

# FermiNews

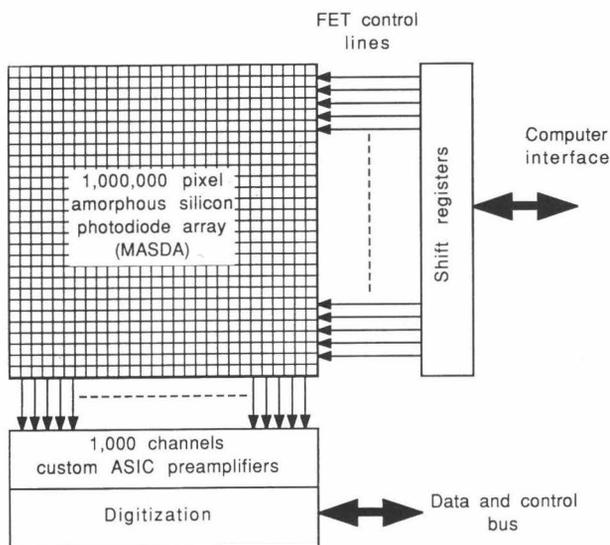
The Newsletter of the Fermi National Accelerator Laboratory

## FERMILAB ENTERS FIRST CRADA AGREEMENT

Fermilab has entered into its first Cooperative Research and Development Agreement, or CRADA. The agreement, approved by the Department of Energy April 13, was established between the Laboratory and the Univer-

sity of Michigan's Department of Radiation Oncology. It is a major milestone in Fermilab's effort to transfer technology developed at the Lab to universities and industry.

The "camera" itself will be based on a new technology being pioneered by the University of Michigan and the Xerox Corporation involving thin-film transistors and sensors deposited on a glass substrate. The complete imager will have approximately one million sensors (pixels). One thousand very small custom integrated circuit amplifiers, located close to the array, will then read out the data into a digitization system.



The diagram above shows the amorphous silicon detector array's front-end electronics. Fermilab's work centers on the custom design of the 1000 ASIC preamplifiers pictured at the bottom of the array.

CRADAs are agreements between national labs and non-federal entities in which both participants share personnel, facilities and expertise on specified R&D. Through this formal agreement, Fermilab will be working with the University of Michigan in the creation of a new type of x-ray "camera" that will be used in cancer radiation treatments. This device will make it possible for oncologists to see in real-time, through a computer screen, where a radiation beam is focused in a patient's body, and will verify how much of a radiation dose the patient receives.

It is the Laboratory's role to design a full custom integrated circuit with 16 to 32 preamplifiers on a 2 mm by 2mm chip that will read out the pixel array. RAY YAREMA and TOM ZIMMERMAN of the RD/EE Department are the principle investigators for the creation of the amplifier chip design. "We have developed similar integrated circuits for use in CDF and fixed-target experiments over the last four to five years," said Ray. "Many people in the medical field are in the same situation as the University of Michigan where small highly integrated electronics are required. We have the capability to help develop these items. Many people in this field simply do not have the resources to do it themselves." Ray added that the technology being developed through the agreement will likely have applications at Fermilab as well. "This array is very radiation hard. We are hoping to see if this could be

*continued to page four*

## FermiNews



Friday, May 20, 1994 • Volume 17, Number 9

|   |                        |
|---|------------------------|
| Swan Lake Erosion Project .....             | page two               |
| Particle Detectors at Fermilab .....        | page three             |
| Roads & Grounds Adopt Special Infants ..... | page five              |
| People & Events .....                       | pages six through nine |

# WHERE ARE MY KEYS?

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As part of the effort to protect government property, our Laboratory adheres to DOE guidelines on key control and identification card issuance.

As part of this effort, all Fermilab employees and visitors are responsible to control and safeguard keys issued to them and to carry current Fermilab identification. DOE requires all of its facilities to have a "badging" procedure. In addition to meeting DOE and Lab requirements, there are other uses and benefits to carrying a current Fermilab ID Card. The cards are needed to make withdrawals from the stockrooms and are used for access to the Recreation Center and to the site between 8 p.m. and 6 a.m.

It can also be beneficial to have a current locally recognized ID card when

dealing with businesses and institutions. The loss of the card deprives the employee of its benefits and possibly allows its use by unauthorized personnel. The Lab expends money and effort to issue and control keys and ID cards. The costs include not only the making of the key(s) and ID cards but also the approval and documentation process. If a key is lost, the cost increases. A security report is generated and the key database must be updated and in most cases the issuance process must be duplicated. The cost of replacing a lost key is estimated at \$10 per key. If the area the lost key unlocked is sensitive enough (i.e., an "area of security interest," high value area, or safety issue) the area may have to be re-keyed. If the area is a designated "property protection area" (there are currently seven at the Lab) the

area must immediately be re-keyed, or staffed 24 hours a day.

Statistics show that for 1993 there were a total of 70 Fermilab ID cards lost at an estimated replacement cost of \$4.50 each or \$315 for the year. There were a total of 85 building keys lost at an estimated replacement cost of \$850. There were also 43 keys found unsecured that were turned in to Security for safe keeping. In addition, it is estimated to have cost more than \$3,600 to re-key property protection areas affected by the loss of keys. These statistics were provided by Security to the Laboratory Protection Committee as part of the committee's effort to understand losses and reduce the resulting costs.—*Jill Hentges*

# SWAN LAKE EROSION CONTROL PROJECT COMPLETE

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A restoration project designed to reverse years of erosion damage at Swan Lake was completed earlier this month. Approximately 600 cubic yards of top

soil and 2,000 cubic yards of stone were added to the northwest shore of Swan Lake to restore the shoreline to its original size.

Planning said the amount of shore replaced measured anywhere from 30 feet to approximately 70 feet out into the water.



*Workers put the final touches on the Swan Lake project.*

According to S T E V E KRSTULOVICH of FESS/Eng. & Planning, erosion had removed the shoreline to the point where it was threatening Pine Street. "It's quite a surprise that that much soil disappeared," said Steve. CHUCK FEDEROWICZ of FESS/Eng. &

The work at Swan Lake is part of a project to improve Fermilab's industrial cold water system. Rebuilding the shorelines will reduce the amount of silt that enters Fermilab's piping, sprinkler and chiller systems through the on-site pond water. Restoration work on the shores of Bull Rush Pond was also completed earlier this year as the first step in the process of reducing silt build up.

Bull Rush Pond and Swan Lake were the most severely damaged areas. Other ponds at the Laboratory, including Casey's Pond, continue to be monitored for erosion damage.

# PARTICLE DETECTORS AT FERMILAB

Beams of protons and antiprotons collide at nearly the speed of light in Fermilab's Tevatron particle accelerator. Two hundred and fifty thousand times a second, protons and antiprotons burst into showers of secondary particles: quarks and electrons, muons, neutrinos, *B* mesons and *W* bosons...there are more than a hundred possibilities. The collisions take place inside each of two huge collider detectors on the accelerator ring. The detectors' job is to observe as many collisions as possible, to recognize and record the particles that come flying out and to preserve the information for later study.

By analyzing the stored data from the detectors, physicists make discoveries about the fundamental nature of matter and energy. Physicists at Fermilab are now studying data from CDF (the Collider Detector at Fermilab) and DZero, the Laboratory's two collider detectors, searching for evidence of collisions that may have produced the top quark, a

fundamental particle of matter.

## PORTRAIT OF A PARTICLE COLLISION

The detector's first task is to decide which of the quarter-million collisions that occur each second are worth recording. It would be impossible to save them all. Computers are instructed to weed out ho-hum events, registering only the most interesting collisions in detail for later analysis. Next, the detector must record as much information as possible about every particle in the events selected for recording—the particle's path, its energy and its charge. Because each kind of particle that flies off from a collision has its own distinctive behavior, the detector can use this information to identify the particle's characteristic electronic signature and determine that it was present at the scene of the collision. To create a complete picture of an event, a detector uses layers of different kinds of materials

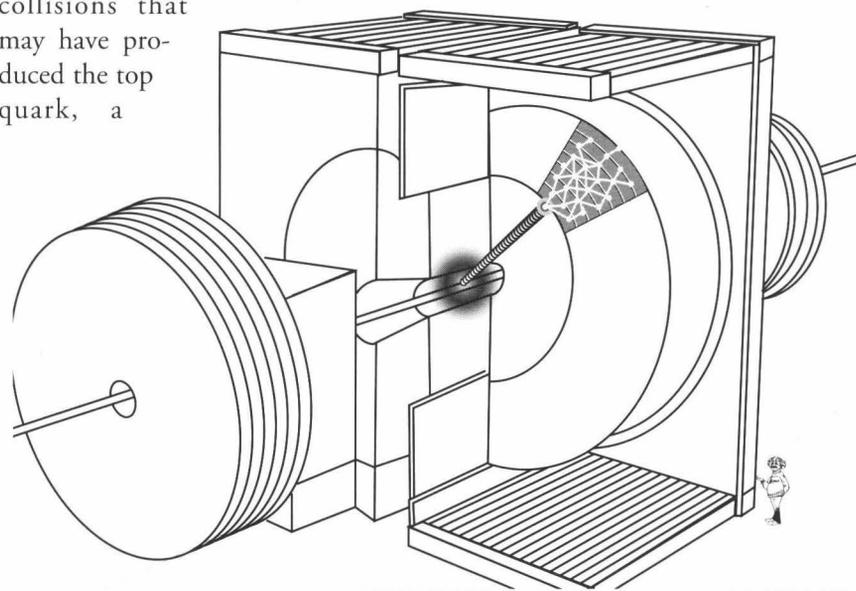
arranged around the central collision point.

Each layer is designed to collect and transmit a different kind of information about the moving particles that interact with the material it contains. Electronic signals transmit signals of the interactions to computers, tracing the paths of the particles, along with their energy and charge. Putting all these signals together, the detector builds up a kind of electronic photograph, as though the detector functioned as a many-ton camera, creating a portrait of each collision it records.

## OPEN 24 HOURS

To accomplish its task, a detector must contain enough layered materials for almost all the collision-born particles to interact with, and it must have enough electronic channels to read the information about the interactions to computers. Fermilab's detectors weigh 5,000 tons apiece; they are three stories high, crammed with the intricate circuitry for 100,000 electronic channels of information. Millions of lines of computer code control and monitor the detectors' operations. During collider operations at the Tevatron accelerator, control room crews operate the detector, taking eight hour shifts, 24 hours a day.

At the end of the collider run, when the data from billions of collisions have been recorded and stored, experimenters move the detector—all 5,000 tons—out of the accelerator ring and into the experiment's assembly hall, to make improvements that will upgrade its performance for the next collider run. For the moment, the detector's job is done. The job of the experiment collaboration, however, is only beginning. The experimenters will search the data their detector has delivered, analyzing the electronic portraits of particle collisions to move another step forward in the understanding of matter and energy.



*Fermilab's three-story CDF particle detector dwarfs even Einstein, whose picture is included to provide a sense of the detector's size. The detector's chambers are crammed with intricate layers of materials and electronics to detect and record the results of billions of high-speed collisions between protons and antiprotons at Fermilab's Tevatron particle accelerator.*

# EDUCATION OFFICE OFFERS SUMMER PROGRAMS

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In this, the second in a series of articles on Fermilab's Education Office summer programs, we examine the Middle School Visualization Symposium, a new program introduced by the office this year.

The Middle School Visualization Symposium: *Visualization, Connecting Computation, Geometry, Technology* is a three day symposium for middle school mathematics teachers. It emphasizes the use of computers and visualization techniques in order to give students the opportunity to "see" math, and therefore, to better understand it.

The symposium is coordinated by Terry Perciante, professor of mathematics at Wheaton College. Presenters will include Perciante, Evan M. Maletsky, professor of mathematics at Montclair

State College and Lee E. Yunker, chairperson of the mathematics department at West Chicago Community High School.

Participants will discuss the transition of middle-school students from a concrete stage of understanding to a conceptual stage. For example, a grade school student learning mathematical concepts needs to rely on a model of a cube to understand its properties. By the time a student reaches middle school, they are able to visualize the object without the aid of a physical model.

Discussions will enhance participants' ability to provide materials, activities and lesson outlines which address multiple approaches to learning mathematical concepts. These will include new

During the program, participants will collaborate to practice finding mathematical connections and new approaches to problem solving.

technologies such as graphing calculators and computers. In addition, participants will discuss the use of recently developed and highly visual areas of mathematics such as fractal geometry. During the program participants will collaborate to:

- Provide new and contemporary content into the curriculum
- Practice finding mathematical connections and new approaches to problem solving
- Incorporate projects, technology, group activities, experiments and traditional instruction to address the different ways students learn.

## METRIC EXHIBIT ON DISPLAY IN ATRIUM

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A flashy new metric exhibit touring DOE facilities this year has welcomed visitors and employees alike to Wilson Hall during part of May. "The Metric Me" exhibit, on loan from the Department of Energy and located near the atrium's front door, has done a brisk business in walk-by traffic from people interested in brushing up on the metric system.

Measuring in at eleven and one-half feet (that's 3.45 meters), the exhibit sports eight panels that tell the metric story. With the metric system in use in countries around the world, the time for the United States to make the change has never been more necessary — for

better communication and to compete in an increasingly metric workplace.

The exhibit covers four areas of measurement—mass, length, volume and temperature—and uses interactive elements to help make learning the metric system easy and fun. Try weighing yourself (in kilograms), measure your height (in meters), estimate your lung capacity (in liters) or read the air temperature (in degrees Celsius).

Hurry and check it out before "The Metric Me" exhibit ships off to the Brookhaven National Laboratory for its next appearance.

### CRADA

*continued from page one*

useful in the beamlines."

Director JOHN PEOPLES said in a letter to the Department of Radiation Oncology, "This is an outstanding opportunity to apply electronics technology, developed for fundamental research, in an entirely different area, and to also promulgate the skills that we have developed here. We are always hopeful that this development work will yield results that feed back into the Fermilab detector development program."

Ray added, "We're excited about doing this. It is nice to see technologies and resources at the Lab become useful to people outside, and, in this case, it's a clinical application that can make a difference in people's lives." ■

# ROADS & GROUNDS "ADOPT" SPECIAL INFANTS

It's not easy bringing up a baby—there are feedings at all hours, cries for food and bottle after bottle of formula. But what would you do if there were three, not just one, and each one weighed nearly 70 pounds, drank two and a half pints of formula at a feeding and grunted for its food? Well, the Fermilab Roads & Grounds Department knows exactly what to do.

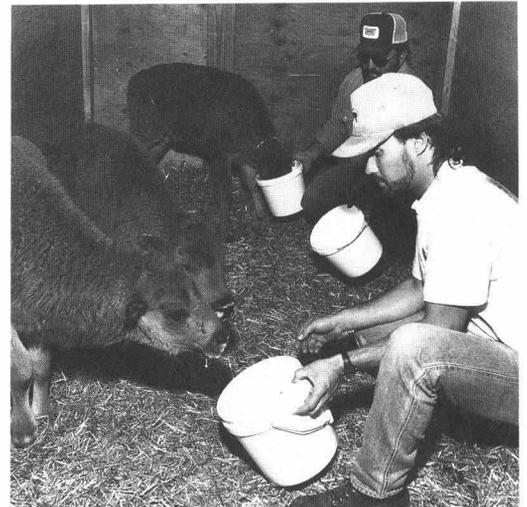
For the last four weeks the crew has been feeding and taking care of three orphaned buffalo calves born this spring. Two of the calves, both female, were orphaned when their mothers abandoned them immediately after birth, a somewhat common occurrence in bovines. The third calf, a male, was left without a mother when she died while giving birth. Unable to survive on their own, Roads & Grounds placed the calves in a pen to monitor their health and act as surrogate parents.

The calves, nicknamed Peggy Sue,

Norma Jean and Herbie, are now fed a warmed bovine milk substitute four times a day from large buckets. The Roads & Grounds crew is specially trained in how to feed the buffalo and look for signs of poor health.

All calves are in excellent health and have adapted well, said BOB HALL, head of Roads & Grounds. "The male and one of the females have retained some of their wildness and tend to avoid you," said Bob. "The other female, the youngest one of the group, however, is quite tame and follows the crew like a pup."

This is only the second time in 23 years of caring for the buffalo at Fermilab that this has happened. The last time a buffalo was orphaned was approximately 15 years ago. That buffalo was successfully released back into the herd when it was old enough. These three will be cared for until they are strong and large enough to defend themselves



*Groundskeepers Don Hanson (top) and John Plese hold the feed buckets while Norma Jean, Peggy Sue and Herbie quickly finish off their lunch.*

out in the herd. "There is a pecking order with buffalo," said Bob. "They have to be big enough to get away from others. You never know."

In the meantime, the three are spending their days sleeping and eating as most babies do and running in the corral for exercise. They are expected to be eating solid grains soon and should be joining the herd (and the 20 other calves born this spring) in approximately one month.

## IN THE KITCHEN WITH CHEZ LÉON CHEF TITA JENSEN

### PRICES DROP, LUNCH HOURS CHANGE AT CHEZ LÉON

Soup simmered in a pot on the stove, and the makings of a salad christened "Springtime in Korea" glistened in stainless steel bowls beside trays of sparkling strawberries. At 10 a.m. on a recent Wednesday morning, the inaugural day of the restaurant's new lunch menu, Chez Léon's chef, TITA JENSEN, peeled potatoes for the following night's potatoes dauphinoise and talked with a visitor about changes at the restaurant. Peeling was sporadic,

interrupted by a frequently ringing phone, as lunch reservations came in.

"We're trying something new at lunch-time—a lighter menu, a lower price, a more flexible schedule," Tita told the visitor, who had just booked a table for two. "A lot of people have only a short time for lunch. Now they can be served as quickly as they need."

Beginning on Wednesday, May 11, Chez Léon began opening for lunch from 11:30 to 1 p.m. Those with lunch reservations can now arrive at Chez

Léon anytime between those hours. "Don't hesitate to call for a reservation at the last minute," Tita says. "Call me personally at Chez Léon on Wednesday morning at x3524, and chances are we can find room for you. The only thing I really do ask is that people have the courtesy to call and cancel if they can't make it. It creates a real headache for us if they forget."

Chez Léon has dropped the price of the Wednesday lunch from \$13 to \$8. The new menu will typically include soup,

*continued to page eight*

# People Events

## GRUBBA TO RETIRE

After 20 years of service to the Laboratory CONSTANCE (CONNIE) GRUBBA is retiring May 31, 1994. Connie joined the Lab March 11, 1974 as an accountant in the Payroll Department. She served as assistant to former payroll manager Joanne Baaske and the current manager Ron Pahl.



In her retirement, Connie plans to become a counselor for widows and widowers who are grieving the loss of a spouse. "I'll be giving back to the Lord," said Connie. She also plans to keep busy with her grandchildren.

"It has been unique to work here," said Connie. "This is a place of great interest and I am proud to say I worked for Fermilab. The people were outstanding and it was a new learning experience every day. The (Payroll) department was always changing with new procedures, systems and forms. Every day was a new day at Fermilab."

## WEIGHT WATCHERS TO HOLD OPEN HOUSE

The North American Midwest Division of Weight Watchers will be holding an open house June 22 at noon in the WH15NW conference room for any employee interested in joining the Weight Watchers program. Men as well as women are encouraged to attend the open house to learn about the 10-week program and enroll.

Chris McGinnis of the Midwest Division said the Weight Watchers program is not just a food plan, but a way to make a lifestyle change. Chris herself

has lost 77 pounds on the program. In the current Weight Watchers' session at Fermilab, now in its fourth week, the 23 members have collectively lost 140 pounds.

The program costs \$120 for the 10-week session. If you are interested in joining, you may enroll at the open house or up to one week after in the Medical Office through MAE STROBEL. Classes will be held Wednesdays in the WH15NW conference room from noon until 1 p.m.

## IN MEMORIAM

Fermilab pioneer, FRANK T. COLE, passed away Thursday, May 5, 1994. Frank joined the Laboratory



in 1967 with I.D. number 13. Throughout his career at Fermilab, he made significant contributions to Laboratory programs.

In the early days of the Laboratory, from 1967-1971, he served as assistant director for technical affairs. He also served as head of several divisions throughout his tenure. Frank retired from the Laboratory September 30, 1988.

ARLENE LENNOX of Neutron Therapy worked closely with Frank for several years. She said, "Though Frank had been fighting lung cancer for several years, most of his associates were unaware of his poor state of health. His unwillingness to burden others with his problems was an inspiration to those of us who worked closely with him. Even more inspiring was the number of people who came to remember him at the memorial service, every one with a story about some way in which Frank had had a positive effect on their lives. He was a true gentleman and a humanitarian. He understood the importance of simple courtesy and kindness, qualities that are becoming rare in today's fast-paced, competitive society."

Frank is survived by two sons, two daughters, two granddaughters and a sister.

# HEALTH FAIR COMING TO LAB

The Wellness Works Committee is sponsoring Fermilab's second health fair Wednesday, June 8 in the Wilson Hall Atrium from 10 a.m. to 2 p.m. At the fair, local health care providers will present their programs and services through demonstrations, screenings and give-aways. Information on back care, massage therapy, biofeedback and diabetic testing will be among the material available. Hospital representatives will also be on hand to answer questions. All employees and their families are invited to attend. Supervisor permission is required of employees.

## NALWO NEWS

Nalwo invites everyone to a potluck at the Village Barn, tonight, May 20, from 5:30 p.m. to 8 p.m. Bring a dish to share or contribute \$3. Pizza and babysitting will be provided for children.

Nalwo is collecting international recipes from women and men associated with the Lab for a cookbook. If you have a recipe to offer or would like to help with this project, please contact Brenda Kirk at x3440, Selitha Raja at 708-305-7769 or Mady Newfield at 708-584-0825 or FNALV::MADYN.

## Harper's Index

Number of patents for hair-replacement technologies on file at the U.S. Patent Office: **114**

Ratio of the average speed of growth of human hair to the average speed of growth of Kentucky bluegrass: **1:7**

# EXHIBITORS WANTED

Once again there will be an arts and crafts exhibit in the 2nd Floor Art Gallery in Wilson Hall. The show will run from June 2 through June 30. The exhibit committee is soliciting both fine art and craftwork by any employee, visiting scientist, retired employee or contractor and any member of his or her immediate family. In the past, items

such as holograms, paintings, sculpture, ceramics, quilts, jewelry, baskets, masks and batik have been shown.

Applications to enter the show are available at the Wilson Hall Atrium front desk. For further information, call SAUNDRA POCES at x3211.

## JOSTLEIN TO PLAY IN NAPERVILLE BAND

HANS JOSTLEIN of the Physics Section invites all this summer to hear the Naperville Municipal Band in its Central Park Concert Series. Hans has been a member of the band for over 10 years

playing the bass clarinet and sousaphone. Concerts will be held at 7:45 p.m. every Thursday evening from June 9 to August 25 at the park.

**"I'd been working night and day. When I wasn't on shift I was doing analysis. Suddenly, I realized weeks had passed since we'd had dinner together. I called home.**

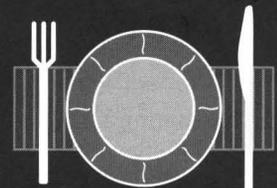
**"It's Thursday," I said. "Can you find a sitter and meet me at Chez Léon?"**

**"Sure," he said. "I'd love to."**

***Chez Léon—Delicious things happen on Thursday.***

## Chez Léon Menu

Lunch (Wed) \$8.00 • Dinner (Thurs) \$20.00  
Reservations: x4512



Wednesday, May 25 • *Soup of day, Mediterranean chicken salad, chocolate cake w/ Creme Anglais*

Thursday, May 26 • *Garden salad; veal scallops w/capers, vermouth and dill; risiottto w/ porcini; vegetable of season; Gran Manier souffle*

# DAVENPORT RECEIVES OUTSTANDING FACULTY AWARD

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JIM DAVENPORT, on-site coordinator of Fermilab's Summer Internship Program in Science and Technology, was selected as a 1994 Outstanding Faculty Award recipient from the Commonwealth of Virginia Council of Higher Education March 8. Jim is professor and chairperson of the Department of Physics at Virginia State University. At the university, he led the faculty in creating a proposal to develop a laser research lab and has been

## CHEZ LEON

*continued from page five*

a main course and dessert. Wine is extra, but the meal includes iced tea, coffee and tea. Thursday night dinner prices will drop from \$23.50 to \$20 for a meal including a first course salad, entrée and dessert. The restaurant will offer à la carte dinner appetizers at an additional charge.

Why the changes? "I'm afraid some people may have the idea that Chez Léon is only for physicists," says Tita. "We do accept reservations from physicists, but we want everyone to come. We hope that dropping our prices a little and making our lunch schedule more flexible will help us appeal to more people."

The potatoes were nearly all peeled. Lunchtime approached. What, wondered the visitor, was the most challenging aspect of running this unique outpost of haute cuisine at a high-energy physics laboratory? "Coming up with a different menu every time, which I try to do, except when something is such a favorite that people ask for it again and again." For example? "People really like bouillabaise and fondues, so we repeat those. But the great thing about cooking at Chez Léon, and one of the main

noted for helping his department educate the greatest number of African-American physicists for Virginia. He has been involved with the Summer Internship Program sponsored by the Equal Opportunity Office at Fermilab since it began in 1971. He has visited Fermilab each summer since 1974 to help students.

The Outstanding Faculty Awards program is one way in which Virginia

reasons I love cooking here, is that people at Fermilab are willing to try anything. If they're not, I print it in a foreign language and they try it anyway."

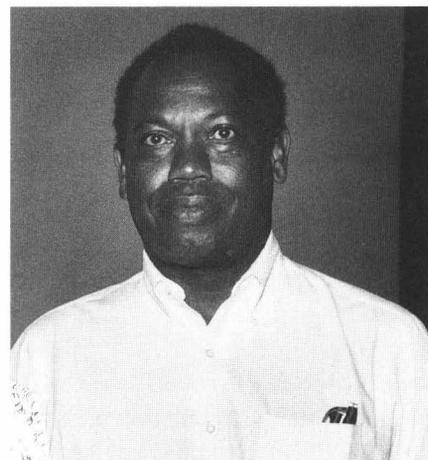
Chez Léon is open for lunch (\$8) on Wednesdays from 11:30 to 1 p.m. and for dinner (\$20) on Thursdays at 7 p.m.

Chef's assistant Bok Yung Ahn has worked at Chez Léon for two years; she shares her recipe for

### "Springtime in Korea" Salad

1/4 lb lean beef  
6 oz. transparent noodles  
1/2 medium carrot  
1/2 medium onion  
1 green pepper  
2 green onions  
5 dried shitake mushrooms  
3 T. cooking oil  
watercress

1. Cut meat into very narrow strips. Marinate 20 minutes in Bok Yung's Barbecue Sauce. (Recipe follows)
2. In separate bowls, soak mushrooms and noodles in water for 15 minutes.
3. Slice onion, carrot and green pepper into thin strips. Rinse mushrooms,



recognizes the teaching, research and public service being performed by faculty in Virginia's colleges and universities.

remove stems, slice into 1/8" strips.

4. Separately stir-fry the meats and vegetables in small amounts of oil over medium heat for one minute.

5. Bring 1 qt. water to a boil, add the noodles and cook for one minute. Rinse and drain.

6. Mix the cooked vegetables and noodles and add barbecue sauce. To serve, divide noodle mixture on four plates. Place strips of meat on top, drizzle additional sauce over meat. Garnish with watercress. Serves four.

### Bok Yung's Barbecue Sauce

2 medium apples, sliced  
2 C. soy sauce  
1/2 C. sake (rice wine)  
1/2 C. mirin (sweet sake)  
1/4 C. water  
3/4 C. sugar  
1 oz. sliced ginger  
6-8 cloves sliced garlic

Mix all ingredients in medium saucepan. Bring to a boil; boil 5 minutes. Lower heat; simmer 30 minutes. Let stand for 2 hours. Strain. Use 1 C. for 1 lb. meat. Use for meat and chicken.

## MOVIE SCHEDULE

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The Fermilab International Film Society presents movies from all over the world. Movies are shown at 8 p.m. Fridays in Ramsey Auditorium. All foreign films have English subtitles. Admission is \$3 for adults, \$.50 for children 12 and under. Coffee and cookies will be served on the second-floor mezzanine following each film.

■ June 10

*Double Indemnity*, Barbara Stanwyck and Fred MacMurray star as lovers plotting her husband's death in this film noir classic. Billy Wilder, director, U.S., 1944, 106 minutes.

## SURVEY TO ASSESS LAB SAFETY PROGRAM

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Fermilab employees will soon have the opportunity to help assess and improve the Lab's safety program efforts. The National Safety Council, a not-for-profit public service organization, is working with the Department of Energy to assist in improving its safety program department-wide. As part of that program, they will be conducting a survey at Fermilab that asks for employee feedback about the Lab's safety program, including its components and the way it is being operated. By participating, these employees will be able to express opinions and make observations that will improve safety.

The Council will be tabulating and interpreting the results of the survey. The survey should take no more than 15 minutes to complete. The surveys will arrive by interoffice mail and employees will be furnished a postage-paid reply envelope to return the form directly to the Council. Only about 10% of the staff, selected purely at random, will be asked to participate. Employees will be receiving surveys in the coming weeks and responses will remain entirely confidential. Results of the survey will be presented and assessed by Fermilab's upper management at a workshop following tabulation.

## FERMILAB LECTURE SERIES PRESENTS

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### MISSISSIPPI VALLEY RAGTIME TREBOR J. TICHENOR

Author, Radio Host, Performer,  
Winner of 1992 Scott Joplin Award  
Friday, June 17, 1994 at 8 p.m.

Since the age of 16, Trebor Tichenor has been working on preserving, honoring and authenticating the history of one of America's own musical heritages—ragtime. On Friday, June 17 Tichenor will present a lecture/performance on the history of this musical genre at Ramsey Auditorium at 8 p.m.

Ragtime originated in the late 19th century, probably from minstrel shows. Scott Joplin is considered the quintessential ragtime composer and musician, his Maple Leaf Rag being a perfect example of ragtime style. The music is stylistically quite distinctive, characterized by strong syncopation over an "um-pah" bass. Although mostly performed by solo piano, early dance bands

also performed this bouncy music.

Tichenor is nationally recognized as a leading authority on ragtime music. He has amassed what is arguably the largest collection of player piano rolls, old records and sheet music. In addition to his collections, Tichenor has long been a performer of ragtime music. He and his band, The Saint Louis Ragtimers, have twice appeared on the *Today Show* as well as having performed at numerous national festivals. His latest CD, *Tempus Ragorum*, is due out in June of this year. His writings on ragtime have appeared in all of the major journals, and in 1978 he co-authored *Rags and Ragtime* with David Jasen. He also hosted a weekly show called *Ragophile* on radio station KWMU and has been teaching a course on the history of ragtime at Washington University for over 20 years.

Tichenor obtained his music educa-

tion from private teachers, taking piano lessons from age five. He fell in love with ragtime as a teenager, deriving inspiration from Wally Rose, Knocky Parker, Bob Darch, Pete Clute, Lou Busch and Ralph Sutton. He began performing as a professional in 1960, co-founding the St. Louis Ragtimers in 1961, a group with whom he has recorded eight albums in addition to his four piano solo albums. With Russ Cassidy, he co-founded a quarterly publication called *The Ragtime Review* and he was the brainchild for the National Ragtime Festival, annually held aboard the Goldenrod Showboat on the St. Louis Riverfront.

Admission to Mississippi Valley Ragtime lecture/performance is \$3. For further information or telephone reservations, call xARTS weekdays between 9 a.m. and 4 p.m.

# CLASSIFIEDS

## ■ VEHICLES

1992 Toyota pickup, 13k miles, like new, sun roof, stereo AM/FM w/ cass., bedliner, \$7,800. Call James at x2883.

1989 Pontiac Sunbird, 2 door, blue/silver, AM/FM/cass., auto, AC, PS, PB, cruise, tilt steering, 38k miles, good cond., \$4,500. Call Gianfranco at x8403 or 708-653-2813. Leaving Fermilab soon, must sell.

1989 Honda Accord DX, white, PS, PB, AC, AM/FM/cass. stereo, excell. cond., \$7,600 o.b.o. Call Marge at x3800.

1988 Honda CRX-SI, black, loaded, very nice, \$5,500. Call Jason at 708-393-1876.

1987 Ford Escort, 3 door HB, 113K miles, AM/FM, new brakes, runs great, has 2 small dents & a couple of rusty spots, \$650 o.b.o. Call Acharya at x3590 or x4898.

## ■ MISCELLANEOUS

Moving, must sell: Queen size waterbed w/6 drawer pedestal, liner,

heater, mattress & pad, set of sheets, \$75; woman's GoreTex running outerwear, size small, \$25. Call Jim at x3349 or 708-810-1014.

35mm camera, Olympus OM-1, black body w/case, Olympus lenses: 50mm F1.8, 28mm F3.5 w/case & shade, 75-150mm F4.0 w/case, Cortland C-18 electronic flash, \$400. Call Ed Dijak at 708-690-1145 after 4 p.m.

Window unit air conditioner, very good condition, 5400 BTU, 2 sp. fan, thermostat, \$125. Call 708-778-6067 evenings 5-10 p.m.

John Deere 14HP tractor, about 20 yrs. old, w/48" cutting deck, power T/O front & rear, 48" snow blower attach., 48" rototiller attach., spare parts: wiring harness, light switch, xtra blades, manuals, \$750. Call Jack at 708-252-5309.

Computer, 1 yr. old, 66 Mhz DX2, EISA BUS, full tower case, 1 full height, 4 half height bays, 16MB RAM, one 3.5" 1.44MD floppy, one 5.25" 1.2MB floppy, Adaptec 1742A EISA SCSI controller, 500MB Seagate Wren V SCSI

hard disk, ATI ultra+ graphics card w/1MB RAM, bus mouse, SoundBlaster Pro sound card, came w/lemmings, indianapolis games, STW encyclopedia, talking calendar, etc., Supra 14.4 V.32bis fax/modem w/DOS fax software, 1 parallel, 2 serial, 1 game ports, CPU fan, DOS 6.2, Windows 3.1, lots of shareware games, Kiplinger's CA-Simply Money for Windows, \$2,100 o.b.o. Call 708-527-1282 in evening.

NAD 7225PE receiver, 20w per channel nominal 80w dynamic, AM/FM, 10 pre sets, CD, cassette, video, phono, pre-amp out, main in, \$250. Call Todd at x3003 or 312-326-6191.

## ■ LOST & FOUND

The Receiving Department has a computer cassette recorder P/N CCR-81 that a Lab employee mailed to Space Telescope Science Institute in Baltimore, MD. There was no addressee or return address marked. It has been mailed back to Receiving. Would the person this belongs to please call Tom Smith or Milton Martin at x3575.

## FermiNews

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submissions or ideas to  
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