

Calendar

[Have a safe day!](#)

Tuesday, Nov. 2
3:30 p.m.
DIRECTOR'S COFFEE
BREAK - 2nd Flr X-Over
4 p.m.

[Accelerator Physics and Technology Seminar](#)

Speaker: Bill Pellico, Fermilab
Title: Proton Source Task Force Report

Wednesday, Nov. 3
12:30 p.m.

Physics for Everyone -
Auditorium
Speaker: Brenna Flaugh
Title: What the Cosmos Can Tell Us

3:30 p.m.
DIRECTOR'S COFFEE
BREAK - 2nd Flr X-Over
THERE WILL BE NO
FERMILAB COLLOQUIUM
TODAY

[Click here](#) for NALCAL,
a weekly calendar with
links to additional
information.

[Upcoming conferences](#)

Campaigns

[Take Five](#)

[Tune IT Up](#)

Weather



Sunny
54°/32°

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

Current Security Status

Feature

NuMI's very own MacGyver:

Keith Anderson



[Deep in concentration, Keith Anderson works on a project for NuMI.](#)

When you're working on equipment for the world's first 500-mile neutrino beam, there's no handbook. So for Keith Anderson, senior technical aide for the NuMI (Neutrinos at the Main Injector) support group, creativity is key.

Anderson joined Fermilab in 2002 and worked for three years as a contractor before he was hired as a full-time technician. Formerly a tank mechanic in the U.S. Army, he had experience working with heavy, sophisticated equipment that fit in well with neutrino experiments.

"I put things together and then I fix them when they're broken," Anderson said. "It's just using a wrench for the most part, until there's a failure. Then you have to use some ingenuity."

"I was just looking for a change of pace," Anderson said. "Being a truck mechanic is the same thing day in, day out – and you come home every day smelling of diesel fuel. Personally, I like coming up with new ideas."

NuMI provides plenty of opportunities for innovation. When the support group had to investigate a decay pipe in a high-energy area, it devised a plan to create a periscope to look down into the dark tunnel. Anderson did much of the periscope's design, including its light source: a remote-controlled Caterpillar truck from Toys R' Us. Anderson took the truck home at night and spent weeks fitting it with a complex array of LED lights to illuminate the pipe.

"Keith has a perfect blend of talent and creativity," said engineer Kris Anderson, NuMI beams mechanical support group leader. "He'll uncover a problem and call me, already with some solutions in mind."

Because of its scale, constructing and

Director's Corner

HEPAP

Last Tuesday, the High Energy Physics Advisory Panel met to consider the recommendations made by its P5 subpanel in connection with the proposed Tevatron extension. Professor Charlie Baltay, the chairman of P5, made a presentation on the reasons for the [recommendations](#) followed by discussions and a vote. HEPAP endorsed the [P5 report](#) and transmitted the recommendations to DOE. The conclusions of P5 are summarized in two recommendations:



Pier Oddone

Recommendation 1: *The panel recommends that the agencies proceed with a three-year extension of the Tevatron program if the resources required to support such an extension become available in addition to the present funding for HEP. Given the strong physics case, we encourage the funding agencies to try to find the needed additional resources.*

Recommendation 2: *The panel recommends that Fermilab make a strong effort to minimize the impact of an extended Tevatron run on the NOvA experiment.*

The first thing that comes to my mind when I think of the Tevatron extension is what has made all of this possible: the remarkable performance achieved by the Tevatron and its two physics collaborations, CDF and DZero. This performance has extended the Tevatron reach into the most interesting territory of our time: the search for the Higgs boson. This very pleasant thought is quickly replaced by many others about the steps that lie ahead to avoid turning a very good thing into a bad thing.

One very bad thing could occur if we lost the momentum we have built towards new major experiments at the Intensity Frontier such as LBNE and Mu2e or had an impact on the community regarding its move to upgrade the LHC or other forward-looking experiments at the Intensity and Cosmic frontiers. We must build the facilities that will define the future of

[Secon Level 3](#)[Wilson Hall Cafe](#)

Tuesday, Nov. 2

- Breakfast: Bagel sandwich
- Chicken & rice soup
- Italian sausage w/ peppers & onions
- *Beef stroganoff
- *Chicken lemon
- Peppered beef
- Assorted sliced pizza
- Chicken tostadas

[Wilson Hall Cafe Menu](#)[Chez Leon](#)

Wednesday, Nov. 3

Lunch

- Northern Italian lasagna
- Caesar salad
- Cassata

Thursday, Nov. 4

Dinner

- Mixed greens w/ pecans, goat cheese & dried cranberries
- Lamb chops w/ herb & olive crust
- Garlic mashed potatoes
- Sauteed tri-colored peppers
- Pear tart

[Chez Leon Menu](#)

Call x3524 to make your reservation.

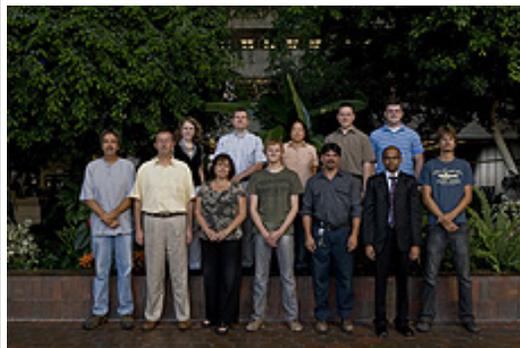
[Archives](#)[Fermilab Today](#)[Director's Corner](#)[Result of the Week](#)[Safety Tip of the Week](#)[CMS Result of the Month](#)[User University Profiles](#)[ILC NewsLine](#)

repairing the NuMI equipment is a learn-as-you-go experience. Even simple things, such as shipping a piece of hardware, often require a great deal of resourcefulness. Million dollar hardware requires specialized packaging, and Anderson is often the one to engineer and construct it.

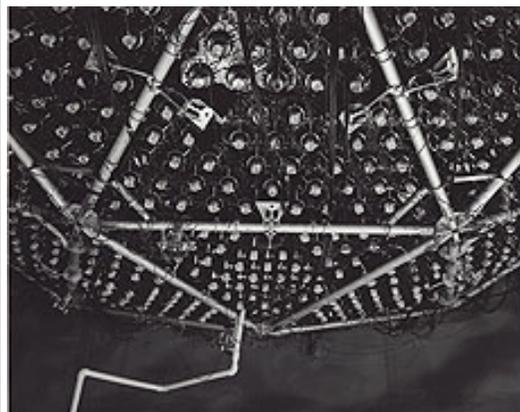
"When he's done, it's like Norm Abram from 'This Old House' built the thing," Kris Anderson said.

"Finding better ways of doing stuff, that's just something I like," Keith Anderson said. "Everything's challenging because none of this has ever been done before. We're always improving."

- Sara Reardon

[Photo of the Day](#)**New employees - September 7**

First row, from left: Garry Tooley, Nihad Tanovic, Meghan Czamanski, Evgeny Toropov, Dan Curatolo, Abhishek Deshpande and Zachary Stauber. Second row from left: Sara Reardon, Bruce Squires, Hengbao Zeng, Kyle Knoepfel and Tyler Parsons.

From *symmetry breaking***Photographer crosses globe to capture art of high-energy physics**

SNO, SNOLab, Ontario, 2009

From ATLAS to Antarctica, photographer

our field. That is why the HEPAP recommendation is conditioned on securing additional resources to prevent this negative outcome. The laboratory is committed to work toward this goal and I have made it clear at all the relevant levels of the administration and Congress that we do not want to extend the Tevatron run if the resources needed beyond the proposed squeeze in the Fermilab program are extracted from the rest of the HEP program.

An unavoidable bad thing is the impact on the NOvA physics program, which would receive reduced beam intensity while the Tevatron continues to run. We are committed to mitigate this problem as much as possible and we will study how we can increase the beam power and the mass of the detector as recommended by HEPAP. The unique physics made possible by the NOvA program will be achieved with some delay, one that we will try to minimize.

We are at a very special moment in particle physics. The Tevatron has the potential to contribute to the day's most important physics investigation and the LHC will open a huge new area for exploration. We also have a planned formidable program at the Intensity Frontier for Fermilab and Japan; and detectors that will make the next steps in the discovery of dark matter and the understanding of dark energy.

Together we must continue to project the excitement of our field to the public, to future generations of scientists and engineers and to our government sponsors.

[Accelerator Update](#)

Oct. 29- Nov. 1

- Five stores provided ~44 hours of luminosity
- NuMI conducted target scans
- Pbar operated on a 2.4-second rep rate
- DZero needed 10-hour access to fix detector
- Pelletron repairs in progress
- NuMI started taking beam today, 11/1/10

*The integrated luminosity for the period from 10/25/10 to 11/1/10 was 59.99 inverse picobarns.

*NuMI reported receiving no protons on target during this same period due to target work.

[Read the Current Accelerator Update](#)[Read the Early Bird Report](#)[View the Tevatron Luminosity Charts](#)

Info

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Stanley Greenberg has travelled the world in a high-energy treasure hunt for the shapes of physics. In a book of photographs to be published next year, Greenberg will show the results of his five-year photography tour of detectors and accelerators across the United States, Canada, Switzerland, Germany, Italy, Argentina, Japan and Antarctica.

The book's title, "Time Machines," refers to the experiments' efforts to recreate the period just after the big bang. Yet the photos themselves create something of a time warp effect: the most high-tech equipment in the world shot on black and white film.

Greenberg, who has already published two photography books on New York City's infrastructure and architecture under construction around the country, was impressed by the structural forms and large spaces that comprise detectors.

"It's an extra feature that there's all this incredible research going on," he said.

[Read more](#)

In the News

MIT Study Offers New Perspectives on Nuclear Energy

From *The AIP Bulletin of Science Policy News*, Oct. 29, 2010

An interdisciplinary MIT study offers important new perspectives on many of the long-running issues surrounding the future utilization of nuclear energy in the United States. In several areas, the report provides the basis for a fundamental rethinking of long-held assumptions about reactor fuel, reactor design, and the disposition of spent nuclear fuel.

"*The Future of the Nuclear Fuel Cycle*" is the latest of three related studies on nuclear energy issued by MIT. The study group's ten members included Mujid Kazimi and Ernest Moniz as the co-chairs and Charles Forsberg as the executive director. Additional assistance was provided by three contributing authors, eight student research assistants, and a thirteen member advisory committee. The report's first chapter provides the study's overview, conclusions, and recommendations and was released last month; the other ten chapters will be released before the end of the year. Some of the key findings and recommendations from this chapter follow.

Announcements

Latest Announcements

[NPRT service upgrade- Nov. 4](#)

[Indian Creek Road closed at MI-8 today](#)

[Computer Security Awareness Day - Nov. 9](#)

[Annual enrollment](#)

[Free weekly wellness classes](#)

[Martial Arts classes](#)

[Free CERN LHC book](#)

[Needles and Threads introductory meeting schedule](#)

[Nov. 22 deadline for The University of Chicago Tuition Remission program](#)

[Toastmasters - Nov. 4](#)

[Argentine Tango through Nov. 3](#)

[Pedestrian safety awareness for families](#)

[Pedestrian safety at crosswalks](#)

[ES&H Winter Fair - Nov. 10](#)

[Bullying: It's everyone's problem - Nov. 18](#)

[Accelerate to a Healthy Lifestyle program](#)

[Chicago Blackhawks November discount tickets](#)

[Yoga begins today](#)

[Scrappers meet today](#)

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