# Ferminevs

#### FERMI NATIONAL ACCELERATOR LABORATORY

# **Tollestrup Named Distinguished Alumni**

Alvin Tollestrup (CDF), a major developer of the Fermilab Tevatron, has been chosen as California Institute of Technology's 1993 Distinguished Alumni Award recipient.



The award, the highest given by the institute, was presented to Alvin at the Alumni Seminar Day on May 15 in Pasadena, California. According to Cal Tech, it is given each year to an alumnus for high achievement in science, business or public service and in recognition of a particular achievement of conspicuous accomplishment.

Alvin graduated from Cal Tech in 1950 with a Ph.D. in low-energy nuclear physics. He took a position there after graduating, building the electron synchrotron which was made from a model magnet for the Bevatron. At the time, it was the highest energy synchrotron in the world, starting at 500 MeV and finally reaching 1300 MeV.

After helping to construct the synchrotron, he worked in the field of photon induced meson reactions, which was perhaps capped by the first measurement of the lifetime of the neutral pi meson using the "Primakoff Effect." During his sabbatical year at CERN, he was a leader of the team that made the first observations of the electron decay mode of the pion. Later, he carried out a series of experiments on the properties of antiprotons at the Brookhaven AGS. In particular, he was involved in the difficult search for lepton pair final states. In the work, a large number of two body hadron states following antiproton annihilation were observed. The "dip" in pbar p elastic scattering was observed for the first time giving early evidence for Regge exchange.

Alvin continued his interest in electromagnetic final states in a series of experiments at Fermilab, using a novel detector that he invented and constructed at Cal Tech. This detector was used in a series of photon-producing experiments that greatly illuminated electromagnetic processes involving hadrons.

In 1977, Alvin came to Fermilab and undertook responsibility for the design of superconducting magnets to be used in the Tevatron accelerator. He is now

generally acknowledged to be one of the world's leading experts on the subject of fast-pulsed superconducting magnets.

In 1988, he received the R.R. Wilson Prize from the American Physical Society in recognition of his contributions in the development of the Tevatron superconducting magnets.

In 1989, Alvin, along with Helen Edwards, Richard Lundy and Rich Orr, was awarded the National Medal of Technology by President George Bush for achievement in the design, construction and initial operation of the Tevatron. The National Medal of Technology is an honor awarded by the president to recognize those individuals or companies making exceptional contributions to the wellbeing of the nation through the development or application of technology. Alvin played a key role in the development of the Tevatron as manager of research and development. In the early stages of the effort, he provided the intellectual stimulation, vision, enthusiasm and expertise crucial to the instigation of this ambitious project. He successfully solved innumerable problems relating to material properties, component assembly and the precision measurement of magnet performance.

Alvin served as co-spokesperson for the CDF experiment until January, 1993.

# Lab to adopt new training program

Have you ever found yourself sitting in a training class and wondering why you were there? Did the material presented to you seem to be out of the realm of your job duties and responsibilities?

Due to the work of **Larry Thompson** of the ES&H Training Group, the chances that you'll attend another class where your training needs are not being met, will be, in many cases, eliminated.

Larry is in the process of creating Chapter 4010 of the Laboratory's ES&H Manual. This chapter will establish a new lab-wide training program that will significantly change the current training pro-Continued on page 2

# inside

Ed Dijak page 2

Arbor Day page 3

Announcements & Events page 4

> Scintillating Fiber Work page 6

Parking Regulations page 7

Ferminews is published by the Fermilab Publications Office. MS 107, P.O. Box 500 Batavia, IL 60510 708 840-3278 FNAL::TECHPUBS

The deadline for the Friday, June 4 issue of Ferminews is Wednesday, May 26. Please send your article submissions or ideas to the Publications Office.

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Department of Energy.



### **Training** continued

cesses of Laboratory employees.

Part of the effort in developing this training program is to determine who needs what training, said Larry. To do this needs assessment, the hazards or potential hazards people are exposed to on the job need to be identified, as well as the individual's professional development needs.

One of the encompassing features of this training program is that it not only accommodates ES&H training needs, but also professional needs, such as seminars and college class work.

To determine employee's needs, Larry has created an Individual Needs Assessment Survey. This survey will be distributed labwide within the next two weeks, following final approval of Chapter 4010. The six-page survey will be completed by the supervisor of any new or transferred employee or when an employee's job assignments or job hazards change. Eventually each employee's supervisor, or the person who is most familiar with an employee's working environment, will fill out a survey for his or her employees. "Essentially we want to come up with a training plan for every individual at the Lab," said Larry. "Everyone's training plan will be unique based on that person's needs and the person's knowledge or skill."

Using the survey, the Training Group will be able to plan training on an individual basis, added Larry. "That's a part of what we want to accomplish, rather than having someone take training that does not apply to them. The old approach was to identify training by position. We didn't like that because it didn't sit well with Fermilab's culture. What we like to do is identify the specific training needs of individuals. We can do that by using a needs assessment survey. I expect that the training plan based on this survey will change to reflect not only management's needs from an employee but also what the employee wants in order to improve."

Previously, said Larry, "each division and section was more or less on their own in attempting to identify what they thought employees needed. Some decided their people needed this training and some needed that. But who exactly and why was really

management calls. So we are trying to provide a uniform method across the Lab for identifying training needs and the development and implementation of training." L. Thompson



The training program itself has many unique aspects, said Larry. There are six essential phases of the program: analysis and design, development, implementation, evaluation and improvement. The whole plan incorporates DOE and OSHA regulations and complies with DOE's quality assurance requirements. The needs assessment survey is part of the development phase. From the needs assessment an individual training plan will be developed, then an employee will receive the training as the training becomes available. Once the training is completed, that information will be entered into that employee's training record. This is followed by the evaluation and improvement phases. In the improvement phase what was learned from the self-assessment will be fed back into the training process.

Larry said he expects that the entire training system will be in place and working smoothly within the next three to five years. "By 1998, the Laboratory will have adopted this program. I hope the transition will happen so smooth that people will think we have always done it this way. I hope this will be an accepted change."

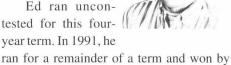
Larry added implementing such a program has been a long-time dream of his as a trainer/manager. "In theory, you read about these kinds of systems. Theoretically, you should train people to recognize the hazards in their area and you should only train or provide the skills and knowledge that they need on the job to do their job. It's a good experiment. If we are able to implement this we will have accomplished something at the Laboratory everyone can be proud of. That's quite an accomplishment."

Larry began as Training Group leader on July 2, 1992. He has worked at Martin Marietta and Commonwealth Edison. He has a bachelor's degree in psychology from the University of Nebraska, a master's of education degree from the University of Southern California and a certificate in quality assurance from Marquette University.

## **Ed Dijak elected** to park board

Ed Dijak (RD/Alignment) was re-elected as a commissioner on the Winfield Park District Board April 20.

Ed ran uncontested for this fouryear term. In 1991, he



carrying 63% of the vote. During this term, Ed will serve as secretary of the park board. Along with the other commissioners, he will be responsible for setting policy, organizing activities, plan-

ning parks and acquiring land. Ed, a resident of Winfield for nearly 20 years, became interested in park board activities when the board was developing property near his home about four years ago. Because of the close proximity of his house to the soon-to-be-developed property, Ed was keenly interested during the planning and development stages of the project. At that time, Ed and many other Winfield residents thought that the board was not being responsive to the concerns of the citizens, so Ed decided to take his involvement a step further and run for a seat on the park board.

Ed has worked at Fermilab for nearly 15 years and has been with the Alignment Group since 1985.

# **Golf League** outing planned

The Fermilab Golf League will be holding a June outing, June 25 at 12 noon at Wedgewood Golf Course, Rt. 59 and Canton Farm Road. Greens fees are \$27, which includes mandatory cart. A half-day of vacation is required. This outing will require prepaid foursomes by June 4. Call Jerry Dyche at x4887 or Vic Kuchler at x3643 to reserve a tee time. Times will be assigned in the order of paid foursomes received.

There will be a \$3 per person optional prize pool for long drive, closest to the pin, etc., on ten holes.

## Fermilab grows a little greener



Children from the Children's Center have fun getting their hands dirty planting a tree at the Arbor Day celebration.

This year's Arbor Day celebration was once again a success, drawing approximately 400 would-be horticulturists to the tree-planting festivities April 30.

Nearly 130 oak, hickory, walnut and pine trees were planted on the east and west shores of the A.E. Sea near the Fermilab Village. For their hard work, the volunteers, who included employees and children from the Fermilab Children's Center and their parents, received a tree sapling and a free hot dog lunch.

Arbor Day has been a tradition at the Laboratory for 20 years. Since 1970, nearly 5,200 trees have been planted on the site at

Arbor Day celebrations. In about the same time period, the Fermilab Roads and Grounds crew has planted some 50,500 trees.

The success of the 1993 Arbor Day celebration was due to the hard work of many individuals. In charge of organizing the event and insuring its smooth operation was the Arbor Day Committee of **Mike Becker** (FESS/Roads &

Grnds), **Brian Charles** (LS/PIO), **Marilyn Smith** (Directorate) and **Jim Hawtree** (RD/Res. Facil.). Nalrec Committee members **Paul Gentry** (TS/Magnt. Prod.), **Alan Petitt** 

(CD/Equip. Supt. Grp.), **Jesse Guerra** (RD/Thermal Sys.) and **Gary Smith** (RD/Eng.&Design) cooked and served the food to the volunteers.

Also lending a hand in the success of the day was the Roads and Grounds staff of Mike Becker, Susanne Freund, Bob Hall, Don Hanson, Jim Kalina, Gary Konen, Rich Kujath, Lonnie LaSourd, Kelli Linnert, Bob Lootens, John Plese, Dave Shemanske, Roger Slisz, Larry Thomas, Fred Torres, Steve Whiteaker and Clarence Winders. The crew helped the volunteers dig the holes for the trees and made sure they were properly planted.



I-r Tim Griffin and Sam McGhee from the Carpenter Shop do their part at the Arbor Day festivities.

## Science adventures at Lederman Center



Wondering what the kids are going to do this summer with all their free time? Puzzled about how to spend some real quality time as a family? Well, the Lederman Science Center might have a solution to this annual summer dilemma.

The Lederman Center is sponsoring Science Adventures at Fermilab, a series of summer classes for children, families and teachers.

The Children's Adventures include programs for youngsters ages five through 13. The programs feature recreational learning experiences on a variety of science topics. In the classes, children will learn the principles behind a working windmill; learn the basics of computer "morphing", use lasers and make holograms; investigate light and mirrors and learn the physics of gases and fluids.

Family Adventures are designed to encourage children and their adult guardian(s) to explore science together. Three classes will be offered this summer, *Bubble Festival*, *Seeing in a New Light* and *Dreams Come True*. The whole family can learn how to create beautiful bubble art, how light affects the way we perceive our world and learn about some of the basic aerospace technologies and the scientific principles behind them.

Starting in June, a variety of Teacher's Adventures are offered that are guaranteed to give teachers fresh and exciting ideas for the classroom. Adventures include *Quarks to Quasars*, where teachers explore the Lederman Center and *Particles and Prairies*, a hands-on look at the Fermilab prairie.

A pamphlet outlining all course offerings and registration materials is available from the Fermilab Education Office, MS777, x8259. The registration deadline for all the Science Adventures is one week prior to the scheduled adventure date.

#### Nairec news

Fermilab-Cougar Day at the Kane County Cougar Ball Park will be held Sunday, July 11, 1993 at 2 p.m. It will be a fun day at the old ball park. The first 1,000 fans will receive a special gift. Tickets are \$4 and are now available from Denise Bumbar at the WH Atrium front desk, x2787 or Charlotte Smith, x8640 or George Davidson, x3307. This game is with the Peoria Cubs.

Nalrec will be hosting a number of geta-a-ways this summer. On July 9, 1993 score a double eagle with a great golf and cruise package to Galena, Illinois. The package includes deluxe motor coach, 18 holes of golf at Lacoma Golf Club, lunch buffet at Eagle's Nest Restaurant, an afternoon cruise aboard the Silver Eagle Riverboat Casino, games, prizes and snacks on the bus and a tour escort. The cost is \$44.95 per person. The bus leaves Wilson Hall parking lot at 7 a.m. Registration cut off is June 29. For more information call Gary Smith at x3878 or Jesse Guerra at x4305.

Come to German Fest in Milwaukee, Wisconsin July 23 or July 24. Each trip will include deluxe motor coach, snacks on the bus, eight bands from Germany and Austria, display Hummels, genealogy section of the festival, home-made authentic food, a stop at the Kenosha Outlet mall and a professional tour escort. The cost per person is \$38. A \$6 discount is given to those 60 years and older (on Friday only). The bus leaves at 8:30 a.m. from Fermilab. For more information call Jesse at x4305.

Take a trip to the Mall of America in Bloomington, Minnesota. Nalrec will be sponsoring four three-day and two-night stays, July 9-11, August 20-22, September 17-19 and October 22-24. The cost per person is \$180 double occupancy and \$210 single occupancy. Tour highlights include a welcome reception, deluxe motor coach, Mall of America orientation tour, tour of the Twin Cities, two nights at the Budgetel Hotel or similar, baggage handling, Mystic Lake Gambling Casino, \$30 worth of coupons plus a shopping bag and a professional tour escort. Each trip is limited to 44 people. Contact Jesse for more information.

## **Nalwo activities**

The Nalwo Spring Tea, hosted by Nancy Peoples at her on-site home, brought together many women from the far corners of the Lab. Young and not so young, employed and connected to employees, residents and visitors, all enjoyed the congenial fellowship and delicious treats. Thank you to our hostess, to all the women who contributed food, to the cafeteria and security staff for their support, and to the Nalwo organizers for a delightful few hours to celebrate the arrival of spring at Fermilab.

Nalwo's May plans include the potluck and folk-dancing gala tonight, May 21, and an Indian cooking demonstration and luncheon at the Users' Center on Friday, May 28, from 10 a.m. until 1 p.m. Please call Selitha Raja at 708-665-5539 or Brenda Kirk at x3440 to register for the luncheon.

—Susan Mendelsohn

# Movie schedule announced

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.

May 21: *The Black Robe*, a 17th-century Jesuit missionary journeys into the far North wilderness to convert Huron tribes. Meticulous recreation of the Indian cultures. Bruce Beresford, director, Canada/Austria, 1991, 101 minutes.

June 4: Animation—Coming of Age, stories and impressions from childhood and adolescence are the focus of this beautiful and novel collection of animation from around the world. From Chicago Filmmakers collection, 104 minutes.

# Harper's Index

Average number of laps around the new White House jogging track required to burn off the calories in one Big Mac: 21.

Number of cardigan sweaters worn by Mr. Rogers on his TV show since 1968: 24.

## New copier in Duplicating



Although the new color copier is for walk-up use only, Al Johnson (I) and Cindy Arnold (r) will be happy to teach users how to operate the machine.

Visual Media Services now has a new Cannon Color Laser Copier available for walk-up use. The new copier replaces the older Cannon model. The machine has many improved features. "It can run larger volumes, is somewhat faster and has improved copy quality," said **Al Johnson** (LS/VMS). This copier also allows users to add texture to copies and to change and control colors. It is located in the Duplicating area in the Wilson Hall catacombes.

# Family life seminar coming

The Fermilab Wellness Committee along with LSSI Counseling Services is sponsoring a Family Life Education Series seminar "Substance Abuse Prevention and the Family," Monday, May 24, 1993 at 7 p.m. in Ramsey Auditorium.

The seminar will be presented by Bill Hovsepian of Glen Oaks Hospital and Medical Center. He will address identifying signs and symptoms of substance abuse, learning the factors that can lead to substance abuse and learning how to drug-proof your family.

A children's event will be held for children ages six through 10 at LSSI's office in Batavia for parents wishing to attend the seminar. Please call 708-879-7266 to register your child.

# **Announcing the Fermilab Summer Series 1993**

#### Accordion Showcase - Ostroushko, Magraw & Schmidt - Fairfield Four

Last year's Summer Series was a smashing success, and Fermilab audiences can look forward to another summer filled with diverse offerings from the Fermilab Arts Series. Tickets can be purchased as singles or as a series, giving you first pick at the best seats as well as financial savings.

Cost for the series is \$27. Single ticket prices are listed below. For further information or reservations, call 708-840-ARTS weekdays from 9 a.m. to 4 p.m. At other times an answering machine will give you information and a means of placing orders.

#### Accordion showcase

Saturday, June 5, 1993 - \$10

Accordion music from around the world will have your toes tapping as the Fermilab Arts Series brings a diverse sampling of music produced by the squeezebox. Ireland's Sharon Shannon, at the young age of 23, is one of the brightest young folk stars in her native country. Considered an accordion virtuoso, she has attracted enormous critical and popular attention in her native Ireland and around the world. Sharon Shannon will be joined by an acoustic trio of bass, fiddle and guitar. Eddy Le Jeune inherited some big boots to fill as the son of legendary Cajun accordion player Iry Le Jeune. Now Eddy has affirmed his notable place in the world of Cajun music with his own band, The Morse Playboys, as well as in his frequent collaborations with D.L. Menard. Eddy Le Jeune gives us some classic Cajun house music, pure and simple. The Showcase rounds out with accordion and violin music from Eastern Europe performed by Djula & Jovan.

#### Peter Ostroushko, Dean Magraw and Claudia Schmidt

Saturday, July 17, 1993 - \$9

Regarded as one of the finest mandolinists and fiddlers in acoustic music, Peter Ostroushko has made his mark in a variety of genres. He has played lead ukulele with the Minnesota Symphony under the direction of Sir Neville Mariner, recorded an uncredited mandolin set on Bob Dylan's Blood on the Tracks and performed numerous times on A Prairie Home Companion where he also served as music director. He will be joined by his frequent partner, guitarist Dean Magraw. Magraw's exquisite guitar playing is first rate, drawing on his experience as a jazz guitarist as well his wide-ranging activities in various kinds of ethnic music. Claudia Schmidt is back after a popular 1988 appearance in a Fermilab Folk Showcase. She too was a popular performer on A Prairie Home Companion presenting her own blend of music that mingles traditional balladry with blues, tin pan alley with wailing jazz. Her recordings have been among the most popular played on public radio.

# Fairfield Four with the Gospel Harmonettes

Saturday, August 21, 1993 - \$9

There have been many great gospel singing groups to come out of the South throughout the last 100 years, but probably none has been so influential as the Fairfield Four. In 1942, national recognition came to the young gospel group when they won a promotional contest that offered an appearance on Nashville's WLAC. This broadcast proved so popular that for 10 years, five days a week, the group remained on the air, reaching almost every home in the U.S. Today two of the original members remain in the quartet. The Fairfield Four has been honored twice by Carnegie Hall, appeared at the New Orleans Jazz and Heritage Festival, The Smithsonian Institution's Festival of American Folklife and the Lincoln Center's Folk and Heritage Festival. In 1989, the group was awarded National Heritage Fellowships by the National Endowment of the Arts. The Fairfield Four reached a new young audience recently during their tour with Lyle Lovette. The Fairfield Four will be joined by Gospel Harmonettes of Demoplis, Alabama. These four women have been creating exquisite harmonies together since 1974.

#### **Discounts available at Activities Office**

#### **Great America**

Available in the Activities Office, WH15W, pamphlet rack, the Six Flags V.I.P. card. Keep this card for season-long savings which include:

- Buy-one, get-one-free on any Tuesday from May 18-June 29.
- Best buy-get any two days for the price of a one-day, full-price adult admission ticket.
- Save \$4 off each one-day, full-price adult admission, April 18-Oct. 31.
- Twicket-visit 2 consecutive operating days and your second day is nearly free.

#### **Wisconsin Dells**

Wisconsin Dells Family Fun Vacation Discount Card.

Present this card and you will receive a 20% savings on the general admission to any or all of the following attractions: Tommy Bartlett's Thrill Show, Tommy Bartlett's Robot World & Exploratory, Noah's Ark, Riverview Park & Waterworld, Lower Dells Boats and Pirates' Cove Golf.

Also available from the pamphlet rack is a card good for a 33% discount on Dells Greyhound Park.

Cards available in the Activities Office pamphlet rack.

# Employee photo service

Going on vacation? Pick up an Employee Photo Service envelope and enjoy the luxury of having your film developed and waiting for you at home when you return.

Simply place your film in the postage free film processing envelope and within 24 hours after it is received, your photos will be on their way back to you for just the cost of developing your film. Check it out in the Activities Office pamphlet rack.

**Ferminews** 

# Lab developing scintillating fiber technology

High-energy-physics components and devices of the future are being developed today in small labs all over the Fermilab site. These detectors, like the Village laboratories where some of them are assembled, are small and colorful. Collectively, many of the detectors share the vibrant, light-conducting, scintillator material that may soon be needed to detect particle interactions as accelerator advances allow physicists to drive collision energies and interaction rates higher and higher.

At the heart of much of this work is scintillating fiber, a lightweight material made of polystyrene containing special dyes. Scintillating material in the form of thin sheets has been used for many years in high-energy physics; the novelty here is that it is in the form of fibers sometimes less than 1mm in diameter.

Scintillating fibers are being developed as solutions for at least two types of detector problems. One problem is measuring the trajectory of particles produced in high-energy collisions. The wire-chambers used at present use the electrical signals generated on thin wires to detect the passage of charged particles. If the flux of particles passing by the wires is too great, however, such chambers will not work. A possible solution is to use sheets of scintillating fibers in which the particles produce pulses of light that are transmitted down the fibers to a photon detector. By having several such sheets and identifying which fibers gave signals, it is possible to map out the particles' trajectories.

A second application for scintillating fibers is in calorimetry. Collider experiments in particular have a problem but this problem occurs in fixed-target experiments too; experimenters want to surround the collision region completely with detectors to measure the energy flow of all the particles produced in an interaction. Simple, but the experiments need to get the signals from the inside of their apparatus to the outside using as little space as possible for the signal wires. Scintillating fibers can perform this task, picking up and carrying the light signals from pieces of scintillator inside the detec-



Wanda Newby positions scintillating fibers to a Visible Light Photon Counter.

tors to photomultipliers outside, using a minimum of space.

Beginning under the leadership of **Dan Green** (now head of the SDC at Fermilab) and continued by the present management, the Physics Department has developed facilities to help support this important and promising area of research and development. Originally under Jon Blomquist and now under Chuck Serritella (Physics Department), a group of five technicians at Lab 8 in the village works on cutting large sheets of scintillator into "tiles" and routing grooves into these tiles to embed the scintillating fibers. The projects range from simple and small (a few inches square with straight lines) to complex. The present champion is the CDF "megatile" being assembled for the CDF endplug upgrade under the overall direction of Peter Limon (Research Divi-

In the KTeV photon veto project, there will be about 2,000 tiles. Each is 1/8 of an inch thick, about the size of a cutting board and has many intricate grooves routed into it to allow the strands of scintillating fiber to run through its length. Precisely routing the 0.83mm diameter keyhole-shape grooves into the tile is done through computer-aided design software. The pattern is first created on a computer and then transferred to the room-sized routing machines that carve the tile. "Anything that you can draw, you should be able to cut," Chuck said. Within about two hours, a perfect tile emerges, complete with burr-free grooves and bolt holes routed to within the machine's tolerance of  $\pm$  .002 of an inch.

Into the grooves in the KTeV tiles go the scintillating fibers. There is quite some technology associated with the preparation of the fibers, too. A machine, that looks like a Gatling gun, designed by Carl Lindenmeyer (Research Division) and built by John Korienek (Physics Department) and Don Szarzinski (Technical Support) uses a diamond-cutting wheel to cut the fibers and make flat surfaces at one end, that are then coated with aluminum. Coating with aluminum makes the end of the fiber act like a mirror. Eileen Hahn and Lauren (Renee) Jones (both Physics Department) perform this stage of the scintillating fiber assembly process in Lab 7 using the sputtering facility designed by Hans Jostlein (Physics Department). The fibers are sputtered in bundles of 2,000 and so far 8,000 of the 30,000 fibers required have been coated.

Next door in Lab 6, **Karen Kephart** (Physics Department) is ready to begin assembling the tiles and fibers into detector components. When finished, Karen and her crew will have built six complete counters composed of 24 alternating layers of scintillator tile and 1/8 inch thick lead. The counters are shaped like a donut and are up to 6 feet across. Out of each counter will stream almost 5,000 scintillating fibers. "We have the fibers for the first counter polished and ready to go," Karen said. "Within a couple of weeks, the tiles will have the fibers inserted, and assembly of the first unit should begin around June 1."

At the other end of Lab 6, in a specially assembled clean-room Alan Bross (Research Division) is leading a team developing a test of scintillating fibers for tracking using a new type of solid state light detector called the VLPC - Visible Light Photon Counter. Muzaffer Atac (Research Division) has been involved in the conceptualization and application of VLPCs to high-energy physics since 1987. "It's the future of tracking, either at Fermilab, the SSC or in Europe at the LHC," Muzaffer said. "The rate capability is beyond current tracking technology." Wanda Newby (Physics Department) undertook the task of mating the VLPCs to the eight 0.83mm diameter scintillating fibers. Using a soldering gun with a head the size of a pinpoint and Continued on page 7

# Security working to enforce parking regulations

Cars that are improperly parked at Fermilab are ticketed. Those parked in such a manner as to cause a traffic hazard or safety risk are towed.

The Security Department conducts these operations to enforce parking rules and limitations at the Laboratory. These efforts are intended to benefit the Laboratory by accomplishing the following objectives:

#### Safety:

The most important objective is to contribute to the safety of all persons by keeping emergency lanes and spaces open and available for emergency response. All zones that are marked with yellow striping, or marked as emergency zones with signs, have been designated as critical to the emergency response process. Traffic lanes are similarly critical. When employees or visitors park in those areas, they may inhibit rapid travel, parking or access to building entrances by the ambulance, fire trucks or security vehicles. The Laboratory needs to allow for snow plowing in the winter, again for safety. This is impossible to do efficiently if vehicles are parked for long periods in parking

#### • Clear delivery zones and access lanes:

Another important objective is to comply with requests from building managers and Division/Sections management to keep delivery zones and certain access lanes open and available. Deliveries of everything from mail to cryogenic gases depend upon space being available to maneuver all types of vehicles, including large tanker trucks.

#### Available reserved parking:

It is also important to maintain limited, restricted or designated parking for visitors, vendors, those who must drive from place to place at the Laboratory, VIPs and others. These are the drivers for whom the one and two hour parking spaces are intended, plus those specially designated parking spaces. Temporary reserved parking for special guests is often designated in the Wilson Hall horseshoe, at the request of the Director's Office.

#### Short-term only:

Nearly all parking at Fermilab, other than at residences, is commuter parking. There is a long-term parking area available in the Village, if Fermilab business requires that your car be left here more than 24 hours. Permits are required for long-term parking. They can be obtained from the Communications Center, Wilson Hall 1NE. Otherwise, you are expected to drive or remove your vehicle every day. No repair or rebuilding, nor parking of vehicles awaiting repair, is permitted at the Laboratory.

Security's response to violations of any of the foregoing starts with writing a Fermilab parking citation. The next step is most often

to try to contact the driver and ask that the vehicle be moved. Some vehicles are simply ticketed and left in place if they pose no hazard or risk to safety. Those that do pose a traffic hazard or safety risk are towed from that area by Fermilab Vehicle Maintenance's tow truck. They are removed to the McChesney Road hardstand area and require a Security supervisor to release them back to the driver/owner. This may not be a quick or convenient process, since the Security supervisors are often busy with other duties, and the offending driver must make his or her own way to where the vehicle is stored.

What then is the solution to the parking shortage? The answer is not to park improperly, intending to use the excuse "I only meant to park here for a minute." First, park only in proper, authorized parking spaces. Second, car pool or use alternative means of getting to work, such as bicycling or walking. Third, be prepared to park farther away from your work place and walk an extra hundred yards or so. There is almost always reasonable parking available somewhere, even if it is not exactly where you would like to have it. Finally, use the Fermilab taxi service for on-site business whenever possible. Please help us make Fermilab a safer and more enjoyable place to work. -Gary Verseput

# Science show big hit with kids

Right, students get a closeup demonstration of science during the 7th annual Wonders of Science show held in Ramsey Auditorium April 25. The students are being



assisted by a member of Weird Science, a group of high school teachers who put on the show each year. The show was sponsored by the Education Office. About 400 students and their parents attended the two showings held during the day. The show's aim is to stimulate children's curosity in science through fun and entertaining demonstations. "The show is more than entertainment," said **Dave Abler** (LS/Education). "The hope is that kids will come and get excited about science and use the science kits we give them in their classrooms."

#### Fibers continued

a microscope, Wanda meticulously fastened the pieces together into a working prototype.

"It takes a steady hand and a great deal of patience," Muzaffer said of Wanda. "She has both."

According to Physics Department Deputy Head **Stephen Pordes**, "Fermilab is probably the world center for the development of scintillating fiber technology. University researchers, Fermilab physicists and Fermilab technical facilities are all making major contributions. There is a real synergy among the various projects, and lessons and developments are quickly shared. We're proud to be part of this."—*Brian Charles* 



#### **Summer students**

With the coming of spring the Library welcomes students who will be visiting for the summer term. Summer students wishing to use the Fermilab Library must obtain Fermilab ID cards and fill out copies of the Library Patron Information Form that we have in the Library. These forms must be signed by Fermilab employees supervising the students. After the forms are completed they should be sent to the Library at MS 109 or brought to the Library at WH3X. We will then arrange for the circulation of materials with the student's ID cards.

#### New in the Library:

Perturbative QCD and Hadronic Interactions: Proceedings of the XXVIIth Rencontre de Moriond (12th Moriond Workshop). Gifsur-Yvette: Editions Frontieres, 1992. QC794.R292.1992v.2, locked cases.

Progress in Atomic Physics, Neutrinos and Gravitation: Proceedings of the XXVIIth Rencontre de Moriond (12th Moriond Workshop). QC794.8 .M825 1992, main.

Quantum Field Theory: a Modern Introduction. Michio Kaku. New York: Oxford U., 1993. QC174.45 .K34 1993, locked cases.

The Seven Habits of Highly Effective People: Restoring the Character Ethic. Stephen R. Covey. New York: Simon and Schuster, c1989. BF637.S8 C68 1989, locked cases.

Working With Congress: a Practical Guide for Scientists and Engineers. William G. Wells, Jr. Washington, D.C.: AAAS, c1992. Q149.U5 W46 1992, locked cases.

#### **Transparencies**

Les Rencontres de physique de la Vallee d'Aoste: Results and Perspectives in Particle Physics: La Thuile, March 7-13, 1993 / INFN. Transparencies Reference.

### Classified ads

#### Miscellaneous

**150 MB ESDI hard drive** with floppy/hard drive controller, \$150; **300 MB ESDI hard drive** with controller, \$300. Will install for nominal fee. Call Luke or Dorothy at 708-393-3239.

**Men's brown leather jacket** by Members Only, size 46, worn only twice, \$300. Call Shelley at x3324.

1975 **Butterfly sailboat**, yellow top, fiberglass hull, sail number 6361 (white Dacron), mahogony center board & tiller, 2 pc. aluminum mast, boom vang, boat cushions, aluminum kick-up rudder, boat (12 ft.) is light enough to car top, \$500. Contact Barb at x4136 or FNALV::BARB or 708-365-5275 evenings.

Pro Kennex Dominator **racquetball racquet** w/cover, \$10; Impulse 19" frame (mountain

style) **bicycle** (new), \$60; full-size **bike seat** (new), \$5; Bass Pro brand **belly boat** w/ tube, \$20; Sears 9-function solid-state **engine analyzer** w/instructions, \$30; **plexifairing** (clear), fits most motorcycles, w/quick disconnect mounting & cover, \$25; Sears 4 amp **battery charger**, \$10. Call Len Davis at x2238 or 708-892-4508 evenings.

Moving sale: leaving the state, everything must go: **furniture**, **dishes**, **kitchenware**, **stereo amplifier+tuner+speakers** (220 V, works with transformer), small **appliances**, kids and adults **clothes**, **toys**, etc. Call 708-879-7074.

#### Real estate

Warrenville **condo** for sale: 2 bdrm, finished basement, appliances, garage, very close to Lab, \$75,000; **house** in Batavia for rent, \$1,500/month + utilities. Close to Lab and town. Call Linda Even at 708-879-2309, if no answer, please leave message.

# 2-peat for the Dream Team

The 1992-93 Fermilab winter basketball season has come to a close and has left us with new winter league champions, the Dream Team (named after the U.S. Olympic basketball team). Although the Dream Team was the 1992 Fermilab Summer League champion and went undefeated that season, the team was unable to repeat this performance.

The Dream Team ended this season with a record of seven wins and eight losses.

In spite of this slow start, the team managed to gain momentum at the end of the season. Sponsored by Mary Cosgrove of the Warrenville White Hen Pantry, the Dream Team seemed to breeze through the playoffs with a 64-36 win over the Red Team in



The Dream Team, front row, I-r: L. Nelson, J. Ranson, R. Hagler. Second row, I-r: C. Penson, D. Meade, A. Wilson, M. Davidson, D. Wallace. Not pictured: S. Boyson.

the first round and a 56-36 victory over the Lakers in the second round.

The final game was a contest between the Dream Team and Nuthin' but Net. The Dream Team pulled out a 78-67 victory to become the league champions.

Members of the Dream Team were captain **Ryan Hagler** (AD/ Controls), **Stan Boyson** (TS/Engineering), **Mark Davidson** 

(TS/Engineering), Don Meade, Leonard Nelson (RD/Oper Dept), Carl Penson (TS/ Machine Shop), Jim Ranson (AD/Booster), Drew Wallace (AD/Mech Support) and Albert Wilson (CD/Distrib Comput).

Congratulations to the Dream Team on a good season.—Carl Penson