

Calendar

Friday, November 18

3:30 p.m. Director's Coffee Break - 2nd Flr X-Over

4:00 p.m. Joint Experimental Theoretical Physics Seminar - 1 West

Speaker: J. Link, Columbia University

Title: Meson Production Results from E910 and Their Relevance to MiniBooNE

Monday, November 21

2:30 p.m. Particle Astrophysics Seminar - Curia II

Speaker: A. Hime, Los Alamos National Laboratory

Title: DEAP and CLEAN Detectors For Low-Energy Particle Astrophysics

3:30 p.m. Director's Coffee Break - 2nd Flr X-Over

4:00 p.m. All Experimenters' Meeting - Curia II

Special Topic: December Accelerator Studies

Weather



Partly Cloudy **38°/30°**

[Extended Forecast](#)

[Weather at Fermilab](#)

Current Security Status

[Secou Level 3](#)

Wilson Hall Cafe

Crash Course in Luminosity, Key to Discovery at Fermilab

This is the fourth story in a series that explains [what luminosity is](#), and why we've recently gotten better at producing it in the Tevatron.



Elvin Harms (left) and Paul Derwent (right) stand inside the Antiproton Source tunnel next to the Accumulator and Debuncher rings. ([Click on image for larger version.](#))

Making the best antiproton beams

In the quest for higher luminosity in the Tevatron, scientists are focusing their attention on the proton's negatively charged counterpart - the antiproton. Protons are plentiful, but antiprotons are a different story. For every million protons that crash into the Antiproton Source target, only about 15 antiprotons (pbars) are collected. One of the central strategies for the Run II luminosity upgrades is to increase this production rate and the corresponding antiproton stacking rate while decreasing the time it takes to cool the particles and set up their transfer to the Recycler storage ring.

At Fermilab, antiprotons are made by aiming a 120 GeV proton beam from the Main Injector onto a metallic target at the

"Perfect" Artist's Reception Tonight at Fermilab Gallery



"February 2002" by Cat Chow is made of one continuous zipper. It is on display on the second floor crossover. ([Click image for larger version.](#))

There will be an artist's reception for Fermilab's new exhibition, "Perfect," tonight from 5:00 to 7:00 p.m. in the Wilson Hall art gallery. The exhibit features tapestries woven from pantyhose, a puzzle made from Crispy Creme boxes, and a single continuous zipper, fully zipped to create a 60x60 inch circle.

"This exhibit is a good match for Fermilab," said Marci Rae McDade, the curator of "Perfect." "It is about paying close attention to detail and making new discoveries in the mundane, which is a big part of what scientists do." McDade says that re-fashioning mundane objects and events invites viewers to re-examine things they usually overlook.

Altogether, the exhibit features 13 artists: a wood carving by Ben Butler, needlepoint by McDade, a sculpture by Amy Honcell, and a painting by Chris Uphues, among others. Refreshments will be served at the reception, and everyone is welcome.

Friday, November 18

- Beef Pepper Pot
- Buffalo Chicken Wings
- Cajun Breaded Catfish
- Sweet & Sour Pork Over Rice
- Honey Mustard Ham & Swiss Panini
- Double Stuffed Pizza
- Carved Turkey

The Wilson Hall Cafe accepts Visa, Master Card, Discover and American Express at Cash Register #1.

[Wilson Hall Cafe Menu](#)

Chez Leon**Thursday, November 17****Dinner**

- Vol-au-Vents with Mushrooms
- Stuffed Filet of Sole with Crabmeat
- Vegetable Medley
- Maple Walnut Cake with Maple Glaze

Wednesday, November 23**Lunch**

- Cheese Fondue
- Salad of Marinated Vegetables
- Poached Pears with Red Wine

[Chez Leon Menu](#)

Call x4512 to make your reservation.

Search**Search the Fermilab Today Archive****Info**

Antiproton Source. When the protons smash into the disc, antiprotons, along with many other particles, spray out with different energies and at different angles. A lithium lens collects negatively charged particles that have a certain energy.

But that's just the beginning. "Particles coming off the target and off the lens are like a hot gas," said Elvin Harms, head of Antiproton Source Department. "You've got myriad particles and they're bouncing all over the place. Well, that's not good for collecting antimatter."

[Read More](#)

—Kendra Snyder

ILC NewsLine**ILC Scientists Organize International School for Linear Colliders**

Shin-ichi Kurokawa (right) discusses how to create an International School for Linear Colliders with Jean-Pierre Delahaye at the committee meeting that was held during the Snowmass workshop in August.

At the Snowmass Workshop, amid the debates over detectors, linac design and costing estimates, a committee organized an accelerator school to recruit new young physicists to join the International Linear Collider collaboration.

[Read More](#)

—Siri Steiner

Announcements**Graduate Students' Recipes**

As a graduate student, did you live off saltines and mustard? Did you keep 20 pounds of tuna casserole in the fridge? The Office of Public Affairs is interested in knowing your stories and recipes related to the food that you survived on as a grad student, including both past and present graduate students. If you've got some interesting stories, recipes or anecdotes, please let us know so that we can include your material in a future story in Symmetry magazine. We may also feature you in Fermilab Today. Send an e-mail to today@fnal.gov and let us know. Be sure to include the best way for us to contact you.

Give the Green Guy a Name

Help us name the Fermilab sustainability icon. [Vote on a name](#) by the end of Monday, November 21.

SciTech SciBee

Aurora-SciTech Hands On Museum will hold its fifth annual SciBee Friday, November 25, at 11:00 a.m. for children in grades one through eight. Contestants must pre-register by calling (630) 859-3434, ext. 210. For information, call (630) 859-3434 or visit [the museum online](#).

SciTech will be closed on Thanksgiving, November 24. The museum will be open on Friday, November 25, from 10 a.m. to 5 p.m.

Mileage Reimbursement Rate Increase

In recognition of recent gasoline price increases, the Internal Revenue Service and the General Services Administration have increased the standard mileage

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In the News

NASA Press Release: November 17, 2005

Hubble, Sloan Quadruple Number of Known Optical Einstein Rings

Astronomers have combined two powerful astronomical assets, the Sloan Digital Sky Survey (SDSS) and NASA's Hubble Space Telescope, to identify 19 new "gravitationally lensed" galaxies, adding significantly to the approximately 100 gravitational lenses previously known. Among these 19, they have found eight new so-called "Einstein rings," which are perhaps the most elegant manifestation of the lensing phenomenon. Gravitational lensing occurs when the gravitational field from a massive object warps space and deflects light from a distant object behind it. Einstein rings are produced when two galaxies are almost perfectly aligned, one behind the other.

[Read More](#)

rate reimbursement to 48.5 cents per mile for business miles driven between September 1 and December 31, 2005.

2006 Charitable Giving Campaign

It's time again for the annual charitable giving appeal. You may select any IRS approved charity and designate a minimum payroll deduction of \$52 per year. Our larger community benefits greatly for every dollar you give. The form is available [online](#).

New Classifieds on Fermilab Today

New [classified ads](#) have been posted on Fermilab Today.

[Upcoming Activities](#)