

RHIC School Talks Physics

All this week, if the snatches of conversation around you seethed with strange matter, leapt lightly from leptons to photons, heated up on calorimetry and extinguished in jet quenching — chances are, you were listening to the 65 or so participants of RHIC School '93.

Structured as a seminar on special topics in heavy-ion collider physics, the RHIC School — which concludes today — is a workshop on physics and detector techniques related to research at RHIC — BNL's Relativistic Heavy Ion Collider, expected to come on line in the late 1990s.

"Most of the recent RHIC gatherings have had to be more formal reviews of progress in construction and funding proposals," said Associate RHIC Project Head Thomas Ludlam, Chairman of the Program Committee. "But, at this stage, informal discussion is a key objective. We have here an international gathering of younger scientists who are all involved in some way in heavy-ion experiments and hope or expect to be involved with RHIC or to understand the science of it. These are the people who will actually carry the ball for research at RHIC and have the biggest stake in the long-range program. The idea is that they listen, learn and, above all, talk physics."

Ludlam explained that the workshop was planned to promote a free flow of ideas. Lectures on theoretical ideas and detector techniques such as calorimetry, given by senior scientists involved in the design of RHIC experiments, were followed by discussions on what could be done with the techniques.

Among the scientists who came to BNL to learn and talk were:



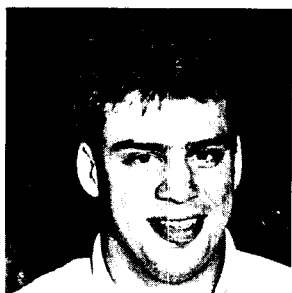
Christina Berisso

Coming to the U.S. from Argentina, **Christina Berisso** started working on Experiment 690 at Fermi National Accelerator Laboratory in 1990 and moved with part of the experiment's collaboration to do the data analysis as a post graduate at the University of Massachusetts at Amherst.

"A large percentage of my background is in nuclear physics, so I am very interested in RHIC," said Berisso. "It's a very important, unique project, which calls the attention of nuclear, high energy and astrophysicists. RHIC will take us back to the starting point of the universe, and we should be able to learn a lot about the fundamental constituents of matter."

Jeffrey Gross, a graduate student at Creighton University in Omaha, Nebraska, arrived at BNL on Saturday 21, having shared the driving with fellow Creighton grad students Demitri Muna and Andrew Green, who are also attending the school. He is involved in developing slow controls for the STAR experiment, one of the two large RHIC detectors.

Said Gross, "Slow controls are used to set, monitor and control subsystem parameters, generate alarms and archive pertinent data. RHIC School



Jeffrey Gross



Boris Semenov

his departure, three days later than the school's ending, were planned to allow him some extra



Pictured during a break in the proceedings are the organizers of the RHIC School '93: (from left) Alan Stevens, Thomas Ludlam, Bonnie Sherwood, Sebastian White and Edouard Kistener, all from BNL.

— Photos on this page by Roger Stoutenburgh

'93 has provided me with a better understanding of the mechanical workings of the experiments, and, also, the physics behind them."

A staff scientist at the Institute for Nuclear Research in Troitzk, Russia, **Boris Semenov** had heard discussions about experiments at RHIC. "Then, when I had found out about the RHIC School this summer, I knew it would be a good opportunity to learn more about RHIC physics and experiments," said Semenov, who specializes in the study of materials for particle detectors, mainly for calorimeters, one of the main topics being discussed during this week.

Semenov's arrival, three days early, and his departure, three days later than the school's ending, were planned to allow him some extra

experience working with Russian colleagues who have been building instrumentation for Experiment 865 at BNL's Alternating Gradient Synchrotron. "It is hard to find time for everything," he said, "but it is very useful for me to participate in this workshop."

Peter Steinhäuser is a physicist from CERN, on leave of absence from Gesellschaft Für Schwerionenforschung (GSI) in Germany. At CERN, the European particle physics laboratory, Steinhäuser is working on recently tested, new silicon drift detector technology invented by Pavel Rehak of BNL's Physics Department and visiting BNL senior scientist Emilio Gatti. "This type of detector will be heavily used in the RHIC facilities," said Steinhäuser, who was pleased that his stay at BNL also provided an opportunity to talk with Rehak, whom he had first worked with at CERN.



Peter Steinhäuser

"What is happening at RHIC is fairly similar to what happened at CERN before I came there," continued Steinhäuser. "At CERN, we hear the history, but at RHIC, now, we see it develop — what is successful, what needs work. It is a stimulating time — to see it from the beginning."

— Liz Seubert

Very Long Baseline Array Formally Enters Service

Last Friday in Socorro, New Mexico, a ceremony marked the formal opening of the Very Long Baseline Array (VLBA). Built by the National Radio Astronomy Observatory (NRAO), BNL's sister laboratory, the VLBA offers scientists the most detailed views of celestial objects available from any telescope on earth or in space.

Consisting of 10 far-flung but fully correlated, identical radio telescopes, the VLBA is the largest dedicated astronomical instrument in the world. Each of its ten 25-meter-(82-foot) in-diameter, dish-shaped antennae is in a different location, ranging from Hawaii to the Virgin Islands, with eight telescopes strategically placed around the continental U.S.

U.S. Senator Pete Domenici and Congressman Joe Skeen, both of whom represent New Mexico, were honored guests and speakers at the ceremony marking the formal entry into service for the VLBA. The instrument's construction has been a seven-year, \$85-million project for NRAO, which, like Brookhaven, is operated by Associated Universities, Inc. (AUI). But, while AUI manages BNL for the U.S. Department of Energy, NRAO receives its funding from the National Science Foundation.



NRAO Director Paul Vanden Bout said, "Now, astronomers have the instrument needed to investigate the objects that have caught our attention: radio source jets that appear to move faster than light, galactic centers harboring black holes, masers and supernovae carrying clues to the shape of the universe."

Unlike optical telescopes, which collect visible light, radio telescopes collect and amplify the radio waves emitted by all objects in the universe at varying wavelengths. The VLBA's resolution is more than 1,000 times that of the largest optical telescopes and about 50 times that of NRAO's previous largest radio telescope, the 27-antenna Very Large Array in New Mexico. With such sharp radio "vision," a person at BNL could read a newspaper in Los Angeles.

To make images of astronomical objects, the VLBA uses ultrasensitive radio receivers, superfast tape recorders, atomic clocks accurate to within one second in a million years, and a high-performance computer that can perform 750 billion multiplications every second.

These components form what will be a leading tool for tackling astronomy's most challenging problems. The VLBA will yield insights on the size and age of the universe, the evolution of stars and galaxies, and the physical mechanisms behind powerful quasars, the nuclei of galaxies and pulsars. Closer to home, the VLBA will be used for research on global climate change, earthquakes and spacecraft navigation.

All 10 of the VLBA's radio telescopes are operated from Socorro. Two technicians are assigned to each site to change and collect the magnetic tapes containing 10 hours worth of data periodically, then send them to Socorro for correlation with tapes from other antennae.

Scientific observations using the partially completed VLBA have been conducted since 1987. And on May 29 of this year, the VLBA made its first astronomical observation with all ten stations recording scientific data.

Leaving the Lab — After 35 Years or More

The Bulletin salutes employees who retire with 35 years or more of Laboratory service.

Despite three years of college chemistry and three years of Army experience, Frank Thomsen wouldn't have thought to apply for a job at the Lab if his parents didn't square dance.

On the Long Island square-dance circuit, "They met John Blewett, who was an avid square dancer at the time," recalls Thomsen. Now a BNL retiree, Blewett was an accelerator physicist. "I guess they told him about their son who had come home from the service, and he told them about the opportunities at the Lab for me."

So, Thomsen looked for work at Brookhaven and was hired as a technician C on April 23, 1956, to work within the Metallurgy Division of the Nuclear Engineering Department. Today, some 37 years later, he is retiring as a technical associate II from the same division, which is now known as the Materials Science Division in the Department of Applied Science (DAS).

Thomsen began work at the Brookhaven Graphite Research Reactor, where he helped with neutron refraction studies of oil by the Esso oil company, now known as Exxon.

When Thomsen's Q clearance came through in July 1956, he became involved in the work for which he was hired — testing the ability of such liquid metals as lead-bismuth and mercury to corrode reactor vessels. Though nuclear reactors using a liquid-metal for cooling were then thought to be safer than those using water, one reason that the project was shelved was the corrosiveness of the liquid metal.

Meanwhile, Thomsen moved up the technician ranks: to advanced technician in January 1959, senior technician in 1962, and technician specialist IV in August 1967.

In March 1968, Thomsen transferred into the Physics Department to work for Gen Shirane's neutron scattering group, doing experiments at the High Flux Beam Reactor "That



Roger Stoutenburg

Frank Thomsen

was fun," comments Thomsen. I was in charge of mounting the samples, cooling them down and maintaining the cryogenics. In fact, Bob Birgeneau

[MIT] complimented our group, saying that he was impressed because he could bring a sample one day and take data on it the next."

Promoted to a senior technical specialist in July 1970, Thomsen went back to Metallurgy in 1973, to assist former BNL scientist Chandra Pande in the study of materials using an electron microscope. Thomsen prepped samples and kept the microscope up and running for research on, among other things, superconducting tapes and the suitability of iron-titanium for use in hydrogen fuel cells.

He next worked for the photovoltaics group, helping in the development of better solar panels for the production of electricity. He attained his present title in October 1980. When the photovoltaics program was cancelled in the mid-80s, Thomsen began working for his current supervisor Ramesh Budhani, putting his experience with thin films gained from build-

ing solar panels to use in the study of thin films of high-temperature superconductors.

Now, with his house in Saint James in contract and money down on a house in Midwest City in central Oklahoma, Thomsen is retiring to, as the city's name says, the Midwest. "My eldest son lives there, and the cost of living will allow my wife Diana and me to do a lot more in retirement," explains Thomsen, who is leaving his daughter and youngest son on the East Coast.

After moving, the Thomsens plan to make many trips with their newly purchased motor home — to Alaska and the Southwest, to name two of their destinations.

"Leaving after so many years will be bittersweet because I have made so many friends here, and it has been fun," concludes Thomsen. "I've seen a lot of changes on site over the years, and now it's time for a change for me."

— Marsha Belford

The AUI Long-Term Care Plan: Considerations and Case Histories

As announced in the Brookhaven Bulletin two weeks ago, effective January 1, 1994, Associated Universities, Inc., will be offering a new group-insurance plan to provide long-term care coverage to employees, their spouses, parents and parents-in-laws, as well as to retirees, their spouses and surviving spouses.

Underwritten by Aetna Life Insurance Company, the AUI Long-Term Care Plan covers a participant who, because of injury, illness or aging, needs continual help from another person to carry out activities of daily living for an extended period of time — expenses not covered by most standard medical plans or federal programs like Medicare.

The full premium cost for this coverage will be paid by participants, based on age and daily benefit option selected.

A provider of group long-term care (LTC) coverage since 1987, Aetna has found that the need for long-term care can occur at any age, as the following examples show:

Case History #1 — Informal Home Care

Sara was 34 when she was seriously injured in a car accident. Recently divorced, she was living at home with her parents, both of whom worked full-time. Once out of the hospital, Sara needed daytime help with walking, personal grooming and feeding herself during her long recuperation. Since her parents couldn't provide this help, they needed to hire a companion for Sara.

Prior to her accident, Sara had been offered LTC coverage as part of her benefit plan at work. Despite the fact that she didn't think she might need long-term care for many years, she decided to purchase it for the future.

Because her LTC plan provided informal care benefits, Sara's sister Julie could quit her part-time job and become Sara's full-time daytime caregiver. So, someone was with Sara all day, rather than the few hours that a home health-care agency would provide — and she and her parents were helped through a difficult financial and emotional time.

Case History #3 — Nursing Care Facility



In 1988, Sam, a retiree, suffered a stroke. He was hospitalized and then admitted to a skilled nursing facility. Though his medical condition was stable, he was paralyzed on one side and required continual help with the activities of daily living.

Because he participated in daily physical therapy and his potential to be rehabilitated was high, Sam's group medical insurance and Medicare covered the first 80 days that he was confined to the nursing facility. But, when his physical therapy stopped, so did his coverage.

Early in his retirement, however, Sam had enrolled in an LTC plan through his former employer. Thus, he was able to continue receiving round-the-clock care in the nursing facility as long as it was necessary.

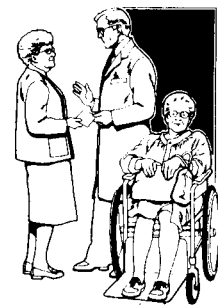
Case History #3 — Adult Day Care

Mary, a widow, lived with her son Bill and his family.

She was 60 when she enrolled in the LTC plan through Bill's employer; several years later, she was diagnosed with Alzheimer's disease.

Bill and his wife worked outside the home, and their two daughters attended middle school. As Mary's condition worsened, her family grew more concerned for her well-being. She was no longer able to get dressed in the morning, prepare breakfast or feed herself. Her family was especially fearful of the daytime, when no one would be home with her.

Using Mary's LTC benefit, Bill enrolled her in a local adult day-care center. Her coverage not only helped offset the cost of this care, but it also allowed her to remain with her family.



Some Considerations

These scenarios are samples of situations that can require long-term care. Premiums, of course, will vary depending on such factors as age, medical status at sign-up and daily benefit option selected — \$75, \$100, \$125 or \$150 a day for care received in a nursing home, or half the daily benefit amount for care at an adult day-care facility or at home, for either a five-year (Option 1) or three-year (Option 2) lifetime maximum.

While the full range of premiums for each option will be distributed next month, here are some sample premiums:

- A 42-year-old employee opting for the \$100 daily benefit under Option 1 would have an annual premium of \$302.40. So, if he should suffer a loss at age 72, this employee will have paid \$9,072 in premiums (\$302.40 x 30 years). During the first year alone, however, he would receive \$36,500 toward nursing home care or \$18,250 toward home care.
- A 25-year-old employee choosing a \$150 daily benefit under Option 1 would pay \$153 annually.
- A 60-year-old who is a retiree or an employee's parent and who selects a \$125 daily benefit under Option 2 would pay \$906 each year.

In deciding whether to sign-up for AUI's Long-Term Care Plan, here are some other considerations:

- Does your family have a tendency to develop disabling health problems?
- What would you do if you or your spouse needed long-term custodial care?
- What are your projected financial resources? Can they provide the protection you need and keep pace with rising long-term care costs? To what extent can you rely on family and friends?
- Relative to your future care needs, how much personal financial risk are you willing to assume? Can you afford not to have long-term care coverage?

Active and retired employees should look for more information on the AUI Long-Term Care Plan in the September 17 issue of the Brookhaven Bulletin and in enrollment materials to be distributed toward the end of the month.

Then, employees, retirees and their spouses are invited to attend one of four informational meetings scheduled for 1:30 p.m. and 6 p.m. on Thursday, September 30, and 10 a.m. and 1:30 p.m. on Friday, October 1, in Berkner Hall. To avoid undue disruption of work activities, employees who wish to attend a meeting during work hours should obtain prior approval from their supervisors.

In Memoriam

A tragedy occurred on site this past weekend.

Jibril Mohammed Musa, a 19-year-old technical collaborator in the Department of Applied Science (DAS), was found dead in Bldg. 426 on Sunday, August 22, after having hanged himself.

A dean's list chemistry major with a 3.9 grade-point average at the State University of New York at Old Westbury, Musa was nearing the end of a two-month summer appointment with DAS's Environmental Chemistry Division.

"Jibril was one of our top students. We had a lot of hope for him, and we knew he was going to succeed in getting a Ph.D. in chemistry," said his supervisor, Judy Lloyd, a chemistry professor at Old Westbury and a research collaborator in DAS. She added, "We hope that we can determine the cause of this tragedy, so we can prevent something like this from ever happening again."

Musa was born in Addis Ababa, Ethiopia. He came to the United States in September 1991 to further his education.

A memorial fund is being established under Jibril Musa's name, with contributions to be sent to the UNICEF Children's Fund. To obtain more information, contact Monica Mazurek, Ext. 3275.



After-Tournament Tennis Party

The Tennis Committee will sponsor its annual after-tournament tennis party on Monday, August 30, at noon, at the tennis courts. All tennis-ladder participants, tournament players and supporters are welcome. Refreshments will be served.

Met Opera Tickets

Family-circle tickets for certain performances during the 1993-94 Metropolitan Opera season will go on sale on Wednesday, September 8, at the BERA Sales Office in Berkner Hall. Operas and dates available are listed below and at the BERA Sales Office, open weekdays from 9 a.m. to 1:30 p.m. Tickets are \$22.50 each, and employees may purchase as many pairs of tickets as they wish. All sales will be final; no refunds or exchanges:

- Fri., Oct. 1 *Madame Butterfly*
- Fri., Oct. 15 *Fidelio*
- Sat., Oct. 23 *Tosca*
- Sat., Nov. 6 *Stiffelio*
- Fri., Nov. 12 *La Boheme*
- Sat., Nov. 27 *Madame Butterfly*
- Fri., Dec. 17 *I Lombardi*
- Sat., Dec. 18 *La Boheme*
- *Sat., Jan. 8 *Les Troyens*
- Fri., Jan. 28 *Le Nozze di Figaro*
- Fri., Feb. 11 *Death in Venice*
- Sat., Feb. 19 *Le Nozze di Figaro*
- Fri., Mar. 4 *Dialogues of the Carmelites*
- Sat., Mar. 5 *La Fille du Regiment*
- Fri., Mar. 18 *Il Barbiere di Siviglia*
- Sat., Mar. 19 *Dialogues of the Carmelites*
- Sat., Apr. 2 *Der Fliegende Hollander*
- Fri., Apr. 15 *Aida*

*Starts at 6:30 p.m.; all other operas start at 8 p.m.

Cafeteria Menu

- Monday, August 30**
- Soup: Minestrone .80/1.10
 - Entree: Sliced flank steak w/mushrooms 3.65
 - Fitness Fare: Broccoli quiche 3.35
 - Carvery: Pastrami sandwich 2.95
 - Grill: Reuben platter 2.95
 - Fitness Salad: Tuna flake bowl
- Tuesday, August 31**
- Soup: Chicken rice .80/1.10
 - Entree: Omelet display cooking
 - Fitness Fare: Baked sole w/red onion 3.75
 - Carvery: Hot roast beef sandwich au jus 2.95
 - Grill: BBQ pork sandwich 2.95
 - Fitness Salad: Chef's bowl
- Wednesday, September 1**
- Soup: Tomato bouillon .80/1.10
 - Entree: Baked manicotti w/veg. 3.35
 - Fitness Fare: Chicken Dijon 3.45
 - Carvery: Baked Virginia ham sandwich 2.95
 - Grill: Monte Cristo platter 2.95
 - Fitness Salad: Fresh fruit entree
- Thursday, September 2**
- Soup: Cream of celery .80/1.10
 - Entree: Chicken Kiev w/rice 3.65
 - Fitness Fare: Flounder Florentine 3.75
 - Carvery: Corned beef sandwich 2.95
 - Grill: Chicken & Swiss on croissant 3.15
 - Fitness Salad: Oriental chicken
- Friday, September 3**
- Soup: New England clam chowder .80/1.10
 - Entree: Chicken piccata w/rice pilaf 3.60
 - Fitness Fare: Exhibition cooking
 - Carvery: Hot turkey sandwich w/gravy 2.95
 - Grill: Pacific mahimahi 3.85
 - Fitness Salad: Cantaloupe bowl
- Burger, Deli & Taster's Bar specials daily.*

Arrivals & Departures

- Arrivals**
- Gregory P. Harhay Advanced Tech.
 - Peter B. Sutherland Tech. Info.
- Departures**
- This list includes all employees who have terminated from the Lab, including retirees:
- Dwayne E. Branch Advanced Tech.
 - Muriel Kolomick Comp. & Comm.

\$wim, \$wam, \$wum

All records — from money raised to miles swum by teams and individuals — were broken during Swimarathon'93.

The fourth annual marathon swim at the BNL pool to raise money for the American Cancer Society (ACS), Swimarathon'93 brought in over \$6,100 — an increase of over \$2,100 from last year's record.

Over 12 hours on Saturday, July 17, a total of 63 swimmers put in 128.18 miles. That's up 12 swimmers from the record of 51 set last year and almost 27 miles from the mark set in 1991.

This year a new record was established: It was the first year that two teams shared the Team Award for raising the most money, as the Department of Advanced Technology (DAT) team and the National Synchrotron Light Source (NSLS) team tied for \$1,584 a piece.

The nine swimmers on the NSLS Team, however, swam the greatest team distance, 29.39 miles, while the nine DAT Team members put in second best mileage, 26.33 miles. They were followed by the Physics Team with 23.94 miles, and Adit's Team with 23.77 miles.

As a reward for the dollars that the teams earned, the ACS presented the DAT Team and the NSLS Team with a Panasonic stereo radio and cassette recorder, and a Panasonic portable CD player, respectively.

Pete Heotis was the individual who brought in the most money: \$263 versus the \$262 record set in 1990. Heotis, Greg Van Tuyle and M. Kay Dellimore of the Recreation Office organized the event for the fourth year.

By completing 11.40 miles, Steve Woronick broke the individual record for miles swum by 1.21 miles. Greg Van Tuyle put in the second most miles, 10.57, while Kathleen Tuohy came in third in that category with 7.05 miles.

For becoming a swimmer during Swimarathon'93 after taking up the sport only a couple of weeks before and for clocking a respectable 3.52 miles using a combination of strokes, Rich Stoner was given the Spirit Award, a Panasonic portable radio and cassette player.

The organizers of Swimarathon'93 extend a special thank you to the BNL lifeguards, headed by Susan Juzwak, for donating their time to the cause; to the 22 people who volunteered to count laps and supply refreshments; and to My Hero deli in East Patchogue, which, for the fourth of four years, has supplied party platters for the event.

Swimarathon '93 — Individual Distances

Swimmer	Laps	Miles	Swimmer	Laps	Miles	Swimmer	Laps	Miles	Swimmer	Laps	Miles
Dave Adler	106	2.00	Wlodek Gurny	212	4.02	Adrienne Lu	54	1.02	Christina Todosow	14	0.27
Dave Alburger	54	1.02	Liti Haramaty	20	0.38	Angela Lu	54	1.02	Helen Todosow	106	2.01
Mary Alburger	30	0.57	Matt Harrington	106	2.01	Jim Moran	106	2.01	Shaheen Tonse	106	2.01
Leile Andrews	38	0.72	Pete Heotis	161	3.05	Kathy Nasta	54	1.02	Tom Tully	110	2.08
Ballard Andrews	186	3.52	Jim Higgins	186	3.52	Dominique Paffrath	116	2.20	Kathleen Tuohy	372	7.05
Mike Barriere	106	2.01	Rene Holaday	160	3.03	Kara Roman	60	1.14	Mary Valentine	28	0.53
John Benjamin	108	2.05	Wally Hughes	24	0.45	Alex Sabelnikov	54	1.02	Cheryl Van Tuyle	106	2.01
Frances Brown	106	2.01	Al Huse	53	1.00	Betsy Schwartz	110	2.08	Greg Van Tuyle	558	10.57
Lauren Campisi	26	0.49	Vishwas Joshi	32	0.61	Lucy Shelenkova	28	0.53	Steve Woronick	602	11.40
Dee Casper	20	0.38	Roger Klaffky	144	2.72	Dan Simon	30	0.57	Ji Wu Yang	54	1.02
Patrick Coffey	160	3.03	Inn Kim	212	4.02	Martha Simon	54	1.02	Sharon Yen	54	1.02
Shira Fagan	148	2.80	Dave Kirby	106	2.01	Chris Slavinsky	53	1.00	Hong Zhang	38	0.72
Inan Feng	66	1.49	Shelley Landon	53	1.00	Dave Stock	54	1.02	Yingchao Zhang	160	3.03
Kate Feng-Berman	106	2.01	Beth Yu Lin	54	1.02	Rich Stoner	186	3.52	Mike Zhao	160	3.03
Margaret Foster	54	1.02	Cindy Lin	54	1.02	Fran Staudermann	26	0.49	Wei Zhao	106	2.01
Jack Guthy	212	4.02	Sophia Lin	26	0.49	Rich Thorp	14	0.27	Total	128.18	

Call for Bowlers

Applications for bowling with the Tuesday night men's league in Port Jefferson and the Thursday night mixed league in Shirley are due today at the BERA Sales Office.

A captains' meeting will be held on Wednesday, September 1, at noon, in Berkner Hall, Room B.

For information, call Ray Raynis, Ext. 3536, or Maryann Reynolds, Ext. 5241.

Service Awards

The following employees celebrated BNL service anniversaries during August:

- 35 Years**
- Benon H. Bielski Chemistry
 - Leon Green Adv. Tech.
 - Paul A. Michael App. Science
- 30 Years**
- Robert J. Warkentien AGS
- 20 Years**
- Peter M. Heotis Medical
 - Renee M. Tonini Mgmt. Info. Sys.
- 10 Years**
- Janice De Pass App. Science
 - Charles H. Hofmayer Adv. Tech.
 - Elaine Lowenstein Dir. Off.
 - James B. Murphy NSLS
 - Judith E. Otto Ph. & Gr. Arts

Equipment Demo

Leybold Vacuum Products and Leybold INFICON, manufacturers of vacuum pumps and instrumentation, will exhibit equipment in Berkner Hall on Tuesday, August 31, from 10 a.m. to 3 p.m. Products on display will include the only extractor gauge capable of measuring 1 x 10⁻¹² torr, the latest in residual gas analysis and a new thin-film monitor. A free vacuum-technology book will be available.

WordPerfect Group

The WordPerfect Users' Group will meet on Tuesday, August 31, from 10 to 11 a.m., in the Computing & Communications Division seminar room, Bldg. 515. The topic will be "Creating Styles."

Seating is limited, so call group moderator Pat O'Connor, Ext. 7341, by August 30, to confirm attendance.

Volunteers Needed

Male volunteers, at least 20 years old and in good health, are needed to participate in brain and heart-imaging studies being conducted by BNL. A fee will be paid; supervisory approval is required. For more information, call Naomi Pappas, Ext. 2694.

The Department of Applied Technology (DAT) and the National Synchrotron Light Source (NSLS) Teams tied for first place in raising money for the American Cancer Society during Swimarathon'93.

(Photo right) The DAT Team includes: (from left) Dave Stock, Kathleen Nasta and Helen Todosow. Missing: Mike Barriere, Jim Higgins, Inn Kim, Kara Roman, Greg Van Tuyle and Ji Wu Yang.



Peter Horton

(Photo below) The NSLS Team includes: (from left) Ballard Andrews, Spirit Award winner Rich Stoner, team captain Kate Feng-Berman, Roger Klaffky, Dave Adler, (top) Wally Hughes and (inset) Steve Woronick. Missing: Leile Andrews and Rene Holaday.



Peter Horton

AA Meetings

Next month, Alcoholics Anonymous (AA) meetings will be held on site after work on the following Mondays: September 13, 20 and 27. There will be no meeting on September 6 due to the Labor Day holiday.

All employees, retirees, others working on site holding current BNL identification cards and their dependents are invited to attend. For the location and times of the meetings, write to P.O. Box 641, Upton, New York 11973 or call the Employee Assistance Program (EAP), Ext. 4567. Callers will not be asked to leave their names, and all calls are confidential.

UNIX Training

UNIX training classes will meet in the Computing & Communications Division seminar room Bldg. 515 as follows:

- **Introduction to UNIX, \$300**
Mon.-Thu., 9/20-23, 8:30 a.m. to noon
Fri., 9/24, 8:30 a.m. to 5 p.m.
- **C Shell Programming, \$200**
Mon.-Thu., 9/20-23, 1 to 5 p.m.

To register, send an ILR for the correct amount to Pam Mansfield, Bldg. 515, before September 3. For more information, contact Mansfield, Ext. 7286.

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