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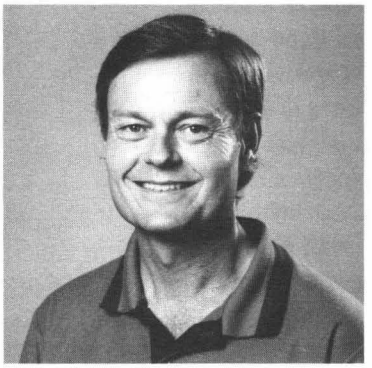
# Ferminews

FERMI NATIONAL ACCELERATOR LABORATORY

## Physics Department welcomes Peter to the pack; Roger Dixon to head RD

Peter Garbincius



Roger Dixon

Gene Fisk

After three years as head of the Research Division, **Peter Garbincius** has accepted a new assignment in the Physics Department. **Roger Dixon**, former head of the DØ Department, will replace Peter, who leaves the Research Division after 16 years.

"Peter has served Fermilab and the Research Division for many years," said **Ken Stanfield**, deputy director. "He was extremely energetic and dedicated during the time he was head of the Research Division." Under Peter's leadership, the Research Division has overseen two successful fixed target runs, an extensive shielding upgrade project and the adoption of a new ES&H culture. The DØ detector was completed, as were upgrades to CDF. Peter also assisted in the creation of the SSC Solenoid Detector Collaboration and the Fermilab SDC group.

Peter's tenure at the Research Division saw the beginning of conceptual design studies for neutrinos and kaons at the Main Injector as well as for the future use of kaons at the Tevatron. Other budding projects started during Peter's leadership are the Application Specific Integrated Circuits group and Silicon Vertex Detector Fabrication Facility. Proposals for additional upgrades to CDF and DØ also took shape.

Peter's former colleagues at the Research Division were unanimous in their description of Peter as "energetic." According to **Sam Childress** (RD), Peter's energy was especially evident during the shielding assessments and upgrades of 1991. "He took a very hands-on approach in terms of being sure things were being done right," Sam said. "He was truly ferocious, and he applied an enormous amount of energy. I would compare Peter to an IRS auditor in the way he was a stickler for making sure what we did, we did right."

Roger Dixon (RD) described Peter's energy in his support of DØ. "Peter was the head of Research Division after DØ went back to Research Division from Accelerator Division," Roger said. "It was a critical time for getting support. He threw his support behind DØ and made it a success by giving DØ needed staff and resources."

CDF's **Bob Kephart** was complimentary as well. "It's clear we did a big upgrade to CDF that required using people all over the Lab, all over the Research Division," Bob said. "Peter was part of that." Bob added that "he certainly was important in getting the Lab through ES&H changes and the Tiger Team Assessment."

Ken Stanfield also noted Peter's contributions in the area of ES&H. According to Ken, "the job was extremely challenging because of DOE's emphasis on ES&H culture. The level of formality of procedures brought an increased level of effort to (Peter's) role." Ken also noted Peter's finesse at handling scientific pursuits simultaneously with preparing for the Tiger Team visit. "From my point of view, it went extremely well under Peter's leadership," he said.

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# Posture Perfect

## Basic tips for back health

It's true that good posture is a reflection of the way we look and feel about ourselves, but it's much more than that. Good posture is one of the simplest things each of us can do to help our backs stay healthy and pain-free. Good posture can prevent muscle pain, stiffness and tension as well as back aches, pain and injury. Good posture is actually quite simple. It means keeping the three natural curves of your back (neck, chest and lower back) in balance while standing, sitting or lying down.

## Standing

Contrary to what most of us were taught, good posture does not mean standing with shoulders thrust back, chin forward, and spine straight as an arrow. Actually, you're using good standing posture when your ears, shoulders, hips, knees and ankles are "stacked" in a straight line. (Note: Your shoulders should be relaxed and your knees slightly bent.)

## Sitting

While sitting, you can keep your spine balanced by again "stacking" ears over shoulders and shoulders over hips. To prevent lower back strain, place a lumbar roll (or rolled-up towel or sweater) between your lower back and the back of your chair. Keep your buttocks resting against the chair back, and if your feet don't reach the floor, rest them on a footstool or box.

## Lying down

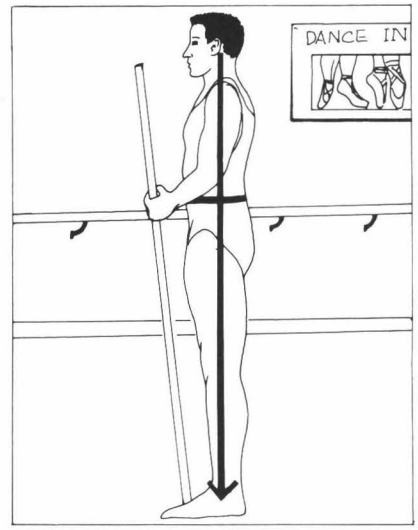
When lying down or sleeping, try resting on your side in a modified "fetal" position (knees slightly bent toward chest) or on your back with a pillow placed beneath your knees. Sleeping with more than one pillow under your head can exaggerate your neck curve and can place undue stress on your back. Choose a firm mattress for adequate back support.

## A healthier back

By using good posture throughout the day, you can help keep your back balanced and reduce your risk of back problems and injury. You'll not only feel better, you'll look better too.

*When lying down, rest on your side in a modified "fetal" position (knees slightly bent toward chest).*

*You're using good standing posture when your ears, shoulders, hips, knees and ankles are "stacked" in a straight line*




*While sitting, "stack" ears over shoulders and shoulders over hips. Use a rolled-up towel or sweater to support your lower back.*

# DØ takes first data

This spring heralded the arrival of Fermilab's most modern collider detector, the DØ detector. After much hard work and successful testing by DØ physicists and staff, the detector began operation in May.

The completion and commissioning of the DØ detector involved years of working under a tight schedule, said **Paul Grannis**, guest scientist in the DØ Department and spokesman for the project.

After the final assembly and installation of the many detector parts was finished in the summer of 1991, the detector underwent a series of lengthy tests. In February of 1992, the detector was pushed from the Assembly Hall to the Collision Hall where it was then aligned and positioned on the beam line and hooked up."A lot of hard work went in to starting up the experiment," said **Jim Christenson** of the DØ Department. "We had to make sure the entire apparatus worked properly on the Tevatron beam line in the Collision Hall."

By the middle of March, the detector was in place and tests were begun using cosmic rays. On the morning of May 12, the detector saw its first collision.

According to Paul, all major parts of the detector are working well and they have begun looking at their first events. "The total number of events is small compared to the amount in the total run," Paul said. "We expected to receive 25 inverse picobarns of data in the full run, but so far we have had only about 1000th of the that total."

As time goes by, Jim said, DØ will see more collisions. "Right now, the accelerator is still in the commissioning mode and we are attempting to set up the detector to select interesting collisions properly."

The accelerator is scheduled to be shut down for a two-week period starting July 20. Once it is running again in August, DØ should be in the position to see some interesting events, Jim said. Right now, DØ is getting preliminary data to calibrate the detector and the electonics with little in the way of publishable physics, he added,

In this run, DØ hopes to find the top quark, which Paul said is possible if the mass of the top quark proves not to be too high. DØ will also be making precision studies of the *W* and *Z* bosons and testing the electroweak sector of the Standard Model. Searching for new supersymetric particles and conducting a large variety of precision tests of QCD are also on DØ's agenda.

# Research Division
## continued

Peter, however, emphasized that his success and all of Research Division's were the result of a team effort. "I can't take any more than minimal credit for getting this stuff done," he said. "Everyone has contributed, so everyone can share in our accomplishments.

"My greatest pleasure over the years has been my association with such enthusiastic, dedicated and hard-working friends."

Fermilab's association with Peter has been a pleasure as well. "Peter's one of the good guys," Ken said. "He's a hard-working, dedicated fellow."

To maintain the quality of the Research Division, Roger Dixon and **Gene Fisk** have taken on new responsibilities. Roger has been appointed to acting head of the Research Division and Gene has moved into Roger's former role as head of the DØ Department.

Roger said he will be working to keep the continuity of the Research Division as he helps search for a permanent replacement for Peter. He will also be streamlining the division's programs and looking at future ones.

"The Laboratory is undergoing a fundamental change in operating mode," Roger said, "with larger experiments in both the fixed target and collider programs running for longer periods of time. It has become necessary to plan farther into the future. We will fine tune the organization to adapt to the new mode of doing high energy physics research."

Roger was head of the DØ Department since 1987. He served as head of Program Planning in the Director's Office from 1986-1987 and deputy head of the Research Division from 1984-1986. Recently, Roger was responsible for overseeing the installation and assembly of the new DØ detector. He is currently involved in DØ colliding beam experiments and the Saturday Morning Physics program.

As new head of the DØ Department, Gene said he will be concentrating on two major activities: the operation of the new DØ detector and the upgrading of the detector for the future Main Injector.

Gene said in his new role he will continue to emphasize and maintain ES&H issues. Gene has been the deputy spokesman for the DØ experiment since 1988. From 1986-1988 he was DØ Department head and from 1984-1986, Gene served as deputy head of the Technical Support Section. He was also closely involved in the review and buildup of software for the DØ detector.

*"I would like to thank and congratulate everyone who has helped to make these last few years so successful. It has been a team effort. . . Your boundless energy is a constant source of inspiration to me. I'm sure that before too long we will be working closely together again."*

*—Peter Garbincius*

# Tigers thank Lab

June 10, 1992

Dear Dr. Peoples:

As the first part of the Tiger Team process comes to a close, I wanted to express to you my appreciation for the tremendous support that you and your staff extended to our Team.

During my close-out address, I mentioned the excellent attitude and commitment displayed by you and your senior staff. This attitude was not only evident in the personal interest that you took relative to the Tiger Team findings and concerns, but also the time and effort that your people took to make us as comfortable as possible.

**Rich Orr**, **Cynthia Sazama**, **Sharon Koteles** and **Nancy Bartlett** all performed in an outstanding manner. (And, I am sure many others that I am just not aware of). Their willingness to tackle what at times seemed to be the impossible was only surpassed by their professional attitude and good spirits. They are each a credit to themselves and their organizations.

Again, thank you very much for making our Tiger Team Assessment as productive as possible. I look forward to working with you as you develop your corrective action plans.—*Harry T. Season, Jr., Tiger Team Leader*

# ESHTRK helps ES&H efforts

An innovative computer tracking system is aiding Fermilab's constant efforts to remain a safe and environmentally-friendly workplace.

A group of consultants overseen by **Vicky White**, associate head of the Computing Division, developed the Environmental Safety & Health Tracking System to fulfill a need identified by the Environmental Safety & Health Policy Advisory Committee. An ESHPAC subcommittee which included representatives from all over the Laboratory developed the concepts for ESHTRK. The subcommittee was chaired by Vicky White.

One-thousand four-hundred and twenty-two recent walk-throughs, reviews, and audits by both internal and external sources had resulted in a mass of information that was growing unwieldy. "Fermilab is a large organization," said **David Ritchie** (CD/HQ Staff), ESHTRK project manager. "It's not enough to assume people are fixing things. We need to track progress."

ESHTRK met the need. "It's a database that is a tracking system for findings, corrective actions, and action plans for implementing corrective actions," David said. The subcommittee developed the concept for ESHTRK in late summer and fall of 1991, and the actual construction of the software began in January 1992. The database was operating by April. "We're now using it and putting in additional findings," David said. "I'm in the process of training large numbers of people in the Laboratory on the system."

ESHTRK is not difficult to understand or use. The first step in the tracking process takes place when "someone determines that there's something we could do better," David said. Such a determination is termed a "finding." ESHTRK allows Lab employees to document original findings, the party responsible for addressing the finding and the action plan and timetable for finding abatement. Milestones in the journey toward a resolution are documented as they are reached.

"There's general access to anyone at Fermilab who has a need to track findings or manage resolutions," David said.

A recent survey of ESHTRK revealed 25,467 findings, far too many to be monitored without a central tracking system. ESHTRK consolidates the findings and makes them easier to manage. "It's intended to be a tool used by management," David said. "It allows managers to understand progress and look at trends and methods for fixing problems."

Managers are now using ESHTRK in the preparation of the Tiger Team Corrective Action Plan. The Tiger Team's findings were entered into ESHTRK within three days of their release to the Laboratory. The Laboratory responses are being entered as they are developed. When all is complete, Fermilab personnel will produce the CorrectiveAction Plan using the database and other supporting computer files. This plan responds to the findings cited in the Tiger Team Report.

# Wilson Hall construction continues

Construction is continuing on the Wilson Hall ground floor remodeling project that will add a new mezzanine and approximately 6,000 square feet of new office and conference space to the north end of the central laboratory building.

To facilitate the project, the following changes, effective July 9, have been made to Wilson Hall:

- **Elevator Service**: Ground floor elevator access is available via the west bank elevators only. East bank elevator service to the ground floor is closed until August.

- **Building Access**: The east ground floor entrance provides access to Visual Media Services. Handicapped access is now available via the west entrance. A telephone, closed circuit television monitor, and a remote lock release were installed to allow security guards to remotely open the door at night.

- **Parking**: There are six temporary handicapped parking spaces located adjacent to the sidewalk area in the west parking lot. Signs are posted on Road A-2 and in the west parking lot directing traffic to these parking spaces. Additional employee and visitor parking is available at the Pine Street overflow parking lot located north of the Science Education Center. Continued on page 5

# Prairie flourishes at Fermilab

It's the start of a new prairie season at Fermilab with the blooming of the white wild indigo, black-eyed susan, daisy fleabane, wild onion, foxglove, prairie phlox, American loostrife and many more. Later in the season, look for the yellow coneflower, sunflowers, asters and goldenrods. It appears that the dry spring weather did not noticeably affect the prairie. This is because many native prairie plants have roots as deep as six feet, allowing the plant to seek moisture during dry conditions. The late frosts, however, did destroy the above-ground parts of some species.

Several new tracts were planted with native grassland species this spring, including small areas between Pine Street north and south, and a large tract in the northeast corner of the Lab formed by Town and Wilson Roads. The interpretive trail native grassland is maturing well this summer; several species new to the tract have been found. Employees at the Science Education Center have asked for advice concerning planting native vegetation around their pond and adjacent fields—so look for some wetland and prairie vegetation soon.

This summer is the start of the first systematic study of the prairies inside the ring. Under the direction of Environmental Research Park Coordinator **Rod Walton**, summer intern and plant ecologist **Steve Banovetz** is designing a long-term successional study (the change in species composition over time). His work will include plant inventories, densities, markings, analysis and reporting.

Other work planned for this summer includes full operation of the new weather station, digitization of prairie information into a computer, weed control and prairie management.

*Steve Banovetz*

During their studies of the natural environment, Steve and Rod have noticed some "biomisconceptions." held by the public. Two of the most common are below:

1. "Wildlife" refers only to animals.

False! Wildlife includes both plants and animals. Often people do not consider plants as protected wildlife and violate preserve warnings.

2. The term "animals" does not include birds. Animals traditionally include organisms that ingest food, are motile and have multicellular bodies. Often you will see nature preserve information boards list protection of birds and protection of animals, as if birds are not animals. Animals include insects, birds, mammals, fish, worms, snakes, reptiles, sponges and numerous marine organisms.

If you have questions, reports of unusual wildlife sightings or behavior, or interest in Fermilab's unique biological communities, contact Steve Banovetz, x2565, MS119, Pager #800. Inquiries are welcome.

# Leave it a lawn

Lawn care isn't something you normally associate with saving the Earth. But when you consider that there are an estimated 20 million acres of lawn—and some 600 trillion grass plants—in the U.S., you can see the impact that watering, fertilizing and mowing them might have,

If you have a lawn, it's worthwhile to learn a few environmentally sound ways of taking care of it.

- If every landowner composted grass clippings, we could cut the landfill congestion by a whopping 18% during summer and spring.
- Avoiding overwatering can save about 12% of a homeowner's water use during the summer—an average of over 50 gallons a week. If 100,000 lawnowners avoid overwatering, 5 million gallons are saved.
- If even 10% of lawnowners began using organic pesticides, it would remove 2.5 to 5 million pounds of toxic chemicals from the environment every year.—*The Chemical-Free Lawn*, by Warren Schultz

# Wilson Hall continued

- **Mail**: All mail chutes in the Wilson Hall east tower are sealed. The west tower chutes are now open for the duration of the project.

According to **Kent Collins**, Wilson Hall building manager, these changes will remain in effect until the concrete mezzanine deck is formed and poured in front of the east elevators. This is expected to be completed by August 1. Once this is finished, access to the building will return to normal and access to the ground floor will be available via both the east and west tower elevators. At this time, handicapped access and parking will be restored to their original locations on the east side of Wilson Hall.

Starting August 1, the ground floor operations will become apparent to the public, said Kent. According to **Vic Kuchler**, assistant head of FESS, the remaining projects, such as electrical, mechanical and fire protection work, will continue with only minor interruptions to the access and services that support Wilson Hall. These work areas will be clearly marked and delineated from the access ways.

## Summer Science Project helps renew teachers

Thirty-five Illinois teachers will start the 1992-1993 school year with renewed enthusiasm and an arsenal of innovative educational resources derived from the Fermilab Summer Science Project. Scheduled for July 27 through August 14, the program provides junior high and middle school teachers with ideas and strategies for hands-on physical, life and earth science instruction.

The Summer Science Project offers training in three major areas: basic science content, effective teaching strategies and development of leadership skills. Teachers commute to Fermilab for three weeks, studying particle physics, astrophysics and superconductivity as well as prairie ecology. The instruction is "intensive, hands-on, and activity-oriented," said Kris Ciesemier (LS/Education Office). "The teachers do the same activities they will have their students do." Participants also build a robot, measure force on a roller coaster at Great America, and visit the University of Illinois at Chicago Animal Research Laboratory.

Instructors from business, industry and education enhance the teachers' learning experience. Among the presenters are Fermilab scientists, master teachers and scientists and educators from Amoco Research, the Roger Tory Petersen Institute, NASA and Lake Forest College.

Like many Fermilab education programs, the Summer Science Project is designed to disseminate information to a large number of educators, not just those who are fortunate enough to attend a Lab program. To accomplish this goal, each program participant develops a project, designing an educational unit, inservice program, or method for enhancing his or her science curriculum. Fermilab awards each participant a $100 grant, which must be matched by the teacher's school, to be spent on materials for the participant's project.

The Summer Science Project continues through all four seasons. Teachers attend follow-up sessions during the school year to help share new ideas, maintain their enthusiasm and keep in touch with friends and colleagues.

The program is funded by the National Science Foundation, sponsored by the Department of Energy Office of Energy Research and managed by the Fermilab Education Office.

## APGRA program trains next generation of accelerator physicists

The larger accelerators grow, the smaller the number of physicists who can design, construct and operate them shrinks.

It's a sad irony, but it's true. As big science gets bigger, crucial tools such as accelerators outgrow their college campus environments and migrate to national laboratories. Discouraged by the lack of research equipment, physics graduate students at even the best universities turn to nuclear, molecular, solid state—anything but accelerator physics.

To help alleviate the shortage of accelerator physicists, Fermilab has established the Accelerator Physics Graduate Research Appointment (APGRA) Program. Promising graduate students from around the country who have fulfilled their classroom requirements journey to Fermilab to study with the most advanced equipment in the world. After working for two to four years and completing a thesis, students graduate with a Ph.D. from their universities in the uncrowded field of accelerator physics.

According to APGRA Executive Committee Chairman **Gerald Jackson** (AD/Instrumentation), the purpose of the APGRA program is to educate the next generation of accelerator physicists necessary to complete and run projects such as the SSC, medical accelerators and synchrotron light sources. "We're losing people, and very few are coming in," Gerry said, adding that Fermilab alone has lost approximately 20 experienced accelerator physicists in the last few years. After Fermilab, Cornell University, which turns out one graduate every other year, is the next most productive institution with a self-contained graduate program in accelerator physics.

Fermilab's program began in 1985 under former Director Leon Lederman. Mike Syphers, a former University of Illinois at Chicago student now at SSC, earned the first Fermilab degree in 1988. Since Mike graduated, six more students have received their doctorates. Nine APGRA students are now at Fermilab, and all expect to graduate in the next two years.

The APGRA program seems to command great respect among the academic community. Most of the current students and graduates heard about the program through their professors, and were encouraged to apply. **Todd Satogata**, who hopes to receive his

Continued on page 7

Ph.D. this year, took a class at Northwestern University from Fermilab's own **Leo Michelotti** (AD/Theory), who encouraged Todd to apply. Another professor brought his nuclear physics class, of which Todd was a member, to Fermilab for a conference on deep inelastic scattering. Todd was impressed with what he saw, and decided to study at the Lab. Todd's Northwestern colleague, **Linda Klamp**, had an experience that was slightly less typical. She worked as an operator at Fermilab for eight years before deciding to pursue a Ph.D. When it came time to choose a research project, Linda returned to Fermilab. "It's worth staying here just to work with **Pat Colestock** (AD/Systems)," Linda said. "He's got a lot of insight and good advice."

Pat is Linda's thesis advisor. Students receive their thesis advisors during the application and acceptance process, which begins with a declaration of interest from the student. APGRA administrator **Roy Rubinstein** (Directorate) then requests transcripts, letters of recommendation and a curriculum vitae. At this point, said Gerry, "we're looking for reasonable grades, some sign the person could get the job done. We look for what you look for in any graduate student." Letters of recommendation carry great weight.

Roy forwards each student's application materials to the APGRA executive committee, which currently consists of Director **John Peoples**, Roy Rubinstein, Accelerator Division Head **Steve Holmes** and thesis advisors Pat Colestock, **Glenn Goderre** (AD/Systems), Gerry Jackson, and **David McGinnis** (AD/Systems). If the executive committee chooses, the student is invited to Fermilab for interviews with the executive committee and any other Accelerator Division physicists who might be interested in advising an APGRA student. The committee evaluates the student's competence and enthusiasm.

After an applicant passes the interview phase of the selection process, the physicist who is most interested in the student proposes a thesis topic. "The executive committee discusses the research topic," Gerry said. "It's a built-in means to make sure the research is relevant and beneficial to the Lab."

If the student agrees to the project, he or she begins work with the interested physicist as the thesis advisor. Nine students are now working with advisors, and Gerry believes the APGRA program is close to capacity. "The availability of advisors is a limiting factor," he said.

The executive committee has chosen to concentrate not on quantity but on quality. Towards this end, the committee meets monthly to evaluate students' progress. "We make sure the students don't stay too long, and see that the work done is of sufficient caliber to award a Ph.D.," Gerry said. In addition, the graduate students are required to give a seminar on their thesis topics once each year at an informal Users Center gatherings called the "Sacherer seminars."

In order to earn a doctorate degree, students must complete their thesis and defend it before the Fermilab committee and their university committee. Generally, the student's Fermilab thesis advisor also serves as a member of the university committee.

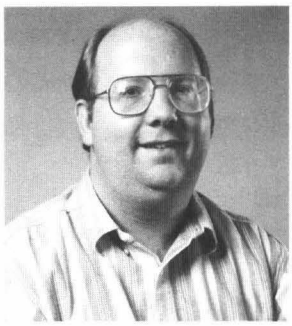
Current students and graduates seem pleased with the APGRA program. "I think they do a pretty good job here," said Linda, who is preparing a thesis on nonlinear wave mixing in coasting beams. "There is a small number of dedicated people who take a lot of time with us. There is a lot of cooperation and willingness to teach among the physicists, and I feel like I have a lot of support from the Lab."

**Katherine Harkay**, a Purdue University student who hopes to graduate this fall, points out the utility of a program specifically geared to train accelerator physicists. "It's an important way to get young people into the field," she said. "It's nice to train people in accelerator physics from the beginning, because some of the techniques are specific. It's been a great opportunity for me." Katherine, whose thesis is titled "Booster Longitudinal Instability," echoed several other students when she emphasized that a joint university-Fermilab Ph.D. can take much less time than a traditional university doctorate.

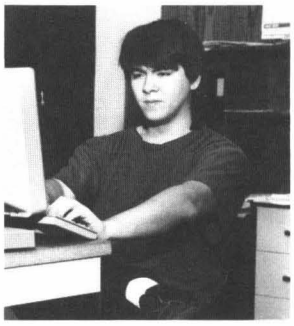
"Compared to a university, you can't beat it," said Todd. "It's worked wonderfully for me. A national lab has resources you can't get at a university." Todd's thesis data comes from Fermilab experiment E778 and concerns nonlinear dynamics. He appreciates the enthusiasm of Lab employees and likes the diversity of the people and topics. "There's definitely a feeling of community," he added.

Graduate John Palkovic, who attended the University of Wisconsin and now works at the SSC, enjoyed the Fermilab community as well. "I think Fermilab's a great lab," he said. "I liked just being in a community of high-energy physicists, and being able to discuss physics."

The APGRA program is near capacity, but Fermilab is succeeding in its effort to educate a new cadre of accelerator physicists. Todd found the Lab "invigorating" and "awe-inspiring" when he considered the great minds that have developed theories and run experiments here. He and his APGRA colleagues are the next generation that will carry Fermilab and other accelerator physics projects into the 21st century.



*Gerry Jackson*



*Todd Satogata*

*Linda Klamp*

*Katherine Harkay*

# Benefits note

## Results of long term care interest survey

Last April approximately 2350 long term care insurance interest letters were mailed to active employees. Because 21% of the employees indicated an interest in this type of group insurance, the Benefits Office has requested updated proposals from several major insurance companies, and a feasibility study of the human resource and payroll system will be done to see if a plan can be established in mid-1993.

# Rent a canoe

Take a relaxing canoe ride down a river, in a pond, around a lake or wherever you choose. The Activities Office offers canoes for rent. The cost is $5 per day per canoe. Life jackets are also available. Reservation and payment must be made in advance. To register, stop by the Activities Office located in WH1E, Monday through Friday from 8:30 a.m. to 5 p.m. For more information call Jean Guyer, x3126 or Sheri, x4544.

# Arts & Crafts Show approaches

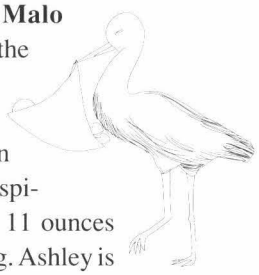
The Fermilab Arts & Crafts Show begins August 8 and continues through August 31. Applications to enter the show are available at the reception desk in the atrium of Wilson Hall. Applications must be mailed to Saundra Poces, MS 105, by Friday, July 31.

All Fermilab employees, visiting scientists, retired employees, contractors and their immediate families are encouraged to enter the exhibit.

# Voice your opinions

Do you have something to say? Let your senators and representatives know what you think about today's issues. An up-to-date list of all senators' and representatives' addresses and phone numbers is posted on the bulletin board in the Library (WH 3X). The list is also available elctronically by sending e-mail to FNAL::PGARRETT.

# Congratulations to



Bob and **Charrisse Malo** (BS/Accounts Payable) are the proud parents of a daughter, Ashley Jane, born April 20, 1992. Ashley, who was born at 3:44 a.m. at Hinsdale Hospital, weighed eight pounds, 11 ounces and measured 22 inches long. Ashley is the Malos' first child.

# Xerox 5080 engineering copier available

From July 20 through August 19, a Xerox 5080 engineering copier will be on free trial in VMS/ Duplicating. This is the updated version of the Xerox 2080 which has been in Duplicating since 1978.

The Xerox 5080 copier offers additional features including 200% enlargement in one step, multiple copying from 1 to 99, E size copying, and electronic editing capabilities such as cut and paste and image merge. Please take this opportunity to evaluate the equipment.

# July movie schedule announced

The Fermilab International Film Society presents movies from all over the world. Movies are screened in Ramsey Auditorium on Fridays at 8 p.m., and all foreign language films have English subtitles. Admission is $2.

The July film schedule is as follows:

Friday, July 17: *The Double Life of Veronique*: Two young women, both played by Irene Jacob, lead intertwined, yet unaware existences in a mysterious, poetic Polish-French co-production. Krzysztof Kieslowski, dir. 1991. (92 minutes).

Friday, July 31: *My Own Private Idaho:* Street hustlers portray unrequited love, abandonment, poverty and loss. Realized in vivid, moving images, radical transitions and a Shakespearean motif. Gus Van Sant, dir. U.S., 1991. (102 minutes).

# ES&H annual microwave oven survey

Are there any large cracks or gaping holes in the face shielding of the microwave oven in your work area? Is the microwave you use to heat up your lunch slowly taking its toll on you and your co-workers? Are there so many reheated leftovers stuck to the top and sides of your microwave that your popcorn tastes like meat loaf? If you suspect the answer to any of these questions is "yes," it is probably a good idea to have your on-site microwave oven checked for leakage.

The ES&H Section surveys microwave ovens at Fermilab annually to make sure that they do not present electrical, sanitation or radiation hazards. Each summer ES&H personnel use a microwave radiation leakage detector to make sure that no oven emits excessive microwave radiation. The ovens are checked for electrical grounding, and the conditions of the electrical cord and plug are examined. Finally, each oven's sanitary condition is evaluated. Any oven found to be unsafe for any reason is unplugged and tagged out until corrective action can be taken.

All microwaves on site are checked each summer, but this is not the only time that microwaves can be surveyed. Please contact ES&H, x4646, if you have a new microwave oven or an oven that you suspect could be unsafe.—*Jason Heiling*

# Daycamp has openings

The Fermilab summer daycamp currently has openings for Session III (August 3-August 21). Children must be between the ages of seven and 12. If interested, please call Sheri or Jean, x4544.

# Fermilab offers summer science fun for families

The staff of the Public Information Office, in conjunction with employee volunteers and presenters, is again offering summer Sunday tours in 1992. Summer Science Days at Fermilab, a new twist on the traditional site tours of the Laboratory, offers visitors a choice of three exciting ways to explore Fermilab.

On July 26, get ready for some "Serious Science." Visitors can chill out with live cryogenics and superconductivity demonstrations, or watch researchers as they piece together the most extensive map of the known universe on the Digital Sky Survey. If a particle collides in an accelerator, but no one saw it collide, did it make any new particles? Learn how physicists "see" matter so small as to defy human comprehension.

Who says science is boring? "Weird Science" on August 23 is the perfect way to get the kids in gear for another school year. Children of all ages can't help having fun when the Weird Scientists take the stage in Fermilab's Ramsey Auditorium for an afternoon of madcap science-magic demonstrations. The out-of-control chemistry teacher quartet, best known for their appearances on the "Late Night with David Letterman" show, perform homemade "experiments" that deliver learning and laughs.

On September 20, "Earth Science" day takes visitors back in time 150 years to pre-settlement days on the Illinois prairie. Vibrant tall grass prairie covered most of Illinois, but by the time of the Civil War the native grasslands had disappeared under farmers' plows. Take a walk through Fermilab's reconstructed prairie in full bloom and learn how environmentalists and just plain folks are bringing one of the largest prairie tracts in the country back to its former glory.

All Summer Science Days at Fermilab begin at 2 p.m. in Ramsey Auditorium and will last approximately two hours. Seating is limited for each program and reservations are required. Admission is free. To reserve your seat call or stop by the Public Information Office (x3351, WH1W) between 8:30 a.m. and 5 p.m. weekdays.

# The Annual Report is here

Fermilab's *1991 Annual Report* has arrived! Employees wishing to pick up a copy may do so at the Public Information Office (WH1W) or the Publications Office (WH6NW). Additional pick-up sites are located at the Feynman Computing Center, the Industrial Center Building, the Housing Office, CDF and DØ.

# Correction

**Carl Hebron** (RD/Operations) recently received his Master of Science degree from Aurora University, not his Bachelor of Science as reported in the last *Ferminews*. Carl graduated with a 3.8 cumulative grade point average.

# Harper's index

Number of inches the weed Polygonum perfoliatum can grow in a day: 6.

Number of states in which it has been found: 6.

# Quality corner

If you have a suggestion on how to improve the quality, efficiency, reliability or effectiveness of a Laboratory service or operation, please send it to Mark Bodnarczuk, MS 200 or Bitnet Bodnarczuk@FNAL.

# Classified ads

## Vehicles

1986 Mitsubishi Mirage. 2 doors, gold, running fine. 67k. $1200 obo. Call 708-305-8633 after 7/23/92.

1988 Ford Bronco II XL, 4 x 4 with "sport package." Black with red interior, looks and runs great, low mi., a/c/, 5-speed, power windows and locks, AM/FM cassette & more. Asking $8750. Call Tim, x3541.

1949 Studebaker pickup truck, rough condition, $250. Call 815-628-7201.

1979 Camaro Berlinetta, P.S., P.B., AC, V8-305 cu. in., stereo w/equalizer, 96,900 mi., dark blue, looks cool. $1550 obo. Call Russ, x2888 or 815-393-3314.

## Miscellaneous

Large capacity GE electric dryer with power cord. Very good condition, $175 obo. Call x4501 or 708-983-7452 or FNAL::YANG.

6-drawer wooden desk, $100. Super single waterbed with 3-drawer pedestal, $75. Combination L-shaped day bed with 2 twin beds and end table, $100 obo. Call Tim, x3377 8-4:30.

Ladies' pendant: blue topaz w/cut diamonds set in 14k yellow gold link chain. Prof. appraised at $200. Ladies' Geneva diamond watch, needs new band, $50. Lakewood space heater, sealed

Continued column 2

# Nalrec news

## Golf outing:

The first annual Nalrec golf outing takes place July 23 at Palmer Hills Golf Course in Iowa. The $67 fee includes snacks and beverages on a deluxe motor coach, 18 holes of golf and an afternoon cruise on Casino Rock Island with complimentary deli-buffet and soft drinks (alcoholic drinks cost $1). Also covered are entertainment, a buffet dinner following the cruise and beverages on the trip home. Pick-up is at 5:30 a.m. at Wilson Hall. Registration deadline is July 14. Call Gary Smith, x3878.

## Great America trip:

The Six Flags over Great America family outing is scheduled for August 16, 10 a.m. to 10 p.m. The $22 fee includes an all-you-can-eat buffet luncheon. See posters or contact Jesse Guerra, x4305.

## Bears trips:

Nalrec is sponsoring the following trips to Chicago Bears games:

Bears v. New Orleans Saints—September 11-14. Cost is $429 per person and includes round trip air, three nights' hotel lodging, shuttle bus, game ticket, pre-game party and tour escort.

Bears v. Tampa Bay Buccaneers—November 13-16. Cost is $399 per person and includes round trip air, three nights' hotel lodging, game ticket, pool party, tour escort plus other options.

Bears v. Detroit Lions—December 19-20. Cost is $119 per person and includes deluxe motor coach, snacks, hotel accommodations for one night, game ticket, pre-game party and tour escort.

Questions? Call Jesse Guerra, x4305.

## Branson music jamboree:

Watch for posters advertising the Branson Music Jamboree, a five-day, four-night trip offered November 4-8, 11-15 or 18-22. Cost is $419 double accommodations, $499 single accommodations for a deluxe motor coach trip to Branson, Missouri. Five meals are included.

Tour highlights include a tour of the School of the Ozarks and trips to Silver Dollar City and Waltzing Waters. Travelers will see four country music shows, including the Baldknobbers Jamboree, Shoji Tabuchi Theater, Roy Clark Theater and Grand Palace Music Theater.

A $50 deposit is required to hold your spot. Final payment is due thirty days before date of departure. For more information, contact Jesse Guerra, x4305.

## Old Timers' Steak Fry and Family Picnic:

Mark August 14 on your calendar. The Old Timers' Steak Fry and Family Picnic, held from 5 to 10 p.m., is Nalrec's big event for the summer. There will be steaks and fixings and also hot dogs for the younger crowd. Entertainment will include rides, games, a dunk tank and a band.

# Classified ads continued

and oil-filled 600/900/1500W w/thermostat—manual and box included. Perfect for small office or child's room. Barely used, $50. Call Dallas, x3662 or 708-879-2787.

Set of Michelin tires, LX1 T215/70 R15, used. $120 obo. Call John Juneau, x3366.

1986 Team Fuji sport bike, Shimano 600 components & Mavic rims. 23" frame, 12-speed, $300 obo. Call Chris, x3931 or 708-978-8066.

2 Schwinn 12-speed bikes. "La Tour" model. $60 each. Call Lloyd, x2990, 708-879-1969.

Yashika 35mm camera with 50mm lens, $35 obo. Apple Imagewriter printer, $100 obo. Computer desk and hutch, $70 obo. Call Jim, 708-879-2787 or x3662.

0.45 carat Marquis cut diamond ring with accompanying gold ring. Appraised at $1600, will sell for $850 or reasonable offer. Call Mike x2479 (days) or 708-879-6095.

## Pets

Female huskie dog, spayed, has all shots, free to approved home. She kills chickens. Call 815-628-7201.

## Found

Man's class ring in gymnasium. Call Rich, x3081.



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