

Calendar

[Have a safe day!](#)

Monday, Sept. 14

2:30 p.m.

[Particle Astrophysics Seminar](#) - One

West

Speaker: Josh Frieman, Fermilab/
University of Chicago

Title: Constraining Dark Energy: First
Results from the SDSS-II Supernova
Survey

3:30 p.m.

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

4 p.m.

All Experimenters' Meeting - Curia II
Special Topic: CMS/LHC Report

Tuesday, September 15

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

 Sunny
82°/58°

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

Current Security Status

[Secon Level 3](#)

From *symmetry breaking*

Inventing a thingamajig for NuMI's "mission impossible"



Vladimir Sidorov, an Accelerator Division engineer, and Jerry Judd from the Particle Physics Division's Mechanical Support Department measure a piece of the thingamajig, a device created to help NuMI/MINOS collaborators replace a key piece of equipment.

Sometimes, it takes doing the nearly impossible to keep physics experiments running smoothly. It also takes a sense of humor. And a thingamajig.

Crews in Fermilab's NuMI/MINOS experiment recently extracted and replaced a difficult to access piece of equipment using a homemade device. They replaced the experiment's hadron monitor, a key piece of equipment that helps to align and monitor the beam quality.

In order for particles to get to the hadron monitor, protons enter the experiment, collide with a graphite target and then break apart. Another piece of equipment then focuses these resulting particles into a pipe, called the decay pipe, where the particles decay, or transform into other particles. The monitor is located in front of the decay pipe, an area where workers can't go and that is difficult for machines to access.

"The hadron monitor wasn't designed to be replaced, and now we have to replace it. This is a challenge," said NuMI Shutdown Coordinator Mike Andrews before the repair.

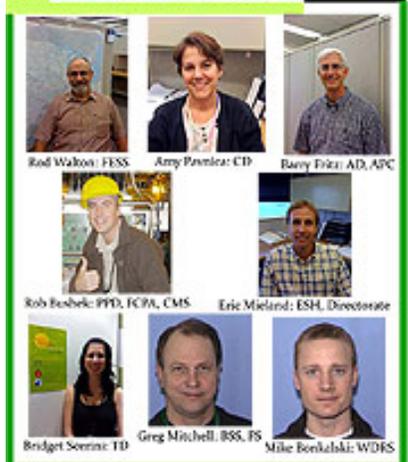
When problems started to exist with the hadron monitor two years ago, NuMI/MINOS collaborators solicited the help of an expert team of engineers and technicians from the accelerator and particle physics divisions to conceive, design, and

ES&H Tips of the Week - Environment



Environmental protection question? Contact your EO

ENVIRONMENTAL OFFICERS



Fermilab's Environmental Officers can help you determine if your work has an impact on the environment.

Fermilab has a strong history of interacting positively with our environment. We have more than 1,100 acres of restored natural Illinois prairie, conduct regular prairie burns to get rid of invasive plant species and rebuild natural habitats, such as the award-winning Nepese marsh on site.

To help maintain our natural resources, you need to know the impact your work has on the environment and work to minimize it. Do you know whom to talk to if you have a question about the environmental protection aspects of your work at Fermilab? Do your activities have the potential to pollute the water or air? Are you sure that the way you dispose of waste is appropriate? Even when you work in an office, do you use chemicals or other substances that must be treated as hazardous waste?

Answers to these questions are important and often complicated. Every division and section has an environmental officer, whose role is similar to the senior safety officer. Your environmental officer can help you to determine answers to your questions about environmental protection and coordinate any necessary actions with the ES&H Section. Fermilab environmental officers for each division, section and center and their contact information are listed below:

ES&H, DO	Eric Mieland	x2248
AD, APC	Barry Fritz	x2230
BSS, FI	Greg Mitchell	x8002
CD	Amy Pavnica	x8493

Wilson Hall Cafe
Monday, Sept. 14
 - French Quarter gumbo
 - French dip w/horseradish cream sauce
 - Santa Fe pork stew
 - Country baked chicken
 - Popcorn shrimp wrap
 - Assorted slice pizza
 - Sweet n' sour chicken w/egg roll

[Wilson Hall Cafe Menu](#)

Chez Leon

Wednesday, Sept. 16 Lunch
 - Northern Italian lasagna
 - Mixed green salad
 - Almond orange cake

Thursday, Sept. 17 Dinner
 - Beet and Roquefort salad w/walnuts
 - Chilean sea bass w/spicy red pepper sauce
 - Lemongrass rice
 - Sautéed spinach with garlic & lemon
 - Fresh fruit tart

[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

create a device that could remotely extract and replace the monitor.
 The answer was an Erector Set-looking device with no name. The one-of-a-kind 3,000-pound device stood about 14 feet tall, was 5 feet long and 5 feet wide, and had its nickname, thingamajig, scrawled on its center steel beam in permanent marker.

"We didn't know what to call it," said Al Legan of the Accelerator Division Controls Department.

Legan, who used to work on manipulators and fixed-target experiments, designed seven motors for the device—one for each of its movable parts. He worked with Vladimir Sidorov, an Accelerator Division engineer, and Jerry Judd from the Particle Physics Division's mechanical support department.

Sidorov designed the device's structure and mechanics, while Judd was responsible for the device's assembly. Both previously worked on the Main Injector's collimator system.

The expert team spent six months working in constant communication to create the device—sharing designs and ideas via e-mail and in person.

[Read more](#)



Personnel who worked on the device: Greg Stradal, PPD; Otto Alvarez, PPD; Wojciech Blaszyński, PPD; Ralph Ford, AD; Shaun Langford, contractor; Tony Busch, AD; Mike Andrews, AD; Al Legan, AD; Mike Coburn, AD; Patrick Hurh, AD; Ban Galan, AD; Dave Erickson, PPD; Vladimir Sidorov, AD; and Jerry Judd, PPD.

-- *Rhianna Wisniewski*



A remotely operable device created by a cross-division team of engineers and technicians was used last month to extract and replace the NuMI experiment's hadron monitor.

FESS	Rod Walton	x2565
PPD, CPA	Rob Bushek	x2399
TD	Bridget Scerini	x3382
WDRS	Mike Bonkalski	x8448

Another reason to gauge the impact your work has on the environment is to be sure that the work is within legal limits. Legal mandates control how we manage water on the site, what we are permitted to release into the air, how we dispose of waste and how we site and design new construction. You can check with your environmental officer for answers about the impact your work has on the environment or to determine if your work is in compliance with the federal or state laws that constrain environmental issues. Many of the laws are implemented by formal permits issued by government agencies whose job it is to protect our environmental resources.

-- *Rod Walton, ecologist*

[Safety Tip of the Week Archive](#)

Shutdown Update

Sept. 9-11
 - MiniBooNE continues to take beam when available
 - TeV safety system test completed
 - Beam established to MI, Recycler and Pbar
 - TeV and NuMI should receive beam on Friday

[Read the Current Accelerator Update](#)

[Read the Early Bird Report](#)

[View the Tevatron Luminosity Charts](#)

Announcements

[Argentine Tango through Sept. 30](#)

[Barn dance - Sept. 13](#)

[Bowlers wanted Wednesday nights](#)

[Thai Village restaurant discount](#)

[Robotics for Fermilab employees' children](#)

[Scrapbooking Open House - Sept. 14](#)

[New Lo Cardio Class - Sept. 14 - Nov. 16](#)

[New Tai Chi For Health class - Sept. 14 - Nov. 16](#)

[URA Visiting Scholars Program now accepting applications](#)

Fermilab Today
is online at:
www.fnal.gov/today/

Send comments and suggestions to:
today@fnal.gov

Visit the Fermilab
[home page](#)

Last days of big American physics: one more triumph, or just another heartbreak?

From **Wired Science**, Sept. 9, 2009

High-energy particle physicists around the world are collectively holding their breath waiting for the Large Hadron Collider to come online and start unlocking the most elusive secrets of the universe. It's as if time is standing still until their shiny new toy is ready to play with.

But not at Fermilab. Here, physicists are in the scientific equivalent of an all-out sprint, still clinging to the ever-thinning hope that before the LHC ramps up to full power, their own 28-year old particle collider, the Tevatron, will catch the coveted Higgs boson, a theoretical particle that is at the heart of the Standard Model of physics.

"It's a worthy fight," said physicist Roy Schwitters of the University of Texas at Austin. "Their chances are certainly not zero, but they're not great."

[Read more](#)

[Six Flags Great America discount tickets](#)

[Fermilab Toastmasters can help you find your voice - Sept. 17](#)

[S&T Policy: A View from Washington, D.C. - Sept. 18](#)

[Mosaico Hispanico - celebrating Hispanic music and dance - Sept. 19](#)

[English Country Dancing - Sept. 20](#)

[MathWorks and Avnet demonstration Sept. 23](#)

[Sign up for fall Science Adventures classes](#)

[Office 2007 New Features class offered in September](#)

[Buttered Rum performs on Fermilab Arts Series Oct. 24](#)

[Fred Garbo Inflatable Theatre - at Fermilab Arts Series - Nov. 7](#)

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

["The Night Before Christmas Carol" at Fermilab Arts Series - Dec. 5](#)

[Chicago Field Office of Intelligence and Counterintelligence to offer counterintelligence cyber awareness seminar - Sept. 15](#)

[Additional Activities](#)

[Submit an announcement](#)