

# Fermilab Today

Monday, March 20, 2006

## Calendar

### Monday, March 20

**2:30 p.m.** Particle Astrophysics Seminar

- Curia II

Speaker: A. Notari, McGill University

Title: A Graceful Exit for Old Inflation and a Solution to the Hierarchy Problem

**3:30 p.m.** DIRECTOR'S COFFEE

BREAK - 2nd Flr X-Over

THERE WILL BE NO ALL

EXPERIMENTER'S MEETING THIS WEEK

### Tuesday, March 21

**3:30 p.m.** DIRECTOR'S COFFEE

BREAK - 2nd Flr X-Over

**4:00 p.m.** Accelerator Physics and

Technology Seminar - Curia II (Note

Location)

Speaker: S. Beysserie, Illinois Institute of Technology

Title: Numerical Modeling of Novel Electron Materials and Devices

## Weather



Mostly Cloudy **39°/25°**

[Extended Forecast](#)

[Weather at Fermilab](#)

## Current Security Status

[Second Level 3](#)

## Wilson Hall Cafe

### "La Vida Robot" Lecture: Really, It's a True Story



These high school students won a robot-building competition against MIT. (Click image for larger version.)

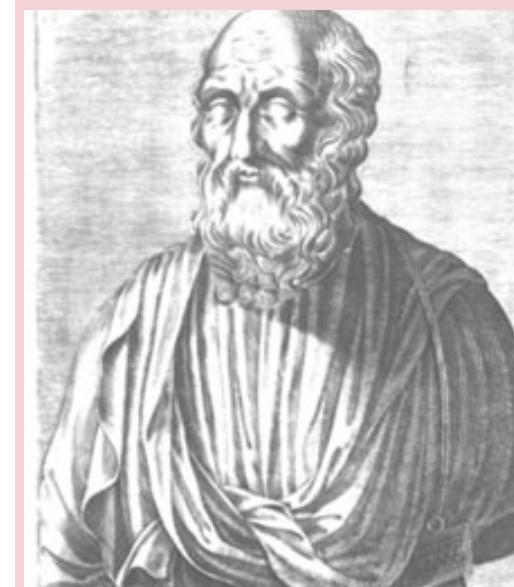
Sitting in 1 West during Wednesday's packed "La Vida Robot" presentation, it was hard not to make the obvious comparison to the movie *Stand and Deliver*. A 92 percent Latino school district with a per capita income of approximately \$9,000 meets an inspiring teacher--or two, in this case. Within months, gang-banging adolescents become academic whiz kids, and perform smashingly when they compete with students who have every advantage they didn't get.

But this wasn't a movie; it was real. Even better, these undocumented immigrant high-schoolers took part in a national underwater robot-building competition where they were pitted against well respected universities. The real kicker: They won the competition--they even beat MIT.

It all started with two teachers at Carl Hayden Community High School in West Phoenix. Allan Cameron, who teaches computer science, and Fredi Lajvardi,

## Safety Tip of the Week

### Improving procedures



*Anyone who leaves behind him a written manual, and likewise anyone who receives it, in the belief that such writing will be clear and certain, must be exceedingly simple-minded.*

--Plato (427 BC - 347 BC)

Work carried out by Fermilab employees, as well as work done by experimenters and subcontractors while onsite, is subject to hazard analysis (see [FESHM 2060, 7010, 7011 and 7020](#)). An option to this requirement is to work under an operating procedure that addresses the applicable hazards and controls. This seems reasonable, but what experience has industry had with procedures?

In a paper by [Embrey, et al](#), 400 managers and operators were queried regarding their use of formalized procedures. For tasks perceived to be safety critical, the availability of procedures was found to be 75 percent, for problem diagnosis 30 percent and for routine tasks 10 percent. However,

**Monday, March 20**

- Potato Au Gratin
- Monte Cristo
- Savory Roasted Chicken Quarters
- Lasagna Bolognaise
- Chicken Ranch Wrapper
- Assorted Pizza Slices
- Szechuan Style Pork Lo Mein

The Wilson Hall Cafe accepts Visa, Master Card, Discover and American Express.

[Wilson Hall Cafe Menu](#)**Chez Leon****Wednesday, March 22****Lunch**

- Southwest Marinated Cornish Hens
- Rice & Pigeon Peas
- Vegetable Medley
- Coconut Cake w/Rum Sauce

**Thursday, March 23****Dinner**

- Bouillabaisse
- Watercress & Radicchio Salad
- Gran Manier Souffle

[Chez Leon Menu](#)

Call x4512 to make your reservation.

**Search**[Search the Fermilab Today Archive](#)**Info**

who teaches science, organized an after-school program so students could build a robot to compete in



Allan Cameron

the third annual Marine Advanced Technology Education Center's Remotely Operated Vehicle Competition. "When we first started, we were

known as the nerdy robot club. But now it's the coolest club on campus," Lajvardi said at Wednesday's presentation. Pretty soon, students who formerly spent after-school hours in West Phoenix gangs found themselves hunched over wires and PVC pipes each evening, working out pulse modulation problems so their robots could dive deeper underwater and retrieve more objects. "The magic happens not because you build a robot and it wins," said Cameron. "It happens because the volunteers spend time with these kids--they get to know engineers and people with degrees in real life. They see that it's a real, viable option."

Lajvardi says that he and Cameron decided to enter the students into the University category of the



robot contest because they figured it would be less disappointing if they lost. When the students actually won, it made the victory even more surprising--it was a

existing procedures were only referenced 58 percent of the time that the associated tasks were carried out (i.e., procedures were actually utilized in 43 percent of critical tasks). In follow up questions, the authors discovered a wide range of reasons that procedures went unused. The most common were (1) the job won't get done if I follow the procedure, (2) what procedure?, (3) I rely on my skills/experience and (4) trust me, I know what's in the procedure.

The following are the most highly ranked improvement strategies from the paper. Consider their use to help you get the most benefit from your procedures.

- Involve users in procedure development.
- Use a simple direct style.
- Incorporate current work practices.
- Update when changes occur.

[Safety Tip of the Week Archive](#)**Accelerator Update****March 10 - 17**

- The accelerator shutdown continues

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

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Fredi Lajvardi veritable coup. The Carl Hayden students got national attention; they were featured on *ABC News Nightline* and in *Wired* magazine. A scholarship fund was established for the kids (they don't qualify for student aid because most are not documented citizens), raising \$80,000 in contributions from donors around the world.

In spite of all the attention, Cameron and Lajvardi seemed non-plused when they addressed the Fermilab audience: "We used to be known as the gang school," said Lajvardi. "Now we're known as the robot school."

For more information about the program at Carl Hayden High, or to donate to the scholarship fund or volunteer, you can visit this [website](#).

—*Siri Steiner*

### Photo of the Day



**25 Year Service Award Group Photo**

Row 1 - W. Stearns, A. Rusy, W. Marsh, M. Eriks, P. Simon, C. Rogers, M. Adamus

Row 2 - S. Holmes (Directorate), T. Van Raes, J. Spencer, T. Olszanowski, D. Assell, G. Johnson, A. Franck, B. Claypool, B. Kubinski

Row 3 - G. Smith, B. Needham, J. O'Neill, R. LeBeau, S. Helis, W. Van Duzen, R. Slazyk Sr. (Click image for larger version.)

## Nature,

**March 15, 2006:**

**Particle physics: Let the games begin**

Normally, the trick to learning something at a scientific meeting is to listen to the key lectures. But one afternoon last month, in a conference room at CERN, the European particle-physics lab near Geneva, physicist Matt Strassler managed to convince several researchers that they might learn more if they left the lecture room. He wanted them to avoid hearing the solution to a puzzle they had been working on for months.

Welcome to the strange world of the Large Hadron Collider (LHC) Olympics, a workshop held at CERN in which teams of theorists studied fake data in order to explore unproven theories.

Strassler, a theorist from the University of Washington in Seattle, was one of the organizers of the event, which brought together more than 50 theoretical physicists from across Europe and the United States. These 'olympians' have devoted their careers to building mathematical models of the Universe and matter. The LHC Olympics was designed to put their ideas to the test; their challenge was to prepare for the real data expected to emerge from one of the biggest experiments in physics. Strassler and his colleagues had accepted that challenge —and they weren't going to give up on their first attempt.

[Read More](#) (Subscription Required)

## Announcements



#### 20 Year Service Award Group Photo

Row 1 - D. Allspach, J. Sullivan, R. DeMaat,  
N. Oshima

Row 2 - C. Wilson, J. Schwartz, J. Collins, B.  
Chrisman (Directorate) (Click image for  
larger version.)



#### 10 Year Service Award Group Photo

Row 1 - L. Baltes, B. Alcorn, A. Shenai, A.  
Moibenko

Row 2 - J. Clemons, R. Barger, J. Hammer,  
B. Chrisman (Directorate) (Click image for  
larger version.)

#### Scottish Country Dancing

Scottish Country Dancing will meet Tuesday, March 21, at Kuhn Barn on the Fermilab site. 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. Info at 630-840-8194 or 630-584-0825 or [folkdance@fnal.gov](mailto:folkdance@fnal.gov).

#### Lifeguards Needed

The Recreation Office is looking for full or part-time lifeguards to staff the village pool this summer. Lifeguards must be at least 17 years of age and have their water safety, CPR and First Aid certifications. Lifeguards must be able to work between the hours of 9:00 am and 8:00 pm on rotating shifts, weekends and holidays. The pool opens Memorial Day weekend and closes Labor Day weekend. Starting salary is \$7.50 per hour. More information or to apply online go to [the employment website](#).

#### Upcoming Activities