

Calendar

Thursday, February 17

9:00 a.m. Computing Techniques

Seminar - FCC1W

Speaker: D. Pearson, Indiana University

Title: Grid Operations - Grid3 Experience and the iGOC

2:30 p.m. Theoretical Physics Seminar -

Curia II

Speaker: S. Moch, DESY, Zeuthen

Title: Deep-Inelastic Scattering in QCD – At the Frontier of Perturbation Theory

3:30 p.m. DIRECTOR'S COFFEE

BREAK - 2nd Flr X-Over

THERE WILL BE NO ACCELERATOR

PHYSICS AND TECHNOLOGY

SEMINAR TODAY

Friday, February 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: R. Kowalewski, University of Victoria

Title: BaBar Results on Semileptonic B Decays

Weather



Chance of Flurries **25%/10°**

[Extended Forecast](#)

[Weather at Fermilab](#)

Current Security Status

[Secou Level 3](#)

Wilson Hall Cafe

Witherell Addresses Budget To All Hands Today

Director Michael Witherell will discuss "The Budget and Prospects for the Future" at three All-Hands meetings today in Ramsey Auditorium. The three sessions will be organized alphabetically by the last names of employees: A-G at 10 AM, H-O at 1 PM, and P-Z at 3 PM. There is no streaming video. The 10 AM meeting will be available on labwide TV on channel nine (9).

Fermilab Arts Series Presents Festival of Four

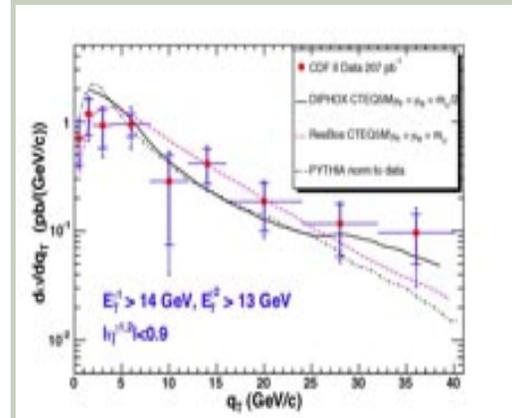


(From left) Richard Patterson (guitar), Viviana Guzman (flutes), Marc Teicholz (classical guitar), and Guillermo Rios (flamenco guitar). (Click on image for larger version.)

Festival of Four is a unique blend of two classical guitars, flamenco guitar and flute; it is an exotic cross between the Los Angeles Guitar Quartet, Quartetto Gelato and The Gipsy Kings. The sonic colors created by Chilean-born flutist Viviana Guzman with her collection of over 100 flutes from diverse cultures, the skills of international award-winning guitarist Marc Teicholz, the breathtaking rhythms of flamenco guitar virtuoso Guillermo Rios and the composition and arranging talents of guitarist Richard Patterson combine to shatter the boundaries of traditional

Fermilab Result of the Week

Fun With Two Photons At CDF For Publication



The CDF diphoton transverse momentum (q_T) distribution compared to several theoretical predictions. (Click on image for larger version.)

In collider experiments, interaction events having two photons among the final decay products ("diphoton final states") are a signature of many interesting physics processes. For example, at the LHC, one of the main discovery channels for the Higgs search is through the Higgs decaying into two photons. An excess of diphoton production at high invariant mass (high energies) could also be a signature of large extra dimensions, and in many theories involving physics beyond the Standard Model, certain decays of heavy new particles generate a diphoton signature. However, the QCD production rate for diphotons is large compared to most new physics, so an understanding of the QCD production mechanism is a prerequisite to searching reliably for new physics in these diphoton events. In addition, the two-photon final state is interesting in its own right, allowing for precision tests of many aspects of perturbative QCD.

Thursday, February 17

Tomato Florentine

Grilled Chicken Cordon Bleu Sandwich

\$4.75

Chimichangas \$3.75

Chicken Marsala Smart Cuisine \$3.75

Maryland Crab Salad \$4.75

Italian Sausage Calzone \$3.25

SW Chicken Salad with Roasted Corn

Salsa \$4.75

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

[Wilson Hall Cafe Menu](#)

[Chez Leon](#) will be closed through January and February

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chamber music and create a sound all their own.

The flamenco artist Guillermo Rios returned to the U.S. after 7 years touring with some of Spain's most respected flamenco dancers such as Jose Greco. Hailed by the New York Times as "an imaginative artist," flutist Viviana Guzman has been known to belly-dance on occasion during Festival of Four concerts. Both Guzman and Rios have played at such venues as Carnegie Hall, as well. Richard Patterson enjoys an active international career performing as a feature soloist in North and South America, Europe, Asia and Africa. Marc Teicholz, classical guitarist, has won numerous awards and is featured on the pilot soundtrack for George Lucas' Young Indiana Jones.

Festival of Four will perform this Saturday, February 17 at 8:00 p.m in Ramsey Auditorium. Tickets cost \$18/\$9 for ages 18 and under. For further information, visit our [Web page](#) or call (630) 840-ARTS (2787) weekdays between 9 a.m. and 4 p.m for telephone reservations. Will-Call tickets may be picked up, or available tickets purchased, at the lobby box office on the night of the event beginning at 7:00 p.m.

Accelerator Update

In the first QCD publication from Run II, a group of CDF researchers has measured the rate of diphoton production as a function of several kinematic variables. In the figure above, the diphoton transverse momentum (q_T) distribution is compared to the predictions from several theoretical programs: "resummed" ResBos, DIPHOX NLO (next-to-leading-order), and the parton shower Monte Carlo Pythia. Comparisons to other kinematic variables can be found in the paper (hep-ex/0412050). Good agreement is observed with the resummed and NLO predictions in different regions of phase space. For agreement, everywhere, however, a resummed full NLO calculation will be necessary, a challenge for the theoretical physicists.



Shown above is Yanwen Liu (originally from the University of Geneva, now a postdoc at Louvain-la-Neuve, Belgium) who performed this analysis for his thesis. Other authors include Bob Blair and Steve Kuhlmann (Argonne), Ray Culbertson (Fermilab), Joey Huston (Michigan State) and Xin Wu (Geneva).

[Result of the Week Archive](#)

Announcements

February 14 - February 16

- During this 48-hour period Operations established one store that combined with an existing store provided the experiments with approximately 30 hours and 19 minutes of luminosity.
- Vacuum problems halt Pbar's ability to stack
- Booster suffers from RF problems
- Recycler loses stash
- Main Injector has vacuum problems

[Read the Current Accelerator Update](#)

[Read the Early Bird Report](#)

[View the Tevatron Luminosity Charts](#)

In the News

From Stanford Report, February 15, 2005

"Quantum Diaries" reveal the secret lives of modern physicists

by Kathy Bellevin

What is it like to be a physicist in 2005, 100 years after Einstein pushed physics to a new frontier? A new website featuring researchers at Stanford and around the globe is helping answer that question by cataloging the daily lives of more than 25 physicists.

[Quantum Diaries](#) celebrates the World Year of Physics by recording the experiences, thoughts, impressions, triumphs and disappointments of these men and women in their blogs, which is short for weblogs, or web-based logs.

The response so far has been stunning. Quantum Diaries was launched on Jan. 13 and garnered more than 45,000 visits by the end of the month. Some of the physicists' weblogs are getting nearly 1,000 visits per day.

[read more](#)

Fermilab Film Series

The Fermilab Film Series will present [Twelve Monkeys](#) on Friday, February 18 at 8:00 p.m. in Ramsey Auditorium. Tickets are \$4.00.

Change in pay stubs for Fermilab employees

Due to increasing concern over identity theft, Payroll will no longer print Social Security numbers on pay stubs.

Fermilab Blood Drive

The next Fermilab Blood Drive will be February 21st & 22nd from 8:00 a.m. to 2:00 p.m. on WH Ground Floor NE. Schedule an appointment [online](#). Walk-ins are welcome!

EPS High Energy Particle Physics Prizes 2005

The EPS HEPP Board is calling for nominations for the EPS High Energy Particle Physics Prizes in 2005. These prizes include the High Energy and Particle Physics Prize, the Young Physicist Prize, the Gribov Medal and the Outreach Prize. A complete list of prizes and regulations is available [online](#). The deadline for nominations is April 15, 2005. The prizes will be awarded in a ceremony on July 25, 2005 during the International Europhysics Conference on HEPP, Lisbon.

[Upcoming Activities](#)

