

Calendar

Friday, July 2

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

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

Speaker: P. Giromini, INFN, Frascati

Title: Evidence for Pair Production of Jets
with an Anomalous Lepton Content at the
Tevatron

Monday, July 5

Fourth of July Holiday

Tuesday, July 6

Noon Summer Lecture Series - 1 West

Speaker: H. Prosper, Florida State
University, Tallahassee

Title: Relativity in the Everyday World

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

THERE WILL BE NO ACCELERATOR
PHYSICS AND TECHNOLOGY
SEMINAR TODAY

Wilson Hall Cafe

Friday, July 2

Beef pepper pot soup

Buffalo Chicken Wings \$4.75

Cajun Breaded Catfish \$3.75

Spaghetti with Meat Sauce \$3.50

Honey Mustard Ham & Swiss Panini
\$4.75

Double Stuffed Pizza \$2.75

Spicy Marinated Flank Steak \$4.75

[Wilson Hall Cafe Menu](#)

[Chez Leon](#)

Weather

Fermilab Inaugurates StarLight Connection

Officials at Fermilab announced yesterday a potential five-hundredfold increase in the laboratory's computer network connections to U.S. and international science communities. A new high-performance optical

fiber link will connect Fermilab with one of the most advanced optical networking facilities in the world-the Science Technology And Research Light-Illuminated Gigabit High-Performance



Transit facility on the Chicago campus of Northwestern University.

StarLight is a high-performance network exchange for many worldwide research and educational wide-area networks. A 92-kilometer optical fiber connects Fermilab with the StarLight facility, enhancing Fermilab's high-speed connectivity with universities and institutions in North and South America, Europe and Asia. Such advanced networks are necessary in the global field of particle physics-scientists from 31 countries currently collaborate on Fermilab experiments.

[read more](#)

Correction

Photographer Peter Ginter Builds Unique Image Archive



Peter Ginter setting up his photographic equipment at MiniBooNE. (Click on image for larger version.)

On Wednesday, world famous photographer Peter Ginter returned to Germany after spending 10 days at Fermilab photographing employees and experimental equipment. "I was able to get a lot of work done because everyone was so gracious," said Ginter, who completed 25 photo shoots. "Everything was perfectly organized, which put more pressure on me because I had no excuses." In addition to photographing installations such as the NuMI horn, BTeV test stand, and the Main Injector, Ginter took a time-lapse photo of the Booster ring from the tenth floor of Wilson Hall, which involved three circling fire trucks and contributions from a crew of 16 people.

"He's earned his reputation in photography by working seven days a week, day and night, but he still gets excited when faced with a challenging photo," said Fred Ullrich of VMS, who helped organize the time-lapse photograph. "His ability to preconceive a great picture is a really unique gift."



Mostly Sunny 84°/66°

[Extended Forecast](#)

[Weather at Fermilab](#)

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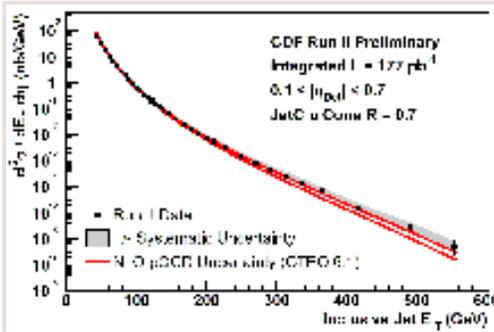
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Measured inclusive cross section as a function of jet transverse energy compared to NLO pQCD predictions. Jets are searched for using the CDF Run I cone algorithm. (Click on image for larger version.)

The above graphic was accidentally omitted from yesterday's Result of the Week, "[Inclusive Jet Studies - How small is a quark?](#)". *Fermilab Today* regrets the error.

In the News

From *PhysicsWeb*, July 1, 2004

New shift seen in cyclotrons

A subtle change in the motion of charged particles in magnetic fields has been discovered by physicists in the US. David Pritchard and colleagues at the Massachusetts Institute of Technology have shown that the resulting shift in the cyclotron frequency of the particle can be used to measure its quantum state (*Nature* 430 58). The effect could be used to measure the dipole moments of molecular ions, test fundamental symmetries, and weigh individual chemical bonds.

Cyclotrons are routinely employed to compare the masses of molecules and study chemical reaction rates. The cyclotron frequency is given by the simple formula qB/m , where q and m are the charge and mass of the particle and B is the magnetic field. However, Pritchard

To get a "great picture," Ginter photographs a piece of equipment several times under different lighting conditions, then uses a computer program to stitch all of the photos together. The end result is a colorful, multilayered picture that makes even the most mundane hardware appear exotic.

"We want to thank all of the 100 people involved in making this a success," said Kurt Riesselmann of Public Affairs, Ginter's guide and assistant when he was on site. "He worked like crazy, but our employees were able to keep up with and accommodate him."

Announcements

Weekly Time Sheets Due Today

Due to the upcoming July 4th holiday, weekly time sheets are due in Payroll by 10:00 a.m. on Friday, July 2.

Recreation Office Muscle Toning Class Registration Deadline Today

The next Muscle Toning Class will be held from July 6 through July 29. This 4 week class is \$32.00. Classes are held on Tuesday and Thursday in the Recreation Facility exercise room. Registration deadline is Friday, July 2. You must be a current facility member to participate. Registration can be made in the Recreation Office, by mail (registration form found on the Recreation webpage) or by phone using a credit card.

Children's Treasure Hunt - Registration Deadline July 5

A Children's Treasure Hunt, for children 5 - 12 yrs. of age, will be held at the Village Pool on July 23 from 9 AM - 11:00AM. This two-hour event offers an introduction to the safe use of snorkeling gear and the

and co-workers have discovered that this formula needs to be tweaked for particles that can be polarized. This happens because an electric dipole moment is induced in the particle and the two ends of the dipole move at slightly different speeds. The end result is that the cyclotron frequency is shifted by a small amount.

[read more](#)

aquatic environment. Registration can be made in the Recreation Office. The deadline to register is July 5. No refunds will be made after the deadline date unless class is canceled. Registration forms can be found on the Recreation web page or in the Recreation Office.

New Classified Ads Posted on Fermilab Today

New [classified ads](#) have been posted on Fermilab Today. A permanent link to the classifieds is located in the bottom left corner of Fermilab Today.

Free English Classes

NALWO-sponsored free English language classes for beginning and advanced levels are Fridays at the Users Center from 9:30 a.m. to 11:00 a.m.