

Calendar

Thursday, August 17

2:15 p.m. Hadron Collider Physics

Summer School Open Lecture -
Auditorium

Speaker: M. Strassler, University of
Washington

Title: Beyond the Standard Model - 3

2:30 p.m. Theoretical Physics Seminar -
Curia II

Speaker: U. Baur, State University of
New York, Buffalo

Title: Weak Boson Emission in Hadron
Collider Processes

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

3:45 p.m. Hadron Collider Physics
Summer School Open Lecture -
Auditorium

Speaker: D. Green, Fermilab

Title: First Years LHC Experiment
Program - 1

4:00 p.m. Accelerator Physics and
Technology Seminar
Curia II (note location)

Speaker: D. Swenson, Epion Corporation

Title: Improving the Performance of SRF
Cavities and Other High Voltage
Electrodes by Treating the Surfaces with
Gas Cluster Ion Beams (GCIB): Can a
Perfect Electrode be Manufactured and
Tested?

Friday, August 18

9:00 a.m. Hadron Collider Physics
Summer School Open Lecture -
Auditorium

Speaker: D. Green, Fermilab

Title: First Years LHC Experiment
Program - 2

11:30 a.m. Hadron Collider Physics

Come to Computer Security Awareness Day, August 22

Computer Security Awareness Day will be held Tuesday, August 22, from 9:00 am - 4:00 pm in the Atrium of Wilson Hall. This year's demonstration kiosks have been expanded to include more interactive activities to help you keep your system and personal information safe at work and home. Seven major topics will be addressed:

- Protecting your credit: Can thieves 'listen' to your credit card?
- Wipe after you Swipe: protecting against biometric theft
- The password cubicle: how *not* to store passwords
- Good practices at cash machines
- Ancient encryption methods still in use today
- Reading between the lines of bar codes
- Seeing the unseen: How fingerprints can give up your identity

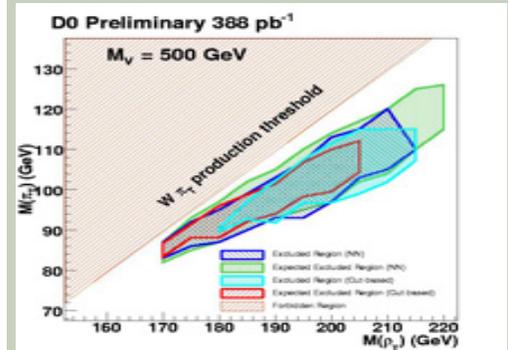
In addition to the kiosks, 1-hour presentations will be held in 1 West. Given the recent phishing scams targeting Argonne Credit Union members, we encourage everyone to brush up on staying safe online:

- Phishing and Spyware (WH1W, 12:00 - 1:00 pm, bring your lunch and questions)
- Secure online transactions: Public Key Infrastructure and Certificates (WH1W, 1:00-2:00 pm)

There are three computer security

Fermilab Result of the Week

Searching for a fifth force



Plot of ρ techni-mass versus π techni-mass. The contours show the sensitivity of the search and the region excluded by DZero.

In the standard model, the masses of particles are believed to be acquired via the Higgs mechanism. This theoretical principle involves a new fundamental scalar particle, the Higgs boson (scalar particles have a zero value for the quantum number for spin). However, no Higgs boson has been observed and this mechanism cannot yet be verified. Furthermore, due to their interactions with other particles, fundamental scalar particles have masses which are unstable to quantum fluctuations and can thus appear to be very massive unless some mechanism protects against this behavior. The SM does not provide any physical principle that does this for the Higgs boson. Thus, there must be a more general theory that can either supply this principle, or simply do without the Higgs boson as the proposed theory of Technicolor theory does.

Technicolor is a fifth force that acts on new fundamental particles and forms bound states much like the well-known QCD strong force that gives rise to bound states of quarks, such as the pion,

Summer School Open Lecture -
Auditorium

Speaker: C. Hill, Fermilab

Title: Explorations of the TeV Scale

3:30 p.m. DIRECTOR'S COFFEE

BREAK - 2nd Flr X-over

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

Speaker: U. Baur, State University of
New York, Buffalo

Title: Precision Calculations for the ILC
and LHC

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

Weather



Chance of Showers **80%/65°**

[Extended Forecast](#)

[Weather at Fermilab](#)

Current Security Status

[Secou Level 3](#)

Wilson Hall Cafe

Thursday, August 17

-Santa Fe Black Bean

-Sloppy Joe

-Stuffed Peppers

-Sauteed Liver & Onions

-Baked Ham & Swiss on a Ciabatta Roll

-Assorted Slice Pizza

-Crispy Fried Chicken Ranch Salad

[Wilson Hall Cafe Menu](#)

Chez Leon

training courses that all employees are required to take at some point. If you still need to complete one, you can take the course in 1 West:

- Security Essentials for Sysadmins (WH1W, 9:00-10:00 am)
- Security Essentials for Desktop Admins (WH1W, 10:00-11:00 am)
- Basic Computer Security Training (WH1W, 2:00-3:00 pm)

--Mark Leininger

Italy, France and Spain play against the rest of the world



The Germany team played against the US-UK team yesterday. Finals, between the Italy-France-Spain team and the 'rest of the world' team, will take place today at 1:00 p.m.

As the Hadron Collider Physics Summer School at Fermilab draws to a close, lunch-time soccer games between summer school students are also ending. The final game will be today from 1:00 p.m. to 2:00 p.m. on the soccer field in the Fermilab Village.

The first game was played Tuesday at lunch-time, and another was played yesterday. About 30 students participated. "We wanted to have a way for people to get together in the middle of the day and socialize," said Soccer-league organizer Jan Heyninck, a PhD student from Free University in Brussels, Belgium.

rho meson and proton. There will be analogous bound states with spin zero (called techni- π) and spin one (called techni- ρ and techni- ω). The spin zero bound states fulfill the Higgs boson's functions, eliminating the need for a fundamental Higgs scalar.

If technicolor exists, these particles might be light enough to be produced at the Tevatron. Physicists from the DZero experiment searched through their data--about 360 inverse picobarns worth--for techni- ρ 's that decay to a W boson and a techni- π . Within the range of sensitivity the data agree well with the standard model and no techni-particles were found. As more data are collected, these searches will provide much-needed insight and constraints on extensions to the Standard Model.



Thursday, August 17**Dinner**

Closed

Wednesday, August 23

-New Potato, Kielbasa and Gruyere Salad

-Strawberry Shortcakes

[Chez Leon Menu](#)

Call x4598 to make your reservation.

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With so many international students, Heyninck decided to organize the teams by region. The four teams are Germany, UK-US, Italy-France-Spain, and the rest of the world. "We had to put France and Italy together to avoid problems after the world cup," he said with a smile.

Heyninck, who plays for the "rest of the world team," said today's final game will be between his team and Italy-France-Spain, because they were Tuesday's winners. "Everyone is welcome to come down and watch the final game at 1:00," he said.

--Siri Steiner

See the Drug Sniffing Dogs



The Drug Sniffing Dogs, last year at the Users' Center.

Fermilab's rock band, The Drug Sniffing Dogs, will play at the Users' Center at 7:30 p.m. on Friday, August 18. "The show will feature songs you like to sing along to at wedding reception parties," said band member and CDF physicist Ben Kilminster.

--Siri Steiner

In the News

DooKee Cho (Boston University), Lorenzo Feligioni (Boston University graduate student, now at CPPM, Marseille), Meenakshi Narain (Boston University), and Suyong Choi (SungKyunKwan University, Korea) performed the experimental search. The experimental group consulted theorist Kenneth Lane (Boston University) during the analysis.



PPD Tech Center personnel were key contributors to the successful installation of DZero's Layer-0 detector during the recent shutdown. Dave Butler (left foreground) and Ken Schultz (left background) were in the south gap of the DZero detector in the photo on the left. Mike Roman (right foreground) and Bert Gonzalez (right background) were in the north gap in the photo on the right.

[Result of the Week Archive](#)

Accelerator Update

Accelerator Update will take a break while author Bruce Worthel is away from the lab. The update will return in approximately two weeks.

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

Announcements

Dell recalls laptop batteries

Dell Computer has announced a recall of certain batteries manufactured by Sony Corporation for Latitude, Inspiron, Precision and XPS laptops. The batteries were shipped to customers between April 1, 2004 and July 18, 2006. Dell has established a [web site](#) that provides information on identifying and returning affected batteries. If you have a battery on this list, you should remove it from your computer immediately. You may continue to use your notebook computer using the AC adapter power cord originally provided with your notebook.

New Scientist
August 12, 2006:**Loop quantum gravity increases its pull**

The accepted idea of matter is that it is made up of minuscule particles guided by quantum force fields. This is already far removed from the common-sense view that matter is, well, just chunks of stuff. If that seems hard enough to take, then brace yourself for another step away from common sense.

Theoretical physicists working in the rarefied field of loop quantum gravity have developed a way to describe elementary particles as merely tangles in space (see "Out of the void"). If they are right, it could be the most profound scientific generalisation of all time, in which everything in the universe emerges from a simple network of relationships, with no fundamental building blocks at all.

[Read More](#) (registration required)

Please note that only the battery packs are subject to this recall and not the notebook computers themselves.

English country dancing

English country dancing will next meet on Sunday, August 27, at 2 p.m. in Fermilab's Barn (or in the auditorium if the weather is excessively warm).

Newcomers are welcome; partners and previous experience are not required.

Please contact folkdance@fnal.gov or call 630-584-0825 or 630-840-8194.

[Upcoming Activities](#)