

Calendar

[Have a safe day!](#)

Monday, June 22

2:30 p.m.

[Particle Astrophysics Seminar](#)

- Curia II

Speaker: Arti Garg, Lawrence Livermore National Laboratory

Title: Preliminary Results from the SuperMACHO Survey

3:30 p.m.

DIRECTOR'S COFFEE

BREAK - 2nd Flr X-Over

THERE WILL BE NO ALL EXPERIMENTERS' MEETING THIS WEEK

Tuesday, June 23

12 p.m.

Summer Lecture Series - One West (NOTE LOCATION)

Speaker: Marcel Demarteau, Fermilab

Title: Particle Detectors

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, a weekly calendar with links to additional information.

Campaigns

[Take Five](#)

[Tune IT Up](#)

Weather

 Mostly sunny
89°/69°

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

Special Announcement

East gate closed today through Friday

From today through late afternoon on Friday, June 26, Fermilab's east entrance will be closed to allow Canadian National Railway to make repairs to the tracks and crossing in that area. All motor and bicycle traffic that normally enters through that gate will need to enter through the Pine or Wilson street gates on the west side. Check *Fermilab Today* for updates.

Feature

Cervando Castro: Steady hands and sharp eyes



Cervando Castro (left) watches the monitors and operates the remote crane control with technicians John Featherstone and Keith Anderson (center) for the NuMI experiment.

In a few weeks, Cervando Castro will use a remote control crane to change a key piece of equipment in Fermilab's neutrino program. He will be located behind several feet of concrete shielding at distances of up to 100 feet from the component. It's a job where steady hands and sharp eyes are essential.

"Cervando's very focused and very calm in high-pressure situations," said Kris Anderson, lead engineer for NuMI target hall operations. "We rely on him a lot."

As part of regular maintenance, Cervando will swap out the NuMI target, the piece of the experiment that helps to create neutrinos from protons. But, because the target sits directly in the beam path and becomes radioactive, Castro will use several video monitors and a remote crane control from behind shielding to do the job.

ES&H Tips of the Week - Cyber security



Passwords: Longer is stronger



Lock up your information with a strong password.

Have you ever wondered how easy it is to crack a password, and how it's done? Attack methods for cracking passwords include simple techniques such as guessing, especially if the attacker knows something about you such as your birthday

or your dog's name. So don't base your passwords on information someone might easily know about you. A slightly more sophisticated method is called a "dictionary attack." This method uses words straight out of the dictionary to see if they work as your password.

A "brute force" attack relies on trying every possible combination of characters, and in theory will always be successful given enough time. But if you choose a long enough password, the time required to run all the possible combinations becomes so long that it is not practical. "Rainbow tables," available in the hacking community, are a compilation of all the encrypted forms of passwords, so that it's only necessary to look up the original password once the encrypted form of the password is known. Simple four- or five-character passwords can be cracked in the few seconds it takes to return a result from the lookup. This technique also gets more difficult as the password length increases--another good reason to use a long password.

A recent Fermilab cybersecurity audit called out several applications at the lab that aren't enforcing password complexity that complies with current DOE requirements. Part of the [Tune IT Up](#) campaign calls for enforcing the required password complexity. Over the next months, the laboratory's central computing systems will begin enforcing more stringent password complexity requirements. To make that transition easier you can begin using more complex passwords:

Current Security Status

[Secon Level 3](#)

Wilson Hall Cafe

Monday, June 22

- French Quarter gumbo
- French dip w/horseradish cream sauce
- Santa Fe pork stew
- Country baked chicken
- *Spicy hot Greek wrap
- Assorted sliced pizza
- Sweet N' sour chicken w/egg roll

**Carb restricted alternative*

[Wilson Hall Cafe Menu](#)

Chez Leon

Wednesday, June 24

Lunch
- Southeast Asian grilled beef salad
- Pineapple flan

Thursday, June 25

Dinner
- Closed

[Chez Leon Menu](#)

Call x3524 to make your reservation.

Archives

[Fermilab Today](#)

[Result of the Week](#)

[Safety Tip of the Week](#)

[User University Profiles](#)

[ILC NewsLine](#)

Info

“Cervando has a lot of experience in the lab, he’s our main crane guy,” said Mike Andrews, NuMI shutdown coordinator.

Castro, who has a background in welding and auto mechanics, is the senior technician for the NuMI target hall. He assembles, installs and maintains equipment and parts for the experiment, a job he previously did in the mechanical support department for the Tevatron.

While assembly and maintenance are relatively commonplace for the 25-year laboratory veteran, Castro was thrilled about his new challenges and his vertical commute when he started at NuMI.

“The first couple of times I was pretty excited to go down 150 feet into the NuMI target hall,” Castro said.

Then, the diversity of tasks Castro’s job includes--from assembling very delicate pieces of equipments to moving large chunks of concrete--keep him challenged. The largest piece of equipment he has had to move with the crane weighed 50,000 pounds. His schedule keeps him busy too. As a NuMI technician, Castro has to make himself available day or night as his job requires.

“I’m willing to do that because I want help make this place run smoothly,” Castro said.

--Tia Jones

In the News

CERN reports on progress towards LHC restart

From *Interactions.org*, June 19, 2009

At the 151st session of the CERN Council today, CERN Director General Rolf Heuer confirmed that the Large Hadron Collider (LHC) remains on schedule for a restart this autumn, albeit about 2-3 weeks later than originally foreseen. Following the incident of 19 September 2008 that brought the LHC to a standstill, a great deal of work has been done to understand the causes of the incident and ensure that a similar incident cannot happen again.

“Many new tests have been developed,” said CERN’s Director for accelerators, Steve Myers. “That’s given us a wealth of information about the LHC splices, and confidence that we will be in good shape for running this year.”

1. Use at least 10 characters
2. Include letters, numbers and at least one special character (the # sign, for example)
3. Don’t use a number for the first or last character.

[Safety Tip of the Week Archive](#)

Shutdown Update

June 15-19

First five days of shutdown

- Neutron Therapy Facility treats patients
- Pbar - power was off on Thursday
- Linac, NTF and Electron Cooling personnel conduct studies

[Read the Current Accelerator Update](#)

[Read the Early Bird Report](#)

[View the Tevatron Luminosity Charts](#)

Announcements

Time and Labor Announcement

[Reminder: Changes to FTL system began this week](#)

[East lab gate closed June 22-26](#)

[Free upper body 30-minute workout - June 25](#)

[Bristol Renaissance Faire discount tickets](#)

[On-site housing-fall 2009/spring 2010](#)

[Six Flags Great America discount tickets](#)

[Pool memberships available in the Recreation Department](#)

[Argentine Tango classes through June 24](#)

[Conserve water: Support FNA with a rain barrel purchase](#)

[Fermi Kyuki-Do Martial Arts session begins June 22](#)

[Donors needed for Fermilab Blood Drive June 23 & 24. Give a pint - Get a quart of Oberweis Ice Cream](#)

[ACU car buying tips demonstration June 24](#)

Fermilab Today

is online at:

www.fnal.gov/today/

Send comments and suggestions to:

today@fnal.gov

Visit the Fermilab

[home page](#)

The root cause of the September incident was a faulty splice in the high-current superconducting cable between two magnets in LHC sector 3-4. New non-invasive techniques have been developed to investigate the splices, of which there are some 10,000 around the LHC ring, and determine whether they are safe for running or whether they need to be repaired. As part of this process, one more sector of the LHC, sector 4-5, is currently being warmed up. This will bring increased confidence that the splices are fully understood.

[Read more](#)

From Quantum Diaries

Shutdowns are busy times

On Monday, we began a 3-month planned shutdown of the accelerators for maintenance, upgrades and a little construction for future operation. Although we may not be delivering beam to the experiments, there is plenty of activity going



Ron Moore, a blogger for Quantum Diaries.

on around the Fermilab accelerator complex. The Accelerator Division “borrows” technicians from all over the lab to get all the work done.

For the Tevatron, maintenance is the biggest task. It has been 20 months since the last long shutdown ended and many items have accumulated on the to-do list.

[Read more](#)

[Taking Control of Stress - June 24](#)

[Environmental Safety and Health Fair - June 29](#)

[Volunteers needed for Fermilab Prairie Quadrat Study - June 30](#)

[Interaction Management and Performance Review courses scheduled for summer 2009](#)

[Discount for SciTech Summer Camps - July 6](#)

[MATLAB software tools 75 percent off for Fermilab - July 15](#)

[Intermediate/Advanced Python Programming July 22-24](#)

[Process piping \(ASME B31.3\) class offered in October](#)

[Additional Activities](#)

[Submit an announcement](#)