BROOKHAVEN BULLETIN
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BROOKHAVEN NATIONAL LABORATORY

RHIC Computing Facility Ramps Up

Tom Throwe, Physics Department, who leads the RHIC Computing Facility's Intel/Linux "farm" project, stands in front of an array of 148 dual processor computers.

Roger Stoutenburgh

As the time approaches for the Relativistic Heavy Ion Collider (RHIC) experiments to start "Day One" physics, the RHIC Computing Facility (RCF) is also ramping up toward its production levels.

Led by Bruce Gibbard, Physics Department, since it became a funded project in February 1997, the RCF is designed to archive, reconstruct, and analyze the immense amount of data to be produced by the RHIC complex.

At RHIC, where two accelerated beams of gold ions will cross and collide, tens of thousands of particles will emerge to be measured or tracked by four experiments, BRAHMS, PHENIX, PHOBOS, and STAR. The data from these collisions will stream at approximately 60 Megabytes per second over a dedicated fiber optic link from the RHIC ring to the Information Technology Division (ITD) data center, which houses the RCF. There, the raw data will be recorded on tape and stored in a High Performance Storage System (HPSS). An estimated one Petabyte (one billion Megabytes) of data is expected to be stored each year.

Once the data have been stored and the experiments have produced the necessary calibration constants, the raw times and voltages of the data will go through a reconstruction phase by being converted into physical properties, such as mass, energy, momentum, and position. This will be done on the Central Reconstruction Server (CRS) — a "farm" or bank of Intel-based computers running the Linux operating system. The goal for CRS is approximately 300 dual CPU computers, comprising 12,000 SPECint95 units of computing power — in contrast, a normal desktop computer has 15-20 SPECint95 units. The reconstructed data will then be returned to the HPSS to wait for final analysis.

The third RCF component is another computer farm called the Central Analysis Server (CAS), which will be used to do most of the experiments' final data analysis. The CAS currently has 62 dual CPU Intel computers (about 2,300 SPECint95 units). Target capacity is about 150 dual CPU computers.

Additional information about RHIC, the RHIC experiments and the RCF can be found on the Web, starting at http://www.rhic.bnl.gov/.

ITD 'Farms' Computers For Non-RHIC Usage

The Information Technology Division (ITD) houses the RHIC Computing Facility (RCF) dedicated to users associated with RHIC science (see story, left).

In addition, ITD has another computer "farm" or bank of computers, which, combined with the Center for Data Intensive Computing (CDIC) at the same location, provides comparable computing power for general purpose computing at BNL. Thus, using similar hardware to the RCF but on a smaller scale, 1,400 SPECint 95 is available to all Lab scientists through ITD and CDIC.

"For an individual, the computing power available through the combined ITD and CDIC farms compares well to what is available for RHIC users at the RCF," said Ed McFadden, ITD.

To learn more about ITD and CDIC computing, which is housed in ITD's data center in Building 515, see http://www.ccd.bnl.gov/ and http://www.cdic.bnl.gov/.

DAT's Cokinos, Kempf Win ANS Awards For Nuclear Safety and Nonproliferation

Dimitrios Cokinos and C. Ruth Kempf, both of BNL's Department of Advanced Technology (DAT), were honored by the American Nuclear Society (ANS) for their contributions to nuclear safety and nonproliferation at a luncheon in Long Beach, California, on Tuesday, November 16.

Cokinos, a nuclear engineer, was selected unanimously to receive the 1999 Standards Service Award for his years of leadership and dedication to setting standards for the safe and efficient design and operation of nuclear reactors. Kempf, an internationally recognized nuclear safeguards and arms-control expert, received the 1999 ANS Women's Achievement Award.

Cokinos has been involved in ANS standards work for two decades. As chairman of the Reactor Physics Division Standards Committee, he oversees the development and revision of standards for guiding nuclear design and for monitoring the operation of commercial-power and research reactors.

Cokinos has served as a consultant for the U.S. Nuclear Regulatory Commission and DOE, and he has worked extensively on the safety of light water reactors. In 1986, he and other DOE scientists helped analyze the Chernobyl nuclear accident in the Soviet Union. For the past four years, he has also aided U.S.-Russian efforts to control and account for nuclear materials to prevent the spread of nuclear weapons.

"This award was made possible because of the cooperation of a very diligent group of people on my committee," Cokinos said. "We're dedicated to making the operation of nuclear reactors safe and trouble-free."

Cokinos holds bachelor's degrees in music and physics from the National Conservatory of Music in Athens and Athens University, respectively, a master's in physics from North Carolina State University and a Ph.D. in nuclear science and engineering from Columbia University. Before coming to BNL in 1977, he oversaw the design and operation of boiling water reactors for General Electric, Asia. He now serves as a guest scientist in BNL's Department of Advanced Technology.

Ruth Kempf is Deputy Chair of the Department of Advanced Technology. Her technical work focuses on nonproliferation, including the U.S.-Russian program to safeguard nuclear weapons-usable materials. She also chairs the Institute for Nuclear Materials Management's Nonproliferation and Arms Control Technical Division.

From 1990 to 1992, Kempf was a technical advisor to the U.S. Ambas-

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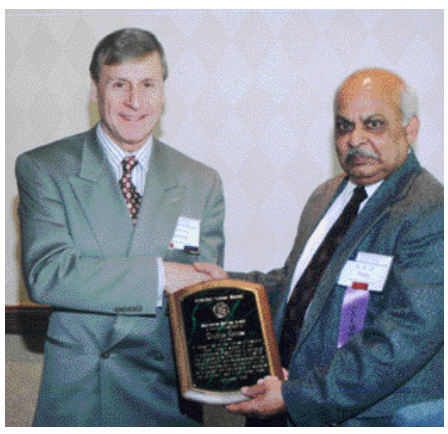


DAT's Dimitrios Cokinos (left) and K.K.S. Pillay, ANS Honors & Awards Committee Chairman.

C. Ruth Kempf, DAT Deputy Chair, was unable to attend the ANS award ceremony.

Roger Stoutenburgh

BNL Science Display at Linux World Conference

On February 2 to 4, the BNL Linux User Group will represent the Lab at a booth in the .ORG Pavilion at the Linux World Conference, Jacob K. Javits Center, 655 West 34 Street, New York City. There, Lab scientists and technical staff will display research computed using Linux.

Among those present at the Fourth Annual Pine Barrens Research Forum held last October 14-15, were: (from left) Ray Cowen, Regional Director of New York State Department of Environmental Conservation, Forum Moderator Henry Bokuniewicz, Director of the Long Island Groundwater Research Institute, Robert Gaffney, County Executive; Michael LoGrande, CEO, Suffolk County Water Authority; Jan Naidu, BNL; Ray Corwin, Executive Director of the Pine Barrens Commission; Michael Damm, Aide to Congressman Forbes; and John Carter, DOE Brookhaven Group.

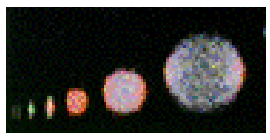
In ecological studies on the BNL site, especially in the pine barrens area, Jan Naidu and other Environmental Services Division staff investigate revegetation by pines. Studies have focused on the areas around the underground ring used by the Relativistic Heavy Ion Collider; a 1961-79 experiment to observe gamma ray effects on a forest environment; and the interrelationships of plants within the Peconic River ecosystem.

While working on these projects, Naidu and others have mentored students from local schools, including students provided by BNL's Office of Educational Programs. "In this way, we introduce promising students from the neighboring community to do research on some of the most important features of Long Island's environment," said Naidu (see photo page 3).

Last October, continuing a tradition started in 1996, BNL was the host site for the Fourth Annual Pine Barrens Research Forum, cosponsored by BNL, the Long Island Groundwater

(continued on page 3)

INSIDE



BNL's 'Big Bang' Images In Millennium Art Exhibit

What a Waste!

Light bulbs that cost $25,000 . . .

What a Waste!

Be Sure to Separate Waste Materials Before Disposal

In the home, light bulbs, fuses, plumbing fixtures, and older electrical appliances are all common goods that contain very small amounts of lead and can still be thrown away in the same trash bin. But at the Lab, these lead-containing items are considered a hazardous material when discarded in the same bag or bin as radioactive waste.

At Hanford, the DOE facility in Washington State that disposes of much of BNL's radioactive waste, containers are randomly x-rayed before they are accepted for disposal. When Hanford technicians recently spotted a couple of light bulbs in the same bin as BNL's radioactive waste, the bins were rejected, at an enormous cost to the Lab.

Kathy Carney, Manager at BNL's Waste Management Division, said, "It will cost the Lab about $25,000 to have a subcontractor separate this waste and ship it back to Hanford for disposal. In addition, the Lab must implement a series of corrective actions to ensure that future shipments do not contain a similar problem. These actions include training and x-raying of containers at BNL prior to shipment. The cost of this is estimated to be $30,000."

What to do

If you are in doubt about proper waste disposal procedures:

- Check the Standards Based Management System (SBMS) for waste requirements and for the "Prohibited Articles in Radioactive Waste Packages Posting"
- Ask your Department's Waste Management Representative
- Check the Waste Management Division home page for answers to frequently asked questions, see http://www.wmd.bnl.gov
- Contact Waste Management staff or Kathy Carney, Ext. 3378.

ANS Awards (*cont'd*)

sador to the Conference on Disarmament in Geneva. In 1995, she served on a presidential advisory panel to produce a classified report on U.S.-Russian nuclear security issues, which has influenced U.S. policy developments in this area.

Kempf holds bachelor's degrees in chemistry and German, a master's degree in radioanalytical chemistry, and a Ph.D. in physical chemistry, all from Rensselaer Polytechnic Institute. She was an assistant professor of chemistry at Fort Lewis College in Durango, Colorado, before joining BNL in 1982.

Kempf expressed her appreciation to the ANS for showcasing the accomplishments of women in technical fields. "It is refreshing to be called up from the depths of involvement in work to receive this type of recognition," she said. — Karen McNulty

Inside Information

Congratulations to Ruth Kempf, Department of Advanced Technology Deputy Chair (see story, page 1 and above), and to BNL's Relativistic Heavy Ion Collider personnel. They were chosen as "Woman of the Year" and "People of the Year" respectively for 1999 by the *Times Beacon Record*.

Computer Training

The Information Technology Division (ITD) will offer the following software classes in February and March.

date	class
*2/4	PowerPoint, beginner
*2/7-10	Basic Mechanical Desktop 4.0 (4-day class)
2/9	Word, beginner
2/11	PowerPoint, intermediate
2/15-17	Administering Multiuser Windows (3-day class)
2/16	Outlook
2/17	Word, intermediate
2/18	Outlook
*2/22-25	Basic Mechanical Desktop 4.0 (4-day class)
2/25	Front Page
*2/28-3/3	Red Hat System Administration (2 sessions of five 1/2 days, all a.m. or all p.m.)
3/3 & 8	Word, advanced (2-day class)

- The **Red Hat Linux** training class will be held in the PC training Room, Bldg. 515. The fee is $600/student.
- To register for the starred (*) classes, contact Pam Mansfield, Ext. 7286 or pam@bnl. gov.
- To register for other classes or to express interest in future classes, submit a Training Request Form and an ILR for the appropriate amount to Pam Mansfield, Bldg. 515. All classes are scheduled based on the number of requests received. See ITD's training page at www.ccd.bnl.gov/bnl/training for registration information and course outlines.

Stormy Weather

The following radio stations have agreed to carry announcements regarding emergency closings and delayed openings at BNL.

Station	Area	AM	FM
WCTO/WGSM	Smithtown	74	94.3
WBLI	Patchogue		106.1
WHLI/WKJY	Hempstead	1100	98.3
WBAB/WHFM	Babylon/Southampton	1440	102.3/95.3
WLNG	Sag Harbor	1600	92.0
WALK	Patchogue	1370	97.5
WRIV	Riverhead	1390	
WRCN	Medford	1570	103.9
WLIM	Patchogue	1580	
WBZO/B103	Suffolk/Nassau		103.1

Brookhaven's 'Big Bang' Images Featured in Millennium Art Exhibit

Science and art collided with a "big bang" on Thursday, January 6, when an art exhibit featuring an animation and still shots of anticipated Relativistic Heavy Ion Collider (RHIC) data and four-dimensional quantum chromodynamic data opened at Manhattan's PaineWebber Art Gallery.

The exhibit, "Beyond Appearances: Imagery in Science at the Millennium," explores realms that are detectable only indirectly, realms such as subatomic particles and cells, says curator Lynn Gamwell, director of the Binghamton University Art Museum of the State University of New York. "The images help convey the importance of visualizing scientific data," she says.

"The images help convey the importance of visualizing scientific data."

BNL's "big bang" images are computer simulations of what will happen on the subatomic scale when collisions of gold ions begin in RHIC later this year — the formation of a quark-gluon plasma. The "gold on gold" collision model is the work of Ron Longacre and the late Klaus Kinder-Geiger of the Physics Department. The visualization was the work of Ballard Andrews, Mike McGuigan and Gordon Smith of the Information Technology Division.

Another highlight from Brookhaven is a visualization of four-dimensional quantum chromodynamic (QCD) data of the pion propagator used to calculate properties of subatomic particles.

The data were calculated on the RIKEN/BNL/Columbia University QCDSP supercomputer by Shigemi Ohta of RIKEN, and Cheng-Zhong Sui and Bob Mahwhinney of Columbia. The QCD visualization was generated by McGuigan and Smith.

"This exhibit works on two levels," says McGuigan, who attended the opening reception with Longacre and Ohta. "It educates the public about the science content and shows off nature as a work of art on the subatomic, human, and astronomical scales.

"The opening gala was a lot of fun, with a large mix of people from the arts, business, and science," he says.

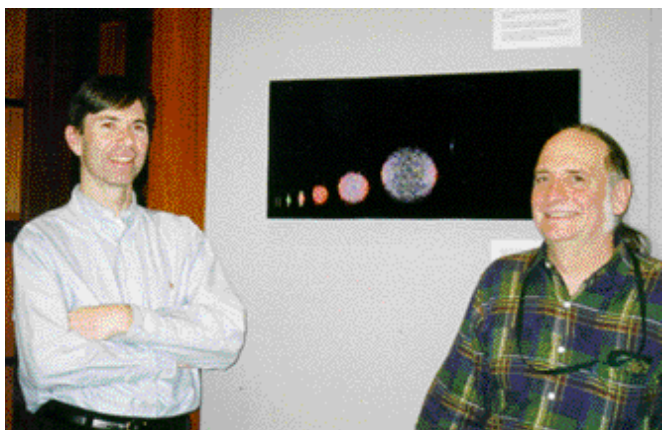
In addition to Brookhaven's work, the exhibit features neuromagnetic images of human consciousness, views from the Hubble Space Telescope, and images recorded by the Mars Pathfinder.

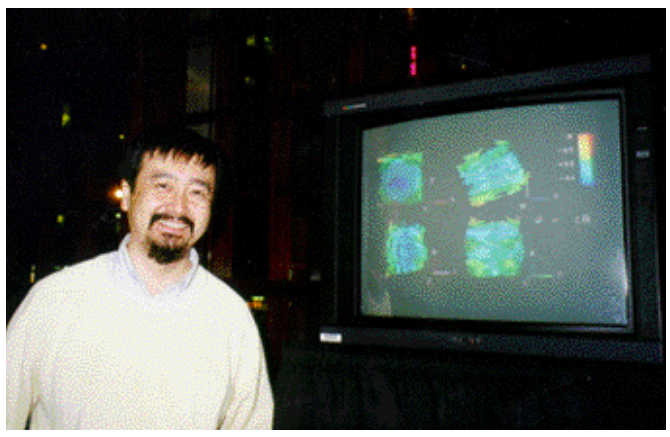
The PaineWebber Art Gallery is located at 1285 Avenue of the Americas. The exhibit will be open to the public through March 31, 2000, 8 a.m. to 6 p.m., Monday to Friday. Admission is free.

"This exhibit . . . educates the public about the science content and shows off nature as a work of art on the subatomic, human, and astronomical scales."

The exhibit will then be on display at the State University of New York at Binghamton from April 14, 2000 to May 19, 2000, and at the Massachusetts Institute of Technology in June 2001.

For more on the exhibit, including more photos from the gala opening, see: http://www.ccd.bnl.gov/visualization/art_exhibit/. — Karen McNulty





Pictured at the exhibit are: (above, from left) Mike McGuigan, Information Technology Division; Ron Longacre; Physics Department, and (below) Shigemi Ohta of RIKEN.

Arrivals & Departures

Arrivals

Luc Derrendinger ..... App. Science
Michael J. Dooling ..... Fin. Services
Christie S. Nelson ..... Physics
Beatriz Noheda ..... Physics
Jiufeng Tu ..... Physics

Departures

David E. Cox ..... Physics
Michael W. Greaves ..... Fin. Services
Hyun-Jo Kim ..... NSLS
Evagelia G. Moshopoulou ..... Physics
Helen Murray-Tobin ..... App. Science
Robert W. Safranek .... Emerg. Services
Connie J. Simiele ..... Waste Manag.
Gerald A. Simiele ..... Env. Services
Nelson E. Tyler Jr. .. Information Tech.

Healthline Events

These events, arranged by Health Promotion Specialist Mary Wood, Occupational Medicine Clinic (OMC), offer BNLers the chance to improve their well-being. To register or for more information, contact Wood at Ext. 5923 or wood2@bnl. gov.

2/3: Weight Management

"A Better You" is a nutritional education program organized by a registered dietitian. Starting Thursday, February 3, group workshops will be held on eight Thursdays noon-1 p.m., in the OMC small conference room, Bldg. 490. Fee: $99.

2/7: Healthline Lecture

Alan Hedge, Cornell University, will talk about "Computer Ergonomics, Keyboard & Mouse Positioning," on Monday, February 7, at noon in Berkner Hall. All are welcome.

2/8: Quit Smoking, Lose Weight

A "Green Seminar," combining hypnosis with behavior modification techniques to help you quit smoking or lose weight, will be held on Tuesday, February 8, 4:30-6:30 p.m., in Berkner Hall. Fee: $10 for new participants, free for past participants.

2/9: Weight-Watchers at Work

Registration for Weight-Watchers sessions will be at noon on Wednesday, February 9, in the south dining room of the Brookhaven Center. Starting February 16, the 10-week program will be held at the Center on Wednesdays, noon-1 p.m. Fee: $89.

Ski Camelback Feb. 16

Join the BERA-sponsored one-day ski trip on Wednesday, February 16, to Camelback Mountain Ski resort in Pennsylvania. The trip includes bus fare and lift tickets for $45/person. A new skier package (restricted) is available for $55; it includes lift tickets, equipment and a one-and-a-half-hour "beginner" lesson. Seniors over the age of 70 pay $35.

The bus will leave from the BNL tennis courts at 5:30 a.m. and return by approximately 8 p.m. Buy tickets at the BERA Sales Office, open from Monday-Friday, 9 a.m.-1:30 p.m., in Berkner Hall. For more information, call Andrea Dehler, Ext. 3347, or Bob Marascia, Ext. 7779.

Softball Captains

A meeting for BERA Softball League Captains will be held at noon on Wednesday, February 2, in Berkner Hall, Room A (note change of room).

To run or nominate someone for the League Board, you must attend the meeting. All teams planning to play this season should have at least one representative present. Bring preliminary rosters so that a league structure can be determined. Any new team will be placed in the League by the Board. For more information, e-mail softball@bnl.gov.

BROOKHAVEN BULLETIN

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On the World Wide Web, the Brookhaven Bulletin is located at www.pubaf.bnl.gov/bulletin.html. A Weekly Calendar listing scientific and technical seminars and lectures is found at www.pubaf.bnl.gov/calendar.html.

Roger Stoutenburgh

The student projects mentored by Jan Naidu, Environmental Services Division (see Pine Barrens story, page 1), included a 1993 study by Wendy Thomlinson, a senior at the University of Maine at Oronoto. Thomlinson counted BNL's deer population, which now includes this magnificent stag seen last fall in the Lab's pine barrens area.

Pine Barrens Research, Forums

(*cont'd*)

Research Institute of SUNY at Stony Brook, and the Central Pine Barrens Joint Planning & Policy Commission. Forum participants were welcomed by John Carter, DOE Brookhaven Group, and addressed by John Marburger, BNL Laboratory Director, Marvin Geller, SUNY Stony Brook's Marine Sciences Center; and Suffolk County Executive Robert Gaffney, Chair of the Pine Barrens Commission.

The keynote address, "Pine Barrens Drinking Water Resources in the Next Millennium," was presented by Michael LoGrande, Chair and Chief Executive Officer of the Suffolk County Water Authority.

Topics discussed included a talk by Volker Radeloff on the use of satellite imagery to monitor landscape changes induced by insect outbreaks in Wisconsin's pine barrens, post-fire pitch pine survival, groundwater, scrub-oak physiology, and ecological research in BNL's woodlands. A field trip to the U.S. Fish & Wildlife Services Wertheim National Wildlife Refuge along the Carmans River was led by Robert Parris, Deputy Project Leader of the 2,500-acre refuge.

To obtain the 1996-97 Forum Proceedings, which is free, call Naidu, Ext. 4263, or the Pine Barrens Commission (631) 563-0385. Later proceedings are in progress.

The 2000 Pine Barrens Forum is scheduled at BNL on October 12 and 13, and registration information will be published shortly. — Liz Seubert

Noon Recital, Feb. 2: Browder Will Preview Carnegie Solo

On Wednesday, February 2, pianist Zoe Browder will give a Berkner Hall preview of her upcoming February 12 solo recital at Carnegie Hall, where she will appear as the recipient of a Special Presentation Award from Artists International. An advocate of contemporary music, Browder has premiered over a dozen works at venues in New York City. She will perform works by Ligeti, Berio, Copland, and a new composition "RedLine" by Steven Bryant.

Noon recitals are free, informal and open to the public.

Rumba, Waltz, Mambo, West Coast Swing: Beginner Dance Lessons Start February 2

American rumba and waltz, and mambo and West Coast Swing will be taught at the beginner level on Wednesdays over eight weeks, starting Wednesday, February 2. Classes are offered in the North Ballroom of the Brookhaven Center by the BNL Ballroom, Latin & Swing Dance Club and are taught by Giny Rae and Peter Sciurca of Dance Magic in Smithtown.

The one-hour rumba and waltz class at level I begins at 5:30 p.m., while the mambo and West Coast Swing class, also at level I, starts at 7:30 p.m. Beginners and newcomers are welcome, including BNL employees, facility-users, their dance partners, family members and friends.

Continuing members may also register for the 6:30 p.m. class reviewing American swing and International jive at levels I & II.

The cost is $25 per person per eight-week class. To register with a partner before the first class, send a check payable to the BNL Dance Club to Marsha Belford, club president, Bldg. 134. To be put on a waiting list for a partner, those signing up without a partner must also send a check before the first class. If a partner is found, then you may register; if not, then your check will be returned. Partners may be found as late as the first day of class. For more information, call Belford, Ext. 5053.

Literacy Volunteers Urgently Needed

In Suffolk County, one in seven adults has little or no basic reading and writing or English-speaking skills. You can help by becoming a tutor with the Literacy Volunteers of America (LVA), Inc. After an eight-session training workshop in either basic literacy (reading and writing) or English for speakers of other languages (ESOL), you will be matched with one or more learners for tutoring sessions at a mutually agreeable public place, often a library. Volunteers are expected to meet with learners for at least two hours a week, with a commitment to the program of at least one year.

"We are in desperate need of tutors," says Joe O'Conor of BNL's Reactor Division, who has been an ESOL tutor for seven years. "I have had the most rewarding experience," he says. "You can really make a difference in somebody's life with the skills LVA provides." Retirees are also very welcome.

Training sessions begin:
April 3, Selden (Basic Literacy)
February 26, Riverhead (ESOL)
April 4, Amityville (ESOL)
May 1, Huntington (ESOL)

For more information, contact O'Conor, Ext. 2212 or oconor@bnl.gov.

BERA Board's Nominating Committee

The Executive Board of the Brookhaven Employees Recreation Association (BERA) has appointed the following Nominating Committee, all active BERA participants.

The Committee will select a slate of four candidates to run in the 2000 BERA Board elections scheduled for the last week in March:

Name	Dept.	Bldg.	Ext.
John Addessi	C-A	930	7268
John Blydenburg	Adm. Supp.	750	4422
Gail Brown	DAS	526	5850
E. (Pete) Cancel	Adm. Supp.	211	2320
Sue Cataldo	Medical	801	4461
Sonny DiMaiuta	C-A	902A	5265
Ralph Garappolo	Upton P.O.	179B	2539
Mickey Haller	Proc. & Prop.	355	7908
Jennifer Kozak	C-A	911A	4716
Denise Monteleone	Biology	463	3406
JoAnn Reed	Proc. & Prop.	902A	7009

To propose nominees, employees must contact a Nominating Committee member before Friday, February 11. Before proposing a candidate, check whether that person will be able to commit to being a Board member during the coming year.

Hospitality Committee

If you would like to join an on-site group of people who enjoy meeting weekly to speak and/or practise German, call Simone, 929-0043, for more information.

Omnipoint Demo Today

Omnipoint Communications will be in Berkner Hall on today, January 28, 10 a.m.-2:30 p.m., with special rates for BNLers buying digital PCS wireless services on Omnipoint's GSM network.

Service plans include free caller ID, voice mail, SMS messaging, and FOX News headlines. Plans range from $15.99 monthly with free phone, to 40 free minutes at $17.99 monthly, or to 250 minutes, with unlimited weekend calling for the year of the contract at $27.99 monthly. Call Richard Gall at (631) 343-5900.

Send a Love Note To Your Valentine

Use a Bulletin classified ad form that you mark "Valentine" to send one 15-20 word "love note" to the Bulletin, Bldg. 134, by next Friday, February 4, to have your message printed in the Bulletin on Friday, February 11. On the form, you must include your signed name, life number, and extension, but your name will not appear unless it is clearly part of the message. Copy must be deemed tasteful and will be accepted at the Bulletin's discretion.

33 BNL Motor Vehicles to Go on Public Sale

If you are planning to buy a vehicle, you might want to inspect and bid on one of 33 BNL motor vehicles to be offered at a public sale conducted as a sealed bid. The vehicles will be available for inspection on Tuesday and Wednesday, February 8 and 9, from 9:30 a.m. to 2:30 p.m. at warehouse T-87, where bid forms will also be available. Bid opening will be Thursday, February 24. For more information, contact Jerry Quigley, Ext. 4527.

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 employees within the department/division and/or appropriate bargaining unit, with preference for those within the immediate work group; (2) present 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; call the JOBLINE, Ext. 7744 (344-7744), for a list of all job openings; use a TDD system to access job information by calling (516) 344-6018; or access current job openings on the World Wide Web at http://www.bnl.gov/JOBS/jobs.html.

LABORAT0RY RECUITMENT - Opportunities for Laboratory Employees.

NS8640. AGS/RHIC USER ADMINISTRATOR POSITIONS - Requires an AAS/BS in an appropriate field, or equivalent, experience in the development of administrative procedures, excellent interpersonal, oral and written communication skills, knowledge of Laboratory policies and procedures, and computer and network-based communication skills. A good working knowledge of local commercial and community resources and the ability to perform a variety of complex administrative functions is necessary. Will manage various aspects of user administration within the user support office for the RHIC and AGS facilities. Must be resourceful in responding to the needs and problems of scientists visiting these facilities. Director's Office.

DD8602. TOOL CRIB ATTENDANT - Under minimum supervision, responsible for the complete and full-time operation of a tool crib. Receives and issues supplies, material, tools, and equipment. Responsible for checking conditions and quantity of items received and issued, and for maintaining stock at proper inventory level. Maintains tool crib in an orderly and efficient manner. Maintains records and performs paperwork necessary for operation of tool crib. Assists in inventory. Plant Engineering Division.

OPEN RECRUITMENT - Opportunities for Laboratory Employees and Outside Candidates.

MK8366. POSTDOCTORAL RESEARCH ASSOCIATE - to work on the development and construction of the ATLAS Cathode Strip Chamber System which will include the construction of detectors and electronic readout system. Requires a Ph.D. in particle physics and experience in data acquisition systems, data analysis and simulations. Familiarity with gaseous detectors desirable. Under the direction of V. Polychronakos. Physics Department.

MK8289. POSTDOCTORAL RESEARCH ASSOCIATE - Requires a Ph.D. in physical chemistry or physics and experience with laser spectroscopy, sensitive detection methods, and non-linear optics. Research involves working on the development of laser-based detection methods of trace atmospheric constituents. Under the direction of D. Imre. Department of Applied Science.

MK8290. POSTDOCTORAL RESEARCH ASSOCIATE - Requires a Ph.D. in atmospheric science or physical/analytical chemistry or related field. Experience with particle sizing and counting instrumentation, in particular electrical mobility analyzers and condensation particle counters, is desirable. Research involves the development and field deployment of instrumentation for rapid measurements of size-resolved aerosol physical and chemical properties. Under the direction of F. Brechtel. Department of Applied Science.

MK8291. POSTDOCTORAL RESEARCH ASSOCIATE - Requires a Ph.D. in atmospheric chemistry, organic or analytical chemistry. Experience in gas chromatography, liquid chromatography and mass spectrometry desirable. Research involves the investigation of mechanisms governing the transformation and distribution of atmospheric species including hydrocarbons, reactive nitrogen compounds, photo-oxidants and particulate matter. Research will involve instrument development, field measurement, and data interpretation. Training/background in atmospheric chemistry, organic chemistry, analytical chemistry or instrumentation is required; experience in GC, LC, and MS highly desirable. Under the direction of Y.-N. Lee. Department of Applied Science.

MK7923. POSTDOCTORAL RESEARCH ASSOCIATE - Requires a Ph.D. in nuclear or high-energy physics or related field with emphasis in computational aspects of physics. Will work in the Center for Data Intensive Computing on computational issues arising from the high energy and nuclear physics program, including simulation and processing of RHIC or ATLAS detector events. Will work together with physics staff and computational scientists at both BNL and SUNY at Stony Brook. Under the direction of A. Peskin. Department of Applied Science.

NS8459. PROJECT ENGINEERING POSITION - Requires BS/MS in engineering (environmental, nuclear, chemical or civil), environmental science, health physics or a related field and certification as a Certified Health Physicist. Extensive experience in the interpretation, application of and compliance with environmental regulations, especially NESHAP regulations relating to nuclear facilities, DOE research sites, and development and implementation of environmental radiation programs, is necessary. Knowledge of Federal, State and local environmental requirements applicable to air emissions is required, as is an in-depth knowledge of DOE orders and experience interfacing with regulatory agencies on environmental compliance and permitting issues. Strong supervisory, problem-solving skills and excellent oral and written communication skills required. Will provide technical support to research initiatives to ensure strict compliance with NESHAPs regulations and identify potential environmental concerns impacting Laboratory activities. Environmental Services Division.

NS8460. HYDROGEOLOGIST POSITION - Requires an advanced degree, Ph.D. preferred, in geology/hydrogeology with coursework or significant experience in hydrology. Substantial experience investigating, remediating and protecting groundwater required; experience with Region II regulators is a plus. Knowledge of CERCLA/RCRA permit and corrective action programs and background in environmental radioactivity in groundwater (mobility, half-lives, risks, etc.) is necessary.Excellent communication, team building and project management skills required. Duties will include the development and implementation of groundwater protection programs; technical evaluations of groundwater monitoring program requirements and development of Data Quality Objectives; and accessing groundwater programs for continual improvements. Environmental Services Division.

NS8560. REGISTERED NURSE, MR FACILITY (Term appointment) - Requires NYS Registered Nurse licensure, 2-4 years' nursing experience, previous clinical research participation and familiarity with MR procedures. Duties include patient/volunteer evaluations, intravenous catheter placement, infusion protocols, blood sampling and research and medical record charting. Medical Department.

NS7449. COMPUTER AIDED MANUFACTURING (CAM) PROGRAMMER - Requires a minimum of two years as a CNC Programmer or equivalent and specific training in the use of computer aided manufacturing. Under minimum supervision, responsible for preparing programs of unusual complexity for numerically controlled equipment using Computer Aided Manufacturing methods dealing primarily with three axes, but will include four and five axes as well. Will recommend specific software enhancements and perform other related assignments as required. Central Shops Division.

DD8152. LIBRARY ASSISTANT POSITIONS (Part time/term appointments) - Must possess basic knowledge of library and information service operations, standards, and procedures, and have demonstrated skills in one or more library functions. Requires specialized training or equivalent experience. Works independently within established procedures. Handles routine library and information science inquiries. Has frequent contact with resource personnel within and outside the Laboratory to obtain essential information for researchers. Also responsible for assisting library staff in the Research Library Public Services section. One half-time position will be mornings, including some weekend hours, the other half-time position will be Monday-Friday 5:00-9:00 pm. Information Services Division.

DD8425. DATA ENTRY POSITION - Under general supervision, will carry out a variety of data entry functions working in accordance with detailed procedures. Requires excellent computer skills in general office software, great attention to detail, exceptional organizational skills, and ability to deal with non-routine problems and ability to work independently. Familiarity with sampling chain of custody procedures is a strong plus. Will prepare, input and verify data and be responsible for maintaining the Environmental Restoration map library, including classifying, documenting, and filing maps. May also be called upon to perform general secretarial duties. Environmental Restoration Division.

DD8600. HEAVY EQUIPMENT MECHANIC-OPERATOR POSITION - Under minimum supervision maintains, operates, and repairs all material handling, earth moving, road and ground maintenance, and similar equipment, including complete repair and maintenance of gasoline and diesel engines and the use of required machine tools. Plant Engineering Division.