (I-6) – Requires a bachelor's degree (preferably in computer science or related area) or equivalent work experience, excellent communication skills and 3 years of Unix administration and customer support experience. Must have strong working knowledge of Linux (preferably Red-Hat or Debian) and workstation hardware and software. Must be able to troubleshoot Linux workstation issues with little supervision. Solaris, Mac OS X and other UNIX-like experience is a plus. In addition, knowledge of RedHat Linux distributions, kernel and use of the RedHat Package manager (RPM), Debian Linux distributions and use of the Debian Package Manager (APT), ability to patch systems, knowledge of security (iptables, TCP wrappers), authentication and the following services: NFS, DNS, DHCP, NIS, NTP, Samba, LDAP, Printing, FTP, and Apache are desirable. Ability to write shell scripts is required and ability to write in PERL or PHP is helpful. Responsibilities include participating in customer support and routine system administration for ITD Unix Services Group. This position requires rotating off-hours support. Information Technology Division. morales@bnl.gov referring to Position No. RM 3448.

APPLICATIONS ANALYST (I-4) – Requires a bachelor's degree in information technology or related discipline or equivalent work experience, good organization and communication skills and 1 year of experience in an information technology field. Must have strong working knowledge of Microsoft Windows 2000/XP workstation, PC hardware and software. Must be able to troubleshoot Windows 2000/XP workstation and software issues with little or no supervision. Responsibilities include the analysis, design, development, testing, installation, and maintenance of enterprise level applications. Windows Vista experience a plus. This position requires some weekend support. Information Technology Division. morales@bnl.gov, referring to Position No. RM 3455.

APPLICATIONS ANALYST (I-4) – Requires a bachelor's degree in information technology or a related discipline or equivalent work experience, good communication skills and 1 year of experience in an information technology field. Must have strong working knowledge of Microsoft Windows 2000/XP workstation, Apple Mac OS X, PC and Apple hardware and software. Must be able to troubleshoot Windows 2000/XP workstation and Apple Mac OS X software issues with little or no supervision. Responsibilities include the analysis, design, development, testing, installation, and maintenance of enterprise level applications. Windows Vista experiences a plus. This position requires some weekend support. Information Technology Division. morales@bnl.gov, refer to Position No. RM 3456.

REGISTERED NURSE (A-4) – PER DIEM/ON-CALL BASIS – Requires licensure as New York State Registered Nurse with a minimum of 3+ years recent clinic experience that should include hands-on care providing first aid, drug and alcohol testing, travel medicine, health education, immunizations, assistance with physical examinations and medical case management for Workers' Compensation. Prior experience in occupational medicine strongly preferred. Additional hours and/or future full-time opportunity possible. Human Resources & Occupational Medicine Division sobrito@bnl.gov refer to Position No. NS 4420.

ELECTRICIAN A POSITIONS (Term) - Under minimum supervision lays out, constructs, installs, maintains, repairs and operates (in accordance with the national electrical codes, or as otherwise directed) electrical systems, equipment, controls and related devices. May be required to perform similar duties on other than Maintenance Division equipment and facilities. Plant Engineering Division. tuck@bnl.gov, refer to Position No. TB 4442.

CUSTODIAN (Two positions, term) - Under general supervision, performs general cleaning and housekeeping duties in all Laboratory buildings. Plant Engineering Division. tuck@bnl.gov, referring to Position No. TB 4441.

Motor Vehicles & Supplies

04 VOLVO C70 CONVERTIBLE - a/t, a/c, 2.3L turbo, silver & gray w/lthr. int. \$25,500/neg. George, 924-6105.

04 CHEVY SILVERADO 1500 - ls, 5.3L, 4x4, 8cyl., DRL, c/c, p/b, p/s, p/w, a/c, tw pkg., k/les ent, 40K mi. \$21,000/neg. Ext. 7132.

03 DODGE GRAND CARAVAN SPORT - new tires & brakes, all the amenities. 62K mi. \$9,500/neg. Timothy, Ext. 3091.

02 TOYOTA CELICA - GT, carbon blue, 2dr., 5spd. . 83K mi. \$9,000. Ext. 4924.

01 MERCURY SABLE - 3L, V6, all opts, full ser., 110K mi. \$4,300/neg. 516-449-821.

00 FORD EXPEDITION XLT - 5.4 L, AWD/4WD, 3rd seat, lthr., 6cd, trlr pkg., rem start, k/les ent. 133K mi. \$8,000/neg. Ext. 7277.

96 AUDI A4 QUATTRO - 2.8 ltr. V6, 5spd stkl., blu ext, gry lthr. int, runs well . 132K mi. \$4,200. Ext. 2576 or 631 750-3244.

95 BMW 325i - 6 cyl., a/t, 4 dr., loaded, gar., excel. cond., must sell. 172K mi. \$4,400/neg. 886-1316.

91 JEEP CHEROKEE LAREDO - 6 cyl, low mi, 40K, excel. cond. \$3,500. 848-3693.

TRAILER HITCH - Univ. bumper mntd taller hitch bar w/1-7/8" ball, \$25 obo. Ext. 4925.

JOHNNYVOLUME Band at BNL, 6/15

JOHNNYVOLUME, a band that plays a mix of Chicago and British blues, rhythm and blues, Motown soul and rock 'n' roll, will appear in concert on Friday, June 15, at 7:30 p.m. in the Brookhaven Center. Sponsored by the BNL Music Club, the concert is open to the public. All visitors to the Lab age 16 and over must bring a photo ID.

Tickets cost \$10 each and can be bought at the BERA Store in Berkner Hall, at www.ticketweb.com.



com, or at the door on the evening of the show. Call Ext. 5257 for more information.

Give Blood, Give Life



Joseph Rubino D0510804

Roll Up Your Sleeve: Blood Drive, 6/19 & 20

BNL is holding a blood drive on Tuesday and Wednesday, June 19 and 20, from 9:30 a.m. to 3 p.m. in the Brookhaven Center. Donors must be from 16 to 75 years of age, in good health, and weighing over 110 lbs. Restrictions may apply to individuals from the United Kingdom and Europe. Donors should have photo identification and know their social security number. To make an appointment, log on to the Human Resources webpage, click on "Blood Drive" and select "Schedule an Appointment," or contact Susan Foster, Ext. 2888 or Liz Gilbert, Ext. 2315.

Boats & Marine Supplies

17' STARCRAFT FIBERGLASS - 1970 boat heavy, stable and fast, 88 horse Evinrude, \$1,395/neg. 375-8519.

19' GRADY WHITE TOURNAMENT - 130 hp Yamaha, magic tilt trailer, full encl., VHF & Depth Finder, more, \$8,000/neg. 878-8302.

21' BAYLINER CIERA SUNBRIGE - galley, head, Bimini top, volvo-penta outdrive, \$3K w/o trailer. \$4,000/neg. 816-8587.

23' SUNRUNNER 230SB - 1984 mid cabin full galley sep. hd aft cabin, slps 4 225hp volvo/penta i/o \$7,000/neg. 654-3989.

26' CRUISER HOLIDAY - 1988, sleeps 6, h/c shower refrig/freezer, mint. low hrs. \$10,000. 543-7065.

Furnishings & Appliances

AIR CONDITIONER - 17,000 Btu, used 3 seasons, v. gd. cond., ask \$50. 581-7656.

BEDROOM SUITE - Mahog., old, full bed, \$100; nightstd + dresser w/mirr, \$150; \$200 all, pix avail. Ext. 5744 or 929-4440.

CURIO CABINET - bleached oak, 7'h 3'w compt. design, like new cond. ask. \$175. Robert, 654-3989/278-2192.

DINING SET, WASH. MACH - wood set w/6 chrs, tbl w/leaf, glassed breakfrt, \$100; top/d GE washr, wks. well, \$50. neg. 255-8445.

DINING ROOM SET - white formica w/six chrome chairs, excel. cond., \$300. Richard, Ext. 5319 or 835-8309.

LIBRARY TABLE - antique oak, 48" x 26", 2 drawers, excel. cond., \$300. 878-0898.

OAK DRESSER - 2 over 4 solid oak, 36w x 48h x 18d, antique brass fittings, excel. cond. \$150/obo. Tricia, 878-9020.

PASTA SET - 5 pcs, 1 lg, 4 indiv., dk blue w/ white, brand new from Crate & Barrel, Italian, pic avail. \$30. Ext. 7235 or 399-7997.

RECLINER & COUCH - blue plaid couch, 78" long, gd. cond., \$75; dark brown lthr. recliner, \$75, excel. cond. 929-4270.

SEWING MACHINE - Kenmore Model 86 w/ cabinet, circa 1950, works well tho' bobbin winder is broken. \$50/neg. Ext. 4538.

Tools, House & Garden

ANDERSON WINDOW - white vinyl, dble hung, new in box w/screen, rough opening 57"h x 34"w, cost \$250, sell \$125. 727 2346.

BLOWER - Ryobi mulching blower vacuum, old but wks well, \$15. John, Ext. 4028.

GENERATOR - 3500 Watts, brushless alternator, contractor style w/manual, runs well, \$300.00/firm. Ext. 5551 or 772-4751.

LANDSCAPE SPIKES - approx. 100 pcs., 10"L x 3/8 dia. galvznd, \$50 firm. Ext. 5741.

SCREEN DOOR - 6' Anderson sliding patio dr., almost new, \$75. 929-6527.

Miscellaneous

CROSS STITCH/CRAFT MAGAZINES - back issues (68) of cross stitch, needlework, jewelry, bead, & craft magazines, make offer! Ext. 4538.

DOCKSPACE - Center Moriches, boats to 25' water & elec., priv. 775-0724.

INFANT'S ITEMS - Graco car seat \$25, rcker \$15, swing \$50, strlir \$10, Bebe Angel Care \$40, Sony Bbycall \$20. 929-0043.

REMINGTON TWISTER ROLLERS - 20 bendable hot rollers, unused, create spiral curls, waves, ringlets, 395-6784.

SLOT MACHINE - Triple Triple Diamond, actual Las Vegas casino quarter jackpot, IGT, accepts bills, \$850. Rick, Ext. 3005.

VERA BRADLEY PURSE - Lt blue & white, w/matching hard eyeglass case, like new \$25. Sue, Ext. 7235 or 399-7997.

Free

PINE FIREWOOD - cut & seasoned, not split, sev cords avail., deliv poss if u help load, Ridge. Paul, Ext. 4941 or 345-9592. TV RCA 27 - onscreen TV guide, grt pict, needs \$80 fix to restore sound. Ext. 7957 or 286-8869.

WHITE FORMICA KITCHEN TABLE - w/ leaf, excel. cond., remove legs to get from basement, u pick up. Ext. 4538.

Wanted

AIR CONDITIONER - Portable or window. Feng, Ext. 8490.

BOOKS - to give to needy kids 5 to 10, at a summer school in Trinidad. Ext. 2346.

ENGLISH EDITOR - for writing, dejun@optonline.net. Dejun, 281-3414.

PARTY HOSTESS - for small dinner party on 6/9 in Port Jeff. 4:45pm-7:45pm to set up, clean, serve, etc. Ext. 4532.

PATIO DINING SET - wrought iron 6 chair patio dining set, in gd. cond. Mamta, Ext. 3639 or 355-5631.

PORTABLE WASHER. - can handle sm. laundry load, similar to Haier HLP 20E or HLP 21E. Williamson, Ext. 4992.

REFRIGERATOR - approx. 30"x30"x64". Daniel, Ext. 4798 or 878-1255.

TIME SHARE OR CONDO - family of 4 want to rent in Orlando area, July 25 to Aug. 1, ref. James, Ext. 4026 or 872-8966.

WHISPERING PINES CONDOMINIUM - Yaphank, 2 br., fp, bsmt., gar, middle/end unit ok, etc. Sue, Ext. 4931.

Ads were omitted from this week's Bulletin – no space. For a complete list of ads, contact Liz Seubert, lseubert@bnl.gov or Ext. 2346 if you do not have e-mail.