

## Calendar

### Friday, December 2

**11:00 a.m.** Theoretical Physics Seminar  
- Curia II

Speaker: A. Freitas, Zurich University

Title: Exploring the Nature of Matter at  
Future Colliders

**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. Repond, Argonne National  
Laboratory

Title: Jet Energy Flow and Calorimetry

**8:00 p.m.** Fermilab Lecture Series -  
Ramsey Auditorium

Dr. John Stachel presents: World Year of  
Physics Lecture, Einstein: A Man for the  
Millennium?

### Monday, December 5

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

Speaker: A. Zentner, University of  
Chicago

Title: Dark Halo Substructure:  
Constraining Fundamental Physics in the  
Non-Linear Regime

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

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

Special Topics: Computing Service  
Interruptions

BCP (Buffer Chemical Polishing) Facility

## Weather

## "Late Show with Leon" Available for Viewing Today



"Einstein" came to life to introduce Lederman yesterday in the Ramsey Auditorium. (Click image for larger version.)

Yesterday's event "Late Show with Leon Lederman," in which Nobel Laureate Lederman discussed physics with three Fermilab scientists in a talk-show setting, will be available for viewing today as streaming video after 12:30 p.m. through [Visual Media Services](#). The production was a part of a 12-hour international webcast, "Beyond Einstein," which was broadcast from [CERN](#) to celebrate the world year of physics. Several local newspapers reported on the show today.

## Crash Course in Luminosity, Key to Discovery at Fermilab

*This is the eighth story in a [series](#) that explains what luminosity is, and how Fermilab scientists work to improve it in the Tevatron.*

## Education Volunteers Honored at Reception



Fermilab Director Pier Oddone (right) presents the Director's Award to Mike Albrow. (Click image for larger version.)

Fermilab Director Pier Oddone honored hundreds of employees, users and contractors on Wednesday, November 30 for their support of Fermilab educational programs. The Volunteers Reception acknowledged those who help keep exhibits at the Lederman Science Center running, provide answers to physics questions from the public at Ask-a-Scientist events, make presentations to local classrooms, help with scout projects and assist docents and others in the Education Office with group tours--all without being paid. Volunteers also provide ideas and clarify the science for classroom materials and exhibits.

Volunteers were nominated earlier this fall. CDF's Mike Albrow won the \$1,000 Director's Award for his efforts with the World Year of Physics classroom visits, making physics presentations to more than 10,000 students by year's end (see [Fermilab Today, October 24, 2005](#)).

Finalists were: Curt Danner, Don Lincoln, Arnold Pompos, Ron Ray and Jerry Zimmerman. Other nominees this year were: Muzaffer Atac, Geoff Eargle, Terry Kiper, John Korienek and Paul Nienaber.



Increasing Cloudiness 25°/17°

[Extended Forecast](#)[Weather at Fermilab](#)**Current Security Status**[Secou Level 3](#)**Wilson Hall Cafe****Friday, December 2**

- New England Clam Chowder
- Western BBQ Burger
- Tilapia with Tortilla Crust
- Swedish Meatballs
- Bistro Chicken and Provlone Panini
- Assorted Personal Size Pizzas
- Carved Top Round of Beef

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

[Wilson Hall Cafe Menu](#)**Chez Leon****Wednesday, December 7****Lunch**

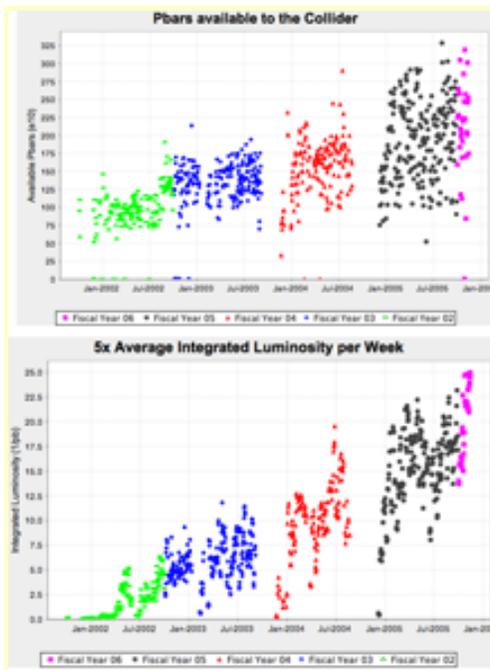
- Shrimp
- Roasted Red Peppers with Spinach
- Tortellini in Cream Sauce
- Lingonberry Cheesecake

**Thursday, December 8****Dinner**

- Shrimp Bisque
- Quail in Pear
- Wild Rice w/Pecans & Currants
- Multicolor Julienne of Peppers
- Cranberry Cake

[Chez Leon Menu](#)

Call x4512 to make your reservation.



The two graphs show how improving the supply of pbars to the collider (graph 1) has coincided with an increase in weekly integrated luminosity, (graph 2) from 2002-2006. (Click on images for larger version.)

**Rapid Response Team Set To Cap Off Run II Upgrades**

Like any "overnight success," the Accelerator Division's Rapid Response Team has been years in the making. The groups pushing the accelerated finishing touches to Run II upgrades have origins going back to early 2003, soon after Roger Dixon was named division head. Dixon wanted to draw people from different areas, forming teams that could respond quickly to unexpected problems. One such team successfully tackled difficulties at the Switchyard on the 120 GeV beamline.

"This is a bigger effort, more like a really long-term investment," said Dave McGinnis, head of the Run II Upgrade Rapid Response Team. "The key issue was making more antiprotons. The antiproton stacking rate didn't seem to be keeping pace. We didn't want to wait for

All nominees, as well as other scientists, are eligible for nomination for next year's award.

—Kendra Snyder

**Walker Honored With CHL Building Plaque**

Ronald Walker's wife, Jane Walker, and Cryogenic Department Head Jay Theilacker unveiled the plaque at the dedication (Click image for larger version.)

Friends, family and former co-workers of Ronald Walker gathered outside the CHL building Wednesday morning to dedicate a plaque in his honor. Walker, a Fermilab physicist of 32 years and Deputy Cryogenic Department Head, died in April 2004. "His contributions were so important to the success of the Tevatron that we really wanted to do something a little more special," Cryogenic Department Head Jay Theilacker said about the plaque, which is mounted at the entrance of the CHL building and was paid for with donations from Cryogenic Department personnel.

Walker started his Fermilab career in 1972, working on the 30-inch bubble chamber physics experiment. He later worked on the 15-foot bubble chamber and then moved to the Accelerator Division's Cryogenic Department, where he became Deputy Head in 1990. Walker was instrumental in the construction of the Central Helium Liquefier used to cool the Tevatron, Theilacker said. "More than 20 years after its commissioning, Fermilab's CHL remains the world's

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

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

Send comments and suggestions to [today@fnal.gov](mailto:today@fnal.gov)

[Hurricane Relief Page](#)

[Fermilab Today archive](#)

[Fermilab Today PDF Version](#)

[Fermilab Result of the Week archive](#)

[Fermilab Safety Tip of the Week archive](#)

[Linear Collider News archive](#)

[Fermilab Today classifieds](#)

[Subscribe/Unsubscribe to Fermilab Today](#)

a crisis, so last summer, we pulled together different groups in AD. We put together special groups for the Antiproton Source, the Main Injector, the Recycler, the Booster and the Tevatron. We broke all the issues down into tasks, and then we really focused our efforts."

McGinnis, Associate Division Head for Accelerator Systems, emphasized the Rapid Response Team's difference from a standing SWAT-type team: teams and team members change depending on the challenge, and anyone can be selected as a leader. In this case, McGinnis was tapped for his experience as a former head of the Antiproton Source. The team has approximately 20 members and meets twice a week to chart results and strategy.

Their overall focus, as in the focus for the upgrades, was increasing luminosity in the Tevatron by increasing the number of antiprotons. The three-part strategy comprises increasing the antiproton production rate; providing a third stage of antiproton cooling with the Recycler; and increasing the transfer efficiency of antiprotons to the Tevatron. The Rapid Response Team focused on one of the three limiting factors to luminosity: the number of antiprotons.

[Read More](#)

—*Mike Perricone*

**ILC NewsLine****Role of ECFA ILC Study Meetings**

largest helium liquefier."

Because Walker was a scientist in a facility composed mostly of engineers, he brought a different perspective to solving problems, Theilacker said. In 1983, Walker received an Industrial Research Award for developing an arc cell, which measured helium purity and helped make the cryogenic system more reliable. "Ron loved difficult problems, the more difficult the better," Theilacker said. "It wasn't unusual for him to work day and night. Once he got going, there was no stopping him."

Walker's wife, Jane Walker, unveiled the plaque at the dedication. "I feel very honored on Ron's behalf," she said. "(Fermilab) was a very major part of his life. He was dedicated and he loved his work."

—*Kendra Snyder*

**Announcements****Travel Office Holiday Schedule**

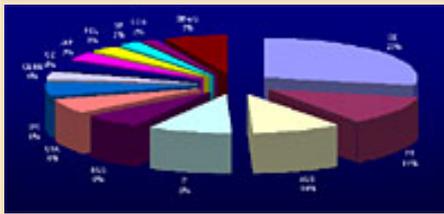
Please note the Travel Office will be closed the following days for the Holidays: Dec 23, Dec 26, Dec 30 and Jan 2. Please make plans to pick up airline tickets and arrange travel on dates other than the above. The Travel Office staff wishes you all Happy Holidays!

**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



Participants' nationalities (click to enlarge) at the ECFA workshop 2005 on physics and detectors at the ILC in Vienna.

On 14-17 November, the European Committee for Future Accelerators (ECFA) sponsored an ILC workshop in Vienna, Austria. François Richard, chairman of the "Organizing Committee ECFA Study of Physics and Detectors for a Linear Collider" and GDE member, explained the purposes of these workshops.

[Read More](#)

#### In the News

### DOE Press Release: December 1, 2005

#### DOE Awards \$6.3 Billion Contract Extension for Oak Ridge National Laboratory

OAK RIDGE, TENN. -- The U.S. Department of Energy has awarded a five-year, \$6.3 billion extension to its current management and operating contractor, UT-Battelle, LLC, for the continued operation of the Oak Ridge National Laboratory (ORNL) in Oak Ridge, Tenn., the Department's Under Secretary David Garman announced during remarks to the East Tennessee Economic Council today.

[Read More](#)

Fermilab Today.

#### [Upcoming Activities](#)