

Brookhaven's Maurice Goldhaber Wins Fermi Award

The White House has named Maurice Goldhaber, a BNL distinguished scientist emeritus, as one of two winners of the Enrico Fermi Award. Goldhaber will receive a presidential citation, a gold medal and a \$100,000 honorarium at a ceremony on April 16, in Washington, D.C.

The Fermi Award, which dates from 1956, is the government's oldest science and technology award given by the White House and administered by DOE. The award recognizes a lifetime of outstanding scientific achievement in the field of nuclear energy.

Goldhaber will receive the award for research in nuclear and particle physics. Goldhaber's citation reads: "For his lifetime of distinguished research in nuclear and particle physics, including his experiments providing key support for the standard model, and for his superb contribution to science by his leadership and vision as a manager of research."

The other Fermi winner is Michael Phelps, who is Chairman of the Department of Molecular & Medical Pharmacology at the University of California at Los Angeles School of Medicine. He is being honored for his contributions to the invention and use of positron emission tomography, a medical-imaging technique.

"It is a privilege to honor these scientists and their pioneering research," said President Bill Clinton.

Goldhaber is the fifth BNL scientist to be honored with the Fermi Award (see box). The other BNLeers who have been so honored are: Ernest Courant and the late M. Stanley Livingston, in 1986; Gerald Tape, 1987; and Richard Setlow, in 1988.

Distinguished Scientist

One of the world's most distinguished physicists, Goldhaber, working in 1934 with James Chadwick from the Cavendish Laboratory at Cambridge University, made the first accurate measurement of the mass of the subatomic particle known as the neutron. He thus showed that the neutron was not a compound of a proton



Maurice Goldhaber

and an electron, as was believed at the time, but a new particle.

Goldhaber later pursued a wide variety of research in nuclear physics, and his work was important in supporting the standard model, the modern theory of fundamental particles and forces.

In 1958, for example, Goldhaber and two colleagues, Lee Grodzins and Andrew Sunyar, conducted an elegant experiment that showed that subatomic particles called neutrinos have a property called "left handedness," providing confirmation of part of the standard model.

More recently, in 1998, Goldhaber was part of the Super-Kamiokande Collaboration in Japan which found evidence that neutrinos have mass, a

long sought-after finding.

Born in Austria, Goldhaber earned his Ph.D. in physics at Cambridge University, England, in 1936. Two years later, he arrived in the U.S. to join the faculty of the University of Illinois. He came to BNL in 1950, where he served as Chairman of the Physics

Department from 1960 to 1961, and Laboratory Director from 1961 to 1973.

During Goldhaber's tenure as the Lab's third Director, Brookhaven experienced an extremely fruitful period of scientific discovery.

For research carried out at the Lab during this time, three Nobel Prizes in physics have been garnered by visiting scientists. Meanwhile, in the medical sciences, Brookhaven researchers established the link between sodium in the diet and hypertension in salt-sensitive people. They also developed the drug L-dopa, used in the treatment of Parkinson's disease.

Since his retirement in 1985, Goldhaber has continued his research as a distinguished scientist emeritus. He has also been an adjunct professor of physics at the State University of New York at Stony Brook since 1961.

Goldhaber has received numerous awards during the course of his long and extremely productive career, including: the Tom W. Bonner Prize in Nuclear Physics in 1971, the J. Robert Oppenheimer Memorial Prize in 1982, the National Medal of Science in 1983, and the Wolf Prize in Physics in 1991.

He was president of the American Physical Society in 1982, and is a member of the National Academy of Sciences and a fellow of the American Academy of Arts & Sciences.

Goldhaber was married to the late Gertrude Scharff-Goldhaber, who was also a renowned nuclear physicist as well as BNL's first woman Ph.D. staff member and the third female physicist to be elected to the National Academy of Sciences.

— Diane Greenberg

BNL's Enrico Fermi Award Winners		
date	scientist	contribution
1999	Maurice Goldhaber	research in fundamental nuclear and particle physics, and scientific leadership
1988	Richard Setlow	contributions to radiation biophysics and molecular biology, and discovery of DNA repair processes
1987	Gerald Tape	advancement of atomic energy worldwide, and advocacy of nonproliferation of nuclear weapons
1986	Ernest Courant	contributions to particle-acceleration physics, and invention of strong focusing
1986	M. Stanley Livingston	development of particle accelerators, and discovery of strong focusing

Stephen Layendecker Manages New Radiological Control Division

Stephen Layendecker has been named manager of the Lab's new Radiological Control Division. Layendecker is a certified health physicist with 17 years of experience in health physics-related fields.

The Radiological Control Division was formed February 1st to improve

and raise the prominence of the Lab's radiological control programs. As head of the new division, Layendecker manages 86 employees who are collectively responsible for controlling, preventing and limiting exposure to on-site radiological hazards.

In addition, Layendecker is the project manager of what is called the radiation-protection re-engineering project, which was created last fall in response to concerns raised by DOE about the Lab's radiological control program.

"The Department of Energy's standards and expectations concerning radiological protection have significantly increased in recent years," explained Layendecker. "In addition, the public's awareness of radiological hazards at the Lab has also become heightened. As a result, there is no tolerance for lax performance, so we must do more than meet minimum standards."

Stephen Layendecker earned a B.S. in biology from Tusculum College in Tennessee, in 1979, and an M.S. in radiation biology from the University

of Tennessee, in 1981. From 1981 to 1987, he worked as a radiological engineer at the Three Mile Island nuclear-power plant in Pennsylvania, shortly after its well-publicized accident.

Layendecker then served as supervisor of the health-physics section of the Tennessee Valley Authority's (TVA) Watts Bar Nuclear Plant, from 1987 to 1989. He became staff health physicist of the TVA's radiological control section, providing technical direction and oversight of all TVA nuclear facilities.

In 1989, Layendecker joined IT Corporation, a consulting firm in Knoxville, Tennessee, as a health physicist. In 1992, he joined Battelle Memorial Institute (BMI) in Columbus, Ohio, where Layendecker, until he joined BNL, served in three capacities: safety, health and environmental support manager; the BMI corporate officer for environment, safety & health; and

radiation safety officer for Battelle Columbus Operations.

— Diane Greenberg



Roger Stoutenburg

Stephen Layendecker

Coming Up

For the next Pegram Lecture series on March 12, 15 and 17, Graciela Chichilnisky, the UNESCO Chair of Mathematics & Economics at Columbia University, will present three lectures on "Biosphere and Society."

"Economic Returns From the Biosphere" on March 12, "The Kyoto Protocol and the Carbon Cycle" on March 15, and "Resilience and the Knowledge Revolution" on March 17 will begin at 5 p.m. in Berkner Hall. All are invited.

Ahead of Deadline, Main BNL Computers Ready for Y2K

With nearly a year to spare, the Lab's most critical computer systems are already prepared to handle the turn of the century.

On January 29, Brookhaven's Year 2000, or Y2K, specialists made the last adjustments to vaccinate the Lab's central computers against the millennium bug. That beat DOE's official March 31 deadline and even came in under the "stretch goal" of January 31 set by Energy Secretary Bill Richardson.

The achievement, though, applies only to "DOE mission critical" systems, such as e-mail, payroll system and the machines that control BNL's computer network. There is still plenty of work to be done on Brookhaven's "mission essential" systems and the estimated 3,000 personal computers, workstations and other computerized devices throughout the Lab that are important to departments and divisions.

"Beating this tight deadline shows DOE we can handle the Y2K problem — but we are not done yet," said Deputy Lab Director Tom Sheridan, who is in charge of Y2K activities at BNL. "Each employee has a responsibility to work with their Y2K representative to find and correct problems in computers and devices that use computer chips."

By March 31, all BNL computers and computer-controlled devices, known as embedded systems, must be able to process the year 2000 date change successfully. If they cannot, they must be certified as "Y2K ready," which means they can still function as needed without correctly processing the date.

Sheridan thanked the staff who rose to the challenge to beat the DOE stretch goal. They are: Willie Crockett, Biology Department; Frank Quarant, Financial Services Division; Al Smith, Jim McManus and Paul Kessler, Information Technology Division; Gobi Gopinath and Hyun-Joo Kehayias, Physics Department; Pete Eterno, Plant Engineering Division; Randi Vogt, Reactor Division; and Bill Fritz, Relativistic Heavy Ion Collider Project.

Daffodil Sale

Again this year, BERA will sell bouquets of daffodils to benefit the American Cancer Society. Each bouquet will sell for \$6, and paid orders are being taken at the BERA Sales Office, Tuesday through Friday, 9 a.m.-1:30 p.m.

Pick up reserved bouquets 11:30 a.m. - 1:30 p.m. on Thursday, March 25, at the BERA Sales Office. Any extras will be sold that day and on Friday, March 26, in the Berkner Hall lobby, from 11:30 a.m. to 1 p.m.

For more information, call Andrea Dehler, Ext. 3347.

Computing Corner

The Information Technology Division (ITD) will offer the follow software classes in March and April. See ITD training page at www.ccd.bnl.gov/bnl/training for registration information and course outlines:

date	class	level
3/1	Word*	transition from WordPerfect
3/4	Outlook	
3/5	Word	beginner
3/9	Excel	beginner
3/10	Windows 95/98	
3/11	Word	intermediate
3/8-11	Mech. Desktop	
3/18	PowerPoint	intermediate
3/22-25	Mech. Desktop	
4/5-8	Mech. Desktop	
4/19-22	AutoCAD LT 98	

* Prerequisite is intermediate WordPerfect; training fee for half-day class is \$81.50.

‘State of the Lab’ Address by Marburger To Mark Anniversary of BSA’s First Year

One year ago on Monday, March 1, Brookhaven Science Associates (BSA) began managing BNL for DOE, at which time BSA President John Marburger also became Brookhaven's Laboratory Director.

So, next Monday, March 8, at 9 a.m., in Berkner Hall, Marburger will deliver a "State of the Laboratory" address to all employees, during which he will share his views on BSA's first year and his expectations for the second one. The Lab Director will also make some important introductions and answer employees' questions.

To accommodate as many BNLeers as possible, Marburger's talk will be broadcast into Rooms B and C in Berkner Hall. Afterwards, the videotaped talk will be accessible at www.wbnl.bnl.gov on the Web and will be shown on the kiosk in Berkner Hall.

At the conclusion of Marburger's address around 10 a.m., all employees — whether or not they attended the talk — are invited to join the Director for coffee and cake in the lobby of Berkner Hall.

BSA Cultural Program

London Actors on Stage at Berkner

As the next in a series of lunchtime events sponsored by the BSA Cultural Program, readings by London stage actors Jane Arden and Michael Thomas will be presented from Charles Dickens and Dylan Thomas, respectively, on Tuesday, March 2nd, and Thursday, March 4th, at noon in Berkner Hall.

Arden and Thomas are members of A Center for Theatre, Education & Research, or ACTER, which was established in 1975 to enliven classroom studies of Shakespeare and other classical authors, and to leave audiences inspired to hear more.

On Tuesday 2nd, Arden, whose extensive experience includes leading Shakespearian roles, musicals such as *The King and I* and *Lady Be Good*,



comedy and farce, will bring the extraordinary humor and humanity of Englishman Charles Dickens to life in her presentation of "Sketches by Boz."

Then, on Thursday 4th, Thomas, who has played the lead in *Romeo and Juliet* at the London Old Vic, toured with the Royal Shakespeare Company, and whose numerous television roles include satirical comedy, will present "Do Not Go Gentle," a selection of the haunting and characterful poetry and prose of Welshman Dylan Thomas.

BSA lunchtime events offer light entertainment to enjoy with lunch, starting at noon and continuing for 45 minutes. Audience members, who are expected to come and go freely, may bring lunch into Berkner.

Healthline Lecture Ovarian Cancer

Though only approximately one in 70 women will develop ovarian cancer during her lifetime, ovarian cancer causes more deaths than any other cancer of the female reproductive system.

To discuss "Ovarian Cancer: An Update," gynecologic oncologist Michael Pearl will present the next Healthline lecture, on Tuesday, March 2, at noon in Room B, Berkner Hall. All are invited to the lecture, which is sponsored by the Health Promotion Program (HPP) of the Occupational Medicine Clinic.

After reviewing the risk factors for ovarian cancer, Pearl will discuss the signs and symptoms, early-detection methods, and current therapies.

Michael Pearl, M.D., is a diplomate of the American Board of Obstetrics & Gynecology and its division of gynecologic oncology. In practice in Smithtown, Pearl is a clinical assistant professor in the departments of obstetrics, gynecology and reproductive medicine, and surgery at the State University of New York at Stony Brook.

To register for this lecture, complete and return the bottom portion of the Healthline flyer recently sent to all employees to Health Promotion Specialist Mary Wood. For more information about HPP and its Healthline lecture series, call Ext. 5923.

Family Night Tonight

The Hospitality Committee invites all on-site residents, their spouses and friends to bring the family and a desert to share to the Recreation Building for an evening of fun and games tonight, Friday, February 26, from 6:30 to 8:30 p.m.

To Your Health

Sponsored by the Health Promotion Program of the Occupational Medicine Division, the following programs are open to employees and their spouses.

Participants may sign up for one or both days of the classes offered, but registration is required beforehand. To register, call Health Promotion Specialist Mary Wood, Ext. 5923.

Water Aerobics

Nine weeks of water stretching and exercise classes will again be offered at the Lab pool, Bldg. 478, from 5:20 to 6:10 p.m., on Tuesdays and Thursdays. The first classes will be on March 2 and 4, respectively.

Though registration is free, participants must pay the pool fee of \$2 a session or show their season pool pass.

Cardio Kickboxing

Cardio kickbox classes will be again offered from noon to 1 p.m. in the North Ballroom of the Brookhaven Center. The Monday and Thursday classes will run for nine weeks, beginning March 1 and 4, respectively.

Cardio kickboxing is a cardiovascular-fitness activity involving non-contact martial-arts kicking, boxers' punching drills, stretching and strengthening exercises, and self-defense moves. Practicing cardio kickboxing improves stamina, builds strength and increases flexibility.

Each class is \$5 per participant, payable monthly.

Dosimetry badges will be changed today, Friday, February. Therefore, please place your badge in its assigned rack space before leaving work today.

Superfund Cleanup OU II/VII Meeting 3/3

As part of BNL's Superfund cleanup process, DOE is seeking public comment until March 20th on the remedial investigation and risk assessment report for areas on the Lab site identified as operable units (OU) II/VII.

Operable units II/VII covers contaminated soils located around the center of BNL's property. After identifying the contamination and its extent within these areas, an assessment of the contamination's potential risk to human health and the environment was performed.

A fact sheet on the report was recently mailed to all employees. The report's executive summary can be found at www.oer.dir.bnl/ou2doc.html on the World Wide Web, and the entire report may be reviewed at the Research Library, Bldg. 477.

An information session on the report will be held on Wednesday, March 3, from 11:30 a.m. to 1:30 p.m. in Berkner Hall. There, technical staff from BNL's Environmental Restoration Division will be available to answer questions on the operable units II/VII investigation. All are invited to attend.

Comments on the report may be sent to George Malosh, DOE Brookhaven Group Manager, Bldg. 464, or to OU2comments@bnl.gov.

Since 1989, the Lab has been a federal Superfund site, as 1/20th of Brookhaven's 5,300 acres is contaminated with hazardous and/or radiological waste due to past use and disposal practices. The Lab's cleanup is about halfway completed, and, by 2006, all contaminated soil will be cleaned up and all groundwater-treatment systems will be operating.

Benefit Notes

Benefit Office Hours

The hours for the Benefits Office in the Human Resources Division, Bldg. 185, are limited to 8:30 a.m. to 1 p.m., Monday through Thursday. During those hours, call Muriel Pfeiffer, Ext. 2877, for information and assistance with BNL's insurance benefits.

Reimbursement Account Deadline

According to the Internal Revenue Service, claim forms must be submitted by March 31, 1999, to use up balances within 1998 health-care and dependent-care reimbursement accounts, or else those balances will be forfeited. Claims against 1998 contributions can only be made for expenses incurred in 1998. Obtain claim forms from the Human Resources Division, Bldg. 185, or call the Benefits Office (see above). Mail claim forms to: CIGNA Reimbursement Accounts, P.O. Box 976, Bristol CT 06010. For more information, call (800) 242-2269.

CIGNA Dental Copay Schedule

Effective January 1, 1999, CIGNA issued a new schedule of copayments for procedures done under the CIGNA Dental Plan. Participants in that plan should have received their new schedules before the effective date from CIGNA. Additional copies are available in the Benefits Office, Human Resources Division, Bldg. 185.

Arrivals & Departures

Arrivals

Mei-Li Chen Physics
Lisa M. Miller NSLS
Brian P. Sack Director's Off.
Marie C. Van Buren Financial Serv.

Departures

Adele M. DiBiasio Adv. Technology
Curtis Hennig AGS
Elizabeth A. Kazmark Occup. Med.
Bruce A. Martin RHIC
Amena H. Saiyid Media & Comm.

**BROOKHAVEN
BULLETIN**

Published weekly by the
Media & Communications Office
for the employees of
BROOKHAVEN NATIONAL LABORATORY

MARSHA BELFORD, Editor
UZ SEUBERT, Assistant Editor

Bldg. 134, P.O. Box 5000
Upton NY 11973-5000
Tel. (516) 344-2345; Fax (516) 344-3355

Employees who wish to propose nominees are encouraged to do so by contacting any of the nominating committee members before next Friday, March 5. Before proposing someone, employees are asked to make certain that that person is willing to accept the nomination if selected by the committee.



Between October and April of each year, the BERA Racquetball Club organizes three leagues whose members play their matches on courts at Racquet Time in Farmingville. Pictured are the BERA Racquetball Club's 1998 champions: (front row, from left) Rich DeRocher, third place in the A league; Joe D'Ambra, 1998 Commendation Award winner; Chris Ceresko, second place, B league; Ron Prwivo, first place, B league; (second row, from left) Jean Odin, second place, C league; Anette Meier, third place, B league; Marty Woodle, 1998 Outstanding Sportsperson; Izzy Garcia, first place, A league; Lou Adessi, fourth place, B league; and Diana Votruba, third place, C league. Absent from the picture are: Gloria DeBoer, first place, C league; and Frank Karl, second place, A league. For more information on the BERA Racquetball Club and its league play, call Bob Marascia, club chair, Ext. 7779, or visit the club's Web page at www.rball96.bnl.gov/.

All Softball League captains are invited to a meeting on Wednesday, March 3, at noon, in Room C, Berkner Hall. There, rosters that have not been submitted to softball@bnl.gov will be collected, along with a \$50 per team commitment fee. The remaining dues will be collected at a second meeting, on Wednesday, March 17, after which the game schedules will be determined. For more information, contact Laurie Pearl, Ext. 5520 or pearl@bnl.gov.

First awarded in 1986, the scholarship honors the late Renate Chasman, a noted BNL accelerator physicist who co-designed the Lab's National Synchrotron Light Source, and whose work has influenced the design of synchrotrons around the world.

Answering the phone on the air will be an opportunity for BNLeers to be seen working for a good community cause. To participate, send your name, extension and building number to Susan Sears, Bldg. 184B, Ext. 5461, or ssears@bnl.gov.

BERA's third annual Spring Fling will be held on Friday, March 19, at Knights of Columbus Hall in Patchogue, from 6 p.m. until . . . The cost of \$8 in advance and \$10 at the door includes hors d'oeuvres and music by E.T.; a cash bar will be available. Buy tickets from Charles Gardner, Ext. 5214, or Luis Nieves, Ext. 4897.

In a temporary change to the weekend dining schedule, the cafeteria — not the Brookhaven Center — will be open for breakfast and lunch, 7:30 a.m.-2 p.m., both tomorrow and Sunday, February 27 & 28. The Brookhaven Center will be open for dinner on Sunday, February 28, 5-11 p.m.

Scores from games on February 4
Wizards 73 Bombers 59

Terry Buck	20	Doug Aichroth	18
Al Boerner	18	Donald Davis	9
Santos Ortiz	14	Jerry Gaeta	9
Charlie Edwards	13	Tracy Fountaine	8
Reggie Sanchez	4	Steve Jao	8
Jim Rank	2	Brian Hobson	5
Rob Singleton	2	Pat Moylan	2

Three-point shots: Ortiz (4), Aichroth (2), Boerner (2), Buck (2), Gaeta, Hobson, Jao.

Knick 69 Bulldogs 44

Lee Walcott	17	Paul Hawthrowe	18
Jim Garrison	13	Louis Lalor	12
Rice Onare	12	Kevin Woodson	6
Shane Stadler	10	Troy Mayo	3
Todd Clatterbuck	8	Mitch Williams	3
Steve Springston	5	Greg Mack	2
Louise DiMauro	4		

Three-point shots: Garrison (3), Walcott.

Scores from games on February 11

Bombers 63		Knick 53	
Doug Aichroth	20	Shane Stadler	15
Jerry Gaeta	15	Rice Onare	10
Tracy Fontaine	12	Chris Fockenber	8
Steve Jao	9	Jim Garrison	8
Donald Davis	7	Lee Walcott	6
		Steve Springston	4
		Louise DiMauro	2

Three-point shots: Gaeta (3), Garrison (2).
Fountainaine, Jao.

Wizards 63 **Bulldogs 60**

Terry Buck	24	Paul Hawthorwe	23
Santos Ortiz	23	Troy Mayo	17
Al Boerner	7	Tim Powers	8
Rob Singleton	4	Greg Mack	6
Charlie Edwards	3	Louis Lalor	2
Reggie Sanchez	2	Mike Mallardi	2
		Pete Ratzke	2

Three-point shots: Ortiz (5), Mayo (4), Powers (2), Hawthorne.

Scores from games on February 18

Bombers 63		Bulldogs 62	
Doug Aichroth	18	Paul Hawthorwe	16
Jerry Gaeta	14	Troy Mayo	16
Brian Hobson	12	Greg Mack	14
Steve Jao	7	Pete Ratzke	7
Tracy Fountaine	6	Mike Mallardi	5
Donald Davis	4	Louis Lalor	4
Ron Mayo	2		

Three-point shots: Hobson (3), Mayo (3), Gaeta (2), Fountaine, Jao, Mallardi.

Wizards 84 Knick 60

Terry Buck	21	Lee Walcott	19
Jim Rank	17	Shane Stadler	16
Santos Ortiz	15	Steve Springston	12
Al Boerner	13	Rice Onare	4
Charlie Edwards	10	Jim Garrison	3
Reggie Sanchez	4	Todd Clatterbuck	2
Rob Singleton	4	Joseph Dvorak	2
		Louise DiMauro	2

Three-point shots: Rank (3), Walcott (3), Boerner (2), Buck, Garrison, Oritz, Stadler.



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 complete 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>.

LAB RECRUITMENT - Opportunities for Laboratory employees.

DD8256. SECRETARIAL POSITION - Requires an AAS degree in secretarial science or equivalent experience, and a thorough knowledge of Lab policies and procedures. Excellent oral and written communication skills also required. Must be proficient in processing of information using a personal computer (Macintosh and Wintel machines). Will utilize state-of-the-art software for complex scientific word processing, presentations, technical reports, and scientific journal manuscripts, database management, electronic schedules and E-mail (Microsoft Word, PowerPoint, Corel, WordPerfect, DeltaGraph, Calendar software and IPAP). Will arrange and process domestic and foreign travel, as well as provide various administrative secretarial support functions for group leader and staff members. Requires the ability to work independently, and to exercise initiative and good judgment. Department of Advanced Technology.

DD3236. SECRETARIAL POSITION - (term appointment) Requires an AAS degree in secretarial science or equivalent, with demonstrated excellent organization and PC skills. Familiarity with CERCLA file system needed. Will be responsible for the administrative record database and community relations database and for transporting multiple documents to repositories both on and off site, as well as the reorganization of the file room. Duties will include entering old correspondence into a new database. Environmental Restoration Division.

OPEN RECRUITMENT - Opportunities for Lab employees and outside candidates.

MK7657. POSTDOCTORAL RESEARCH ASSOCIATE - Requires a Ph.D. in theoretical physics and expertise in theory related to RHIC physics. Research will involve theory of heavy ion collisions at ultrarelativistic energies and in the structure of nuclear physics. Under the direction of R. Pisarski, Physics Department.

MK8002. POSTDOCTORAL RESEARCH ASSOCIATE - to work in the Gas Phase Molecular Dynamics Group in the Chemistry Department. Will focus on the investigation of structures, chemical reactivity and energy transfer dynamics of molecular free radicals important in combustion. Experimental techniques used include high-resolution laser-absorption spectroscopy using continuous wave Ti:sapphire and diode lasers applied to the study of transient molecular species. A Ph.D. in chemistry or chemical physics is required with a background in experimental molecular spectroscopy, dynamics or kinetics. Under the direction of T. Sears, Chemistry Department.

MK7817. POSTDOCTORAL RESEARCH ASSOCIATE - to participate in characterizing cellular responses to DNA damage at the protein level, including analysis of protein post-translational modifications, and in development of genetic approaches to dissecting DNA damage signaling in human cell culture systems. Requires a Ph.D. in biochemistry, cell biology, genetics or a closely related field. A strong background in biochemistry, molecular genetics and protein characterization highly desirable. Under the direction of C. Anderson, Biology Department.

NS3235. PROGRAMMER/ANALYST POSITION - Requires a BS in computer science and at least three years' experience in Oracle applications development and programming. Expertise is required in Oracle tools, Developer 2000 or other GUI, PERL, Java and C in a UNIX PC environment. Background in scientific field and experience with environmental databases and implementation of client/server technology is desirable. Responsibilities will include development of a suite of applications, including forms and reports for data entry, querying, and reporting, for an Oracle environmental database; design and development of a Web-based user interface; and implementation and documentation of data QA/QC processes. Environmental Restoration Division.

NS3237. DATABASE ADMINISTRATOR/COMPUTER ANALYST POSITION - Requires an MS in computer science or equivalent experience and expertise in physical and logical database design, preferably with environmental databases. Implementation of client/server technology in a UNIX PC environment and C programming is required; complete familiarity with Oracle and CASE methodology is essential. Experience in PERL, Java, Developer 2000 is desirable; background in chemistry or environmental science is a plus. Responsibilities will include administration, analysis, re-engineering, and implementation of an environmental database. Environmental Restoration Division.

NS7574. ENGINEERING POSITION - Requires a bachelor's degree in engineering or the equivalent, and several years' relevant work experience. Working knowledge of the nuclear and waste-management industry is required, as are excellent communication skills and PC expertise. Project management and financial background is necessary, as is the ability to provide innovative solutions to problems related to waste-management. Responsibilities include developing and maintaining a project/work schedule for the WMD, facilitating the integration of all activities of the Division, developing and maintaining budgets, conducting status meetings, and managing special projects. Waste Management Division.

NS7575. ENGINEERING POSITION - Requires a bachelor's degree in engineering, or the equivalent, several years related work experience in the nuclear and waste-management industry, excellent communication and PC skills, and prior supervisory experience. Ability to evaluate progress, and financial and staffing commitments, and to recommend changes to achieve overall objectives and the ability to develop techniques for making improvements in operations is required. Conduct of operations experience is desirable. Will supervise the activities of technicians, and prepare for and carry out disposal campaigns for all types of waste. Waste Management Division.

NS8099. WATER & SEWERAGE OPERATING ENGINEER - Under minimum supervision, lays out, constructs or installs, repairs, maintains and operates water and sewerage systems, related facilities and auxiliary equipment. Must obtain and maintain appropriate licensing or certification requirements. Previous experience in the operation of advanced water-treatment facilities is highly desirable. Plant Engineering Division.

NS8117. COMPUTER ANALYST POSITION - Requires a master's degree in computer science or a related field, and at least five years' experience in computing support within a research environment. Knowledge of and experience with UNIX system support and administration, including networked file systems and other tools and utilities, is required, as is programming experience at the systems level and utilizing modern programming techniques (object-oriented) and languages (C++, Java, etc.). Knowledge of object-oriented databases, object brokers, hierarchical storage managers (HPSS in particular), robotic tape systems and Windows NT is highly desirable. Relativistic Heavy Ion Collider Project.

NS8116. SCIENTIST/COMPUTER ANALYST POSITION - Requires master's degree in computer science, physics, or related field and at least five years of experience in computing activities associated with high-energy or nuclear physics detectors and processing of data therefrom. Knowledge of UNIX system support and administration, including networked file systems and other tools and utilities, is required, as is substantial programming experience using modern programming techniques and languages, including C++ and/or Java, and familiarity with C and FORTRAN. Knowledge of object-oriented databases, object brokers, hierarchical storage managers (HPSS in particular), robotic tape systems, and Windows NT is highly desirable. Responsibilities include participation in analysis of off-line computing requirements of large particle detector systems, and the design, development and operation of computing facilities to satisfy those needs. Relativistic Heavy Ion Collider Project.

DD8201. HAZARDOUS WASTE MANAGEMENT TECHNICIANS - Requires an AAS degree in chemistry, engineering, physical sciences, or equivalent experience. Responsibilities include, but are not limited to, the pickup, packaging, transportation, storing and bulking of hazardous and radioactive wastes. Additional responsibilities include completing and maintaining certifications required for the operation of the Waste Management Facility. Ability to operate handling equipment and to obtain and maintain a commercial driver's license also required. Waste Management Division.

DD8111. QUALITY ASSURANCE ANALYST - (term appointment) Requires an AAS degree in a technical field, combined with several years' experience in an engineering and manufacturing environment, preferably as a quality analyst. Knowledge of configuration control principles and advanced word-processing skills necessary. Responsibilities include the generation, processing and distribution of documentation in support of magnet construction, including travelers, work orders, discrepancy reports, and engineering-change requests. Will review and approve end-item documentation. Will also provide support to quality engineering, incoming-inspection and inventory-control functions. Relativistic Heavy Ion Collider Project.

DD7816. BIOLOGY ASSOCIATE - (term appointment) Requires a BS degree in biology or biochemistry, and demonstrated ability to solve problems and work semi-independently. Computer skills are desired. Will work on genetic engineering of cotton. Major tasks will be gene cloning and engineering of fiber-specific genes, possible DNA sequencing, and comparison of promoter sequences and plant transformation. Biology Department.

DD8170. CHEMISTRY ASSOCIATE - Requires a BS degree in chemistry or analytical chemistry, and demonstrated technical competence. Will be responsible for operating perfluorocarbon tracer-analysis laboratory. Experience with gas chromatography, data systems, PC spreadsheets, preparation of standards, and routine laboratory procedures highly desirable. Requires routine operation and testing of highly specialized GC systems, and specialized programmable samplers. May require occasional fieldwork. Department of Applied Science.