

Furlough Information

New furlough information, including an [up-to-date](#) Q&A section, appears on the [furlough Web pages](#) daily.

Layoff Information

The [latest layoff Q&A](#) has been updated with detailed information on layoff procedures. Visit the [layoff Web site](#) for more information.

Calendar

Monday, June 2

2:30 p.m.

Particle Astrophysics Seminar
- Curia II

Speaker: R. Carrigan, Fermilab
Title: Search for Dyson Spheres Using the IRAS Catalog

3:30 p.m.

DIRECTOR'S COFFEE
BREAK - 2nd Flr X-Over

4 p.m.

All Experimenters' Meeting -
Curia II

Special Topics: Tevatron Orbit Stabilization; CMS Installation and Commissioning

Tuesday, June 3

12 p.m.

[Summer Lecture Seminar](#) -

One West

Speaker: L. Lederman, Illinois Math and Science Academy/
Fermilab

Title: A Crack in the Mirror: A 36 Hour Experiment in Particle Physics

3:30 p.m.

DIRECTOR'S COFFEE
BREAK - 2nd Flr X-Over
THERE WILL BE NO
ACCELERATOR PHYSICS
AND TECHNOLOGY
SEMINAR TODAY

[Click here](#) for NALCAL,

Feature

Fermilab built parts to help GLAST search for dark matter



Artist rendering of the GLAST satellite. *Credit: NASA/Sonoma State University/Aurore Simonnet*

To look for keys to the mysteries of the universe, NASA will launch its Gamma-ray Large Area Space Telescope later this week. GLAST will survey the entire sky daily with the highest sensitivity yet. It will work more like a particle detector than a telescope, detecting the signals of high-energy gamma rays and tracking their cosmic origins.

Although not a GLAST collaborator, a Fermilab team manufactured a key component of GLAST's main instrument, the Large Area Telescope. Fermilab's CNC routing group within the Particle Physics Division's Technical Centers manufactured and finished sheets of plastic scintillator tiles that surround the heart of the GLAST detector.

Fermilab was chosen for this project because of its experience with manufacturing similar components for the Tevatron detectors, the MINOS neutrino detector and the LHC's CMS detector.

"The devil is in the details," said PPD Technical Centers Department Head Hogan Nguyen. "The handling of plastics is highly specialized in these groups. The teams are highly sought after for their ability to work with plastics."

Phyllis Deering, who retired two years ago, led a Fermilab team of specialized technicians who worked on parts for the GLAST mission between 2002 and 2004. Three subgroups

Safety Tip of the Week

Give safety a hand



Though versatile, the safe use of simple cutting blades relies entirely on the skill and vigilance of the user. Specialized cutting tools, on the other hand, tend to have safety features built into their design.

Hands represent one of the greatest tools a worker has, and one of the most vulnerable. At Fermilab, one-third of recordable work-related injuries occur to hands. In the last 24 years, that accounts for 933 cuts, sprains, pinches and repetitive-motion injuries.

Fingers and thumbs accounted for the majority of hand injuries at 62 percent. Palms and the back of the hand accounted for 24 percent, while wrists accounted for the remaining 18 percent. The major types of hand injuries were lacerations, at 40 percent, and contusions, at 10 percent.

Knife slips figured prominently in these injuries. Typically these injuries could have been avoided by the use of purpose-built cutting tools, such as wire strippers.

Gravity led to many other injuries. People got hurt when objects fell onto their hands or when they tried to catch a falling object. Wrists got strained when workers tried to break a fall with their hands. Simply reaching out without looking first sometimes caused lacerations because sharp edges were unexpectedly encountered.

Other dangers include edges of newly worked metals, interiors of metal cabinets and poor hand position. Forceful flexing of your wrists during repetitive tasks can aggravate a case of carpal tunnel syndrome.

a weekly calendar with links to additional information.

Weather

 **Mostly Cloudy**
68°/55°

[Extended Forecast](#)
[Weather at Fermilab](#)

Current Security Status

[Secon Level 3](#)

Wilson Hall Cafe

Monday, June 2

- Spicy beef & rice soup
- Corned beef Reuben
- Honey Dijon glazed pork loin
- Vegetable lasagna
- Chicken oriental wrap
- pineapple
- Assorted slice pizza
- Pacific Rim rice bowl

[Wilson Hall Cafe Menu](#)

Chez Leon

Wednesday, June 4 Lunch

- Salad nicoise with fresh grilled tuna
- Lemon cheese cake

Thursday, June 5 Dinner

- Green bean, feta & walnut salad
- Medallions of beef w/ cabernet sauce
- Roasted baby potatoes
- Steamed asparagus
- Lemon yogurt cake with strawberries & cream

[Chez Leon Menu](#)

Call x4598 to make your reservation.

Archives

were led by Deering, head of the CNC routing group; John Korienek, head of machine development; and Eileen Hahn, head of the Vacuum Thin Films group.

Korienek said the group often gets calls to create these very specialized parts. "Most of the time we're on the ground floor of experiments," he said.

The scintillator tiles make up the cosmic veto shield, or Anti Coincidence Detector, which identifies charged particles that are unimportant background. The machine development group manufactured and assembled the scintillator tiles to have an almost mirror-like finish, making them highly efficient to charged particles. The tiles generate light from the faint flashes of passing charged particles. That light then gets picked up by optical fibers, which were diamond cut and processed by Fermilab's thin films group. The fibers funnel the light to photo-multiplier tubes. These signals tell the telescope if the event was a charged particle, which on-board electronics should weed out as noise.

"All processes we do have tight quality controls and experience. You don't get the same high-quality mirroring in industry," Hahn said.

"NASA's GLAST was a chance to do something special. It's going up in the air. We're excited, because it is part of the American identity. NASA represents exploration. The U.S. identifies with NASA. To an ordinary citizen, who doesn't understand a lot of experiments, it's difficult to try to explain what you do. But when you say, 'Oh yeah, you see that NASA experiment going up? We're a part of that,' they understand," she added.

[Read more](#)

-- *Rhianna Wisniewski*

In the News

To avoid hand injuries, consider the following questions before you begin working.

- How could my hands get hurt in this activity?
- Are there gloves that I should be wearing?
- Am I using the best tools for the job?
- How should I react if something falls?
- Are there sharp edges I should watch out for?
- Is repetitive motion causing wrist discomfort?

[Safety Tip of the Week Archive](#)

In Memoriam

In Memoriam: Art Neubauer

Arthur William Neubauer, 78, a longtime resident of Downers Grove and a retired Fermilab employee passed away May 7, 2008 at Good Samaritan Hospital in Downers Grove.

Art retired from the Computing Division in 1994 after 25 years of service as an Electrical Engineer. His name and the name PREP (Physics Research Equipment Pool) were practically synonymous at the Lab. Art was the manager of PREP and the Instrument Repair Group in the Computing Division. Every person who installed or ran an experiment or test beam activity knew Art and valued his technical advice and his willingness to help locate some type of electronics and equipment to do the job.

Prior to working at Fermilab, Art was employed at the University of Chicago starting at age 18 and then at Argonne National Laboratory for 25 years. His top priorities were always his family and friends.

-- *Adam Walters*

Read the [Chicago Tribune obituary](#)

Accelerator Update

May 28-30

- Three stores provided 37 hours and 16 minutes of luminosity
- All Booster RF stations are up and running
- Cross Gallery Computer Room suffers from chilled water leak

[Read the Current Accelerator Update](#)

[Read the Early Bird Report](#)

[View the Tevatron Luminosity Charts](#)

[Fermilab Today](#)[Result of the Week](#)[Safety Tip of the Week](#)[ILC NewsLine](#)**Info**

Fermilab Today

is online at:

www.fnal.gov/today/

Send comments and suggestions to:

today@fnal.gov

Particle Physics: Does Fermilab have a future?

From *Science*, May 30, 2008

The United States's last particle physics lab finds itself in turmoil, with its current experiments soon to wind down and nothing under construction to replace them. Physicists wonder whether the lab--and particle physics in the United States--will survive

Like a magnet, particle physics drew David Mason when he was an undergraduate. "I was initially attracted by all the cool toys we play with," says the postdoc here at Fermi National Accelerator Laboratory. "Basically, everything we use we have to construct for ourselves because it's never been thought of before." Mason, 37, first worked in a lab as an undergrad at the University of Oregon, Eugene. In 1996, he came to Fermilab, whose bucolic 2750-hectare campus preserves a patch of quiet in the suburban sprawl 60 kilometers west of Chicago, as an Oregon graduate student to study particles called neutrinos. After finishing his doctorate 2 years ago, he signed on to collaborate on an experiment that will be done in Europe.

Now, Mason finds himself spending his savings to keep his young family afloat. Rocked by budget cuts late last year, Fermilab will soon lay off about 140 of 1950 staff members. In February, the lab instituted a rolling furlough that, until year's end, requires employees like Mason to take 1 week every 2 months as unpaid leave. The 25% cut in every other paycheck hurts, says Mason, whose wife stays home with his 2-year-old son.

Read the full version [here](#) (pdf file).

In the News

US particle physics spared the axe

From *New Scientist*, May 30, 2008

Concerns for the future of U.S. particle physics were allayed on Thursday. A panel of senior physicists reporting to the Department of Energy (DOE), the main U.S. funder for accelerator laboratories, said that it should be possible for the U.S. to commit to several cutting-edge projects including a new US-based linear collider, which had been threatened by budget cuts.

"We can't do everything we'd like to do, it can't

Announcements

Users' meeting June 4-5

Fermilab will host the annual Users' meeting on Wednesday, June 4, and Thursday, June 5. For more information or to register, visit the [Users' Meeting Web site](#).

Project X workshop June 5-6

Following the Users' Meeting June 5, Fermilab and the UEC will hold the third Workshop on Physics with a high-intensity proton source. The workshop begins with a town meeting in One West on the evening of Thursday, June 5, and continues the next day. A preliminary program and registration are [here](#).

Scottish Country Dancing Tuesday

Scottish Country Dancing will move to Ramsey Auditorium for the summer beginning Tuesday, June 3. Instruction begins at 7:30 p. m. and newcomers are always welcome. Most dances are fully taught and walked through, and you do not need to come with a partner. For more information call (630) 840-8194 or (630)584-0825 or [e-mail](#).

New Perspectives Conference June 3

The 2008 Annual New Perspectives Conference will take place on June 3 in conjunction with the Users' Meeting. The one-day conference offers talks given by and geared towards undergraduate, graduate and postdoctoral physicists. The conference includes a poster session. Applications for the poster session still are being accepted. Please [click here](#) for more information.

Heart risk screening June 3, 10

Wellness Works and Delnor-Community Hospital will offer a heart risk screening on Tuesday, June 3, and Tuesday, June 10. The assessment will take place by scheduled appointment between 6:30 a.m. and 10:45 a. m. for Fermilab employees in the EOC on the ground floor of Wilson Hall. Those interested can sign up on the [ES&H Web page](#).

Participants must fast for 12 hours but can drink water.

June 6 deadline for The University of Chicago Tuition Remission Program

The deadline for applying for the tuition remission program at The University of Chicago for the Summer 2008 quarter is June 6. For more information and enrollment forms, contact Nicole Gee at x3697 or visit the [Web site](#).

Fermi Research Alliance, LLC (FRA)

all go as quickly as it should, but we can do a great deal," says Mel Shochet from the University of Chicago. "Under all but the very worst scenario we will be able to make significant progress in all areas."

Particle physics is at a precarious crossroads in the U.S., as the hub of activity shifts from the US to Europe. The highest energy accelerator in the world, the Tevatron at Fermilab, will be superseded later this year by the Large Hadron Collider (LHC) at CERN, the European centre for particle physics near Geneva. The Tevatron will close in the next few years.

Continued support for U.S. scientists working at the LHC should be a major priority, the panel said at a meeting chaired by Shochet in Washington, D.C. on Thursday. U.S. researchers comprise the largest group from any single nation working at the LHC, with around half of US particle physicists involved in LHC collaborations.

[Read more](#)

retirement plan changes

The Summary Plan Description for the FRA Retirement Plan has been updated to reflect a major change to the plan: A terminated participant is not subject to the age and service requirement in order to be eligible for a cash withdrawal. You may elect a cash distribution from TIAA and CREF Retirement Annuities. Withdrawals from the TIAA Traditional Retirement Annuity accumulations are only possible using a Transfer Payout Annuity (TPA). If the accumulation is less than \$10,000, it would be provided in one lump sum. The Summary Plan Description for the Retirement Plan is posted on the [Benefits Web site](#) for your review.

[Additional Activities](#)