

Calendar

Have a safe day!

Friday, Sept. 3

3:30 p.m.

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

4 p.m.

[Joint Experimental-Theoretical
Physics Seminar](#) - One West

Speakers: Michael Turner,
University of Chicago
Title: The Decade Ahead in
Astrophysics: New Worlds,
New Horizons and Fermilab

Tuesday, Sept. 7

THERE WILL BE NO
ACCELERATOR PHYSICS
AND TECHNOLOGY
SEMINAR TODAY

3:30 p.m.

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

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

[Upcoming conferences](#)

Campaigns

[Take Five](#)

[Tune IT Up](#)

Weather



**Slight chance of
showers**
70°/48°

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

Current Security Status

[Secon Level 3](#)

Wilson Hall Cafe

Special Announcement

DUSEL continues today

The first meeting of the DUSEL users' organization continues today at 8:15 a.m. in One West. The agenda and registration information are available on the DuRA [meeting website](#). Those who cannot attend in person can watch the meeting [streamed live](#).

Feature

Fermilab employees earn silver in international competition



2010 U.S. Control Line Model Aircraft Team: Alex Valishev, Carl Dodge, Bill Hughes and James Van Sant (junior team member). Each flew his personally designed aircraft for Fédération Aéronautique Internationale's control line competition.

Fermilab employees know a thing or two about bringing tiny objects to very high speeds.

Accelerator Division scientist Alex Valishev and technical specialist Bill Hughes, along with Ohio resident Carl Dodge, recently won the silver medal for the United States in a model aircraft speed competition in Gyula, Hungary.

"This was the best year in all the time I've been doing this," said Hughes, who participated in this competition eight times for the U.S. team since 1990. "There was so much camaraderie between our team and the other teams."

They performed better in their category than any other U.S. team in the Fédération Aéronautique Internationale World Championship since 1976. Valishev and Hughes also earned 7th and 10th place,

Recovery Act

Autos to accelerators



Niowave employee Brian Deimling worked in the auto industry for almost 30 years.

Physicist Terry Grimm has a vision for Lansing, Michigan.

In a town haunted by the remains of fallen automobile plants, his company and others like it are hiring workers to put their car-manufacturing skills toward building particle accelerators.

"People question whether manufacturing is going to go away in this country," Grimm said. "That's not the case. There's enough high-tech industry that needs it. We need the same expertise that the auto industry required."

Fermilab used funds from the American Recovery and Reinvestment Act to hire Grimm's company, Niowave Inc., to build [superconducting radio-frequency cavities](#) in cooperation with Indiana-based Roark Welding & Engineering Co.

But these days, people use accelerators for [more than particle physics](#). Medical centers use accelerators to create radioisotopes or X-rays for cancer therapy. Electron beams from accelerators can sterilize medical equipment or food packaging. Industries use free-electron lasers to process and identify chemicals. The Navy is interested in using those lasers to defend ships.

"The technology is really taking off," Grimm said. "We can't keep up with everything with our current staff of 50. We're looking at expanding to an additional facility."

Friday, Sept. 3

- Breakfast: Chorizo burrito
- Smart cuisine: Italian vegetable soup
- Teriyaki chicken
- Southern-fried chicken
- Smart cuisine: Mediterranean baked tilapia
- Eggplant parmesan panini
- Assorted sliced pizza
- Assorted sub sandwiches

[Wilson Hall Cafe Menu](#)

Chez Leon

Wednesday, Sept. 8

Lunch

- Sesame chile chicken w/ gingered watermelon salsa
- Basmati rice
- Coconut flan

Thursday, Sept. 9

Dinner

- Gourmet greens, pear & parmesan salad
- Beef Wellington
- Whipped potatoes
- Green beans
- Chocolate soufflé w/ crème Anglaise

[Chez Leon Menu](#)

Call x3524 to make your reservation.

Archives

[Fermilab Today](#)

[Result of the Week](#)

[Safety Tip of the Week](#)

[CMS Result of the Month](#)

[User University Profiles](#)

[ILC NewsLine](#)

Info

respectively, in the individual competition. Carl Dodge, the 1990 World Champion, took 9th place.

The FAI hosts competitions in all types of aeronautics-related sports events, from parachuting to helicopter modeling. The goal of the control line event, in which Valishev and Hughes participated, is to design and fly a model aircraft that will achieve the highest possible speed. The competitor guides the aircraft, tethered to a pylon, in a 1 km circle.

Valishev successfully flew his aircraft at 296.1 km per hour; Hughes at 293.5 kph.

Next time, said Valishev, "The challenge is to beat the British – they're very good."

--Leah Hesla

Special Announcement

Window washing at Wilson Hall begins next week

Interior and exterior Wilson Hall window washing will take place for most of the remainder of September.

Crews will wash exterior windows during phase one of the schedule beginning Tuesday, Sept. 7, and extending through Friday. Please respect the barricades.

Phase two of the schedule will begin Monday, Sept. 13, and will involve interior window washing, including double-paned windows. Crews will work from the top floors down, beginning with floors 15, 14, 13 and 12 on Monday, Sept. 13; floors 11 and 10 on Tuesday, Sept. 14; floors nine through eight on Wednesday, Sept. 15; floors seven through four on Thursday, Sept. 16; and three through one on Friday, Sept. 17. Windows on the mezzanine and ground floor will be washed on Monday, Sept. 20.

Please clear all items from in front of windows on days work is scheduled for your floor. Crews will also ask you to step away for a few minutes while windows are being cleaned.

Phases three and four of the schedule will take place during the week of Monday, Aug. 20. Crews will wash the windows in Wilson Hall's atrium during nights the week of Aug. 20.

Contact Enixe Castro at x2798 with any questions.

Niowave is collaborating with 10 companies in the area, most of them automotive parts suppliers that have expanded into the high-tech industry.

Leaders in these companies foresee a possible statewide move from "autos to accelerators," their proposed new catch phrase for Michigan industry.

"We think it's going to be a very big thing," Grimm said. "It's an opportunity to be the Silicon Valley for accelerator research."

A changing landscape

Michigan could use a bit of hope for its future. The [unemployment rate](#) for the state has been above 10 percent since November 2008, according to the Bureau of Labor Statistics. Manufacturing jobs [in Lansing](#) and [in the rest of the state](#) have decreased fairly steadily over the past 10 years.

[Read more](#)

--Kathryn Grim

Letter to the Editor

Clearing the cobwebs

Editor's note: Fermilab Today *received several e-mails about John Sachtschale's excellent photograph of a spider, which ran in Thursday's issue. Todd Sullivan, John Angelus and Timur Perelmutov informed us that the arachnid in question was not, in fact, a banana spider. They identified it as either a garden spider or St. Andrew's cross spider.*

Nick Evans had an entirely different complaint:

Dear *Fermilab Today*,

Disgusting nightmare spiders have no place on the front page. If someone takes a picture of a chipmunk riding a bunny rabbit, please post that.

Sincerely,

Nick Evans

Announcements

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suggestions to:
today@fnal.gov

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In the News

Ye cannae change the laws of physics -- or can you?

From *The Economist*, Aug. 31, 2010

Richard Feynman, Nobel laureate and physicist extraordinaire, called it a “magic number” and its value “one of the greatest damn mysteries of physics”. The number he was referring to, which goes by the symbol alpha and the rather more long-winded name of the fine-structure constant, is magic indeed. If it were a mere 4% bigger or smaller than it is, stars would not be able to sustain the nuclear reactions that synthesise carbon and oxygen. One consequence would be that squishy, carbon-based life would not exist.

Why alpha takes on the precise value it has, so delicately fine-tuned for life, is a deep scientific mystery. A new piece of astrophysical research may, however, have uncovered a crucial piece of the puzzle. In a paper just submitted to [Physical Review Letters](#), a team led by John Webb and Julian King from the [University of New South Wales](#) in Australia present evidence that the fine-structure constant may not actually be constant after all. Rather, it seems to vary from place to place within the universe.

[Read more](#)

Latest Announcements

[Argentine Tango, Wednesdays through Sept. 29](#)

[Heartland blood drive total was 90 lifesaving units of blood!](#)

[Submit timecards today](#)

[Chicago Blackhawks pre-season discount tickets](#)

[Reduced parking behind Ramsey Auditorium - Sept. 7-17](#)

[Pine Street closures scheduled this week](#)

[Junior Prairie Rangers - Saturday, Sept. 18](#)

[Workshop on Accelerator-Driven Sub-Critical Systems & Thorium Utilization](#)

[Sign up for fall Science Adventures](#)

[Looking for league bowlers](#)

[Bristol Renaissance Faire discount](#)

[Regal Movie Theater discount tickets available](#)

[Fermilab Lecture Series Presents A Croc Odyssey: Speedy Gallopers with a Taste for Dinosaur](#)

[Gizmo Guys - Fermilab Arts Series - Sept. 25](#)

[Family Science Time - Saturday, Sept. 25](#)

[Submit an announcement](#)