

Calendar

[Have a safe day!](#)

Thursday, June 18
2:30 p.m.

[Theoretical Physics Seminar](#) -

Curia II

Speaker: Sebastian Klein,
DESY Zeuthen

Title: Moments of the 3-Loop
Corrections to the Heavy
Flavor Contributions to F_2 for

$Q^2 \gg m^2$

3:30 p.m.

DIRECTOR'S COFFEE
BREAK - 2nd Flr X-Over
4 p.m.

[Accelerator Physics and
Technology Seminar](#) - One

West

Speaker: Peter McIntyre,
Texas A&M University

Title: PETAVAC: 100 TeV
Proton-Antiproton Collider in
SSC Tunnel

Friday, June 19

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

[Joint Experimental-Theoretical
Physics Seminar](#) - One West

Speaker: Jonathan Feng,
University of California, Irvine
Title: Recent Developments in
Dark Matter and Implications
for Colliders

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

Campaigns

[Take Five](#)

[Tune IT Up](#)

Weather

Special Announcement

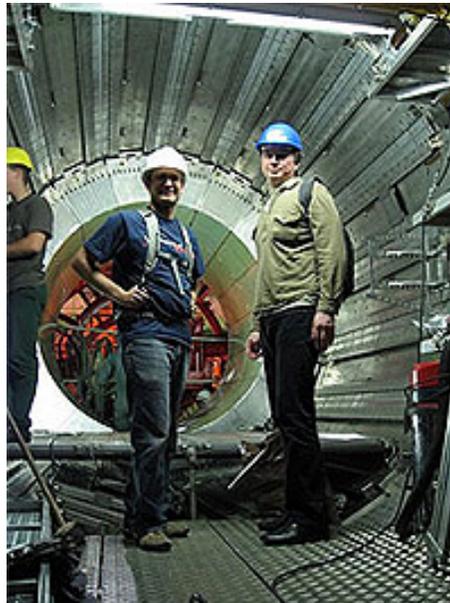
All-hands meeting Friday

An all-hands meeting will take place at 11 a.m. on Friday, June 19, in Ramsey Auditorium. Director Pier Oddone will discuss the focus group reports and how the laboratory plans to address the findings.

Employees can prepare for the meeting by reading and discussing the [focus group reports](#).

University Profile

University of Virginia



University of Virginia graduate student Michael Balazs and research scientist Alexander Ledovsky in the CMS solenoid.

NAME:

[University of Virginia](#)

HOME TOWN:

Charlottesville, Va.

MASCOT:

Cavalier

SCHOOL COLORS:

Orange and blue

PARTICLE PHYSICS

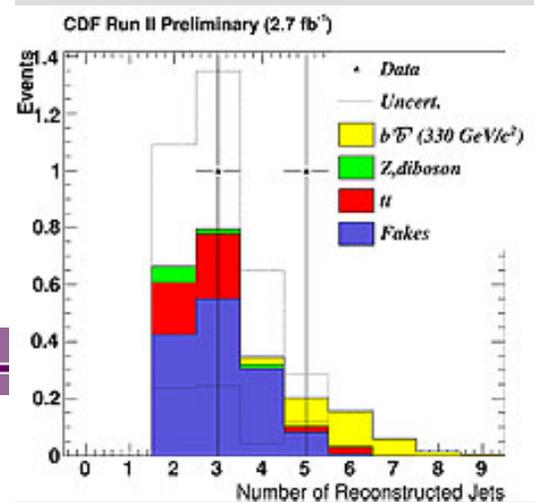
COLLABORATIONS:

CDF, DZero, CMS, Mu2e, NOvA, HyperCP, KTeV

EXPERIMENTS AT FERMILAB:

Fermilab Result of the Week

A 'prime' analysis



The distribution of expected events for the number of jets for the $b\bar{b}$ signal and the relevant backgrounds. A b' signal would show up as an excess of events with a large jet multiplicity.

The Standard Model of particle physics contains three generations of quarks. Although these three generations explain a vast quantity of precise experimental data, there is no fundamental reason why a fourth generation of quarks should not exist. This week, we present the result of a search by CDF for a fourth-generation quark, which we call b' (b -prime).

If a fourth generation quark exists, it would be very massive and difficult to discover directly. For example, the Tevatron's discovery of the top quark 15 years ago took a large effort, mostly due to the particle's enormous mass, which is nearly equal to the mass of a gold atom, and its rare production even in high-energy collisions.

If it exists, the b' might decay to a top quark and a W boson. Physicists believe the particle would be produced in pairs and would have two top quarks and two W bosons as its signature. Physicists could clearly observe this signature. The decays of the top quarks and W bosons can produce two high-energy electrons or muons of the same electric charge. The signature would also have telltale signs, such as evidence of a bottom quark and an energy imbalance from unmeasured neutrinos.

This signature would be very rare from other



 Chance of showers
81°/66°

[Extended Forecast](#)
[Weather at Fermilab](#)

Current Security
Status

[Secon Level 3](#)

Wilson Hall Cafe

Thursday, June 18

- Southwestern chicken tortilla
- Philly-style cheese steak
- *Garlic herb roasted pork
- Mardi Gras jambalaya
- *Southwestern turkey wrap
- Assorted sliced pizza
- *Marinated grilled chicken Caesar salads

*Carb restricted alternative

[Wilson Hall Cafe menu](#)

Chez Leon

Thursday, June 18

- Dinner
- Crab cakes w/spicy red pepper sauce
 - Bleu cheese crusted filet mignon
 - Potato croquettes
 - Sautéed zucchini
 - Chocolate hazelnut soufflé

Wednesday, June 24

- Lunch
- Southeast Asian grilled beef salad
 - Pineapple flan

[Chez Leon menu](#)

Call x3524 to make your reservation.

Archives

CDF, DZero, Mu2e, NOvA, HyperCP, KTeV

SCIENTISTS AND STUDENTS AT FERMILAB:

Four professors, two emeriti, one research scientist, one postdoc, four graduate students, two 2009 Ph.D.s, and four undergraduates.

COLLABORATING AT FERMILAB SINCE:
1988

MAJOR CONTRIBUTIONS:

Construction and operation of DZero Level 2 and CTT trigger systems; one postdoc served as DZero Run Coordinator. Design and implementation of NOvA DAQ subsystems, detector controls, power distribution and monitoring systems; construction of NOvA near-detector prototype. Construction of HyperCP calorimeter; one professor served as HyperCP spokesman. Calibration of KTeV calorimeter; commissioning and operations of trigger and TRD systems. Observation of largest CP violation yet observed as well as first in a kinematic distribution in $K_L \rightarrow \pi\pi\pi e$ mode.

RESEARCH FOCUS:

CP violation and neutrino mixing, electroweak and Higgs physics, QCD.

WHAT SETS PARTICLE PHYSICS AT UNIVERSITY OF VIRGINIA APART?

Worldwide research efforts centered at a historic university in a unique and lovely sylvan setting.

FUNDING AGENCY:

Department of Energy

FAVORITE NATIONAL LABORATORY:
Fermilab

View all [University profiles](#)

Tune IT Up

processes. In five years' worth of analyzed data, CDF expected only two events from background processes. A fourth-generation quark would leave its mark with several more events.

When the data were analyzed, only two events satisfied the requirements, allowing CDF to rule out the existence of a b' particle if the particle's mass is less than 325 GeV, nearly twice the mass of the top quark.

[Read](#) more information on this new result.

-- edited by Craig Group



This analysis was conducted by two CDF scientists from UC Irvine: Daniel Whiteson (bottom right), and Matthew Hickman (bottom left), and two visiting collaborators: David Berge of CERN (top left) and Michael Wilson of SLAC National Accelerator Laboratory (top right).

Director's Corner Q&A

Q&A with Pier Oddone now online

In the first of a series of exchanges, Fermilab Director Pier Oddone wrote the Director's Corner for the June 5 issue of the *CERN Bulletin*. Readers were encouraged to ask him questions. The lone question and its answer is now online. Read it [here](#).

Special Announcement

[Fermilab Today](#)[Result of the Week](#)[Safety Tip of the Week](#)[User University Profiles](#)[ILC NewsLine](#)**Info****Fermilab Today**

is online at:

www.fnal.gov/today/

Send comments and suggestions to:

today@fnal.gov

Visit the Fermilab [home page](#)

Phishing for summer students

The laboratory is busy welcoming its new group of summer students. As these students are set up with computer accounts, we want to remind mentors and students to think about computer security practices.

Students, who are unfamiliar with how accounts are handled at the laboratory and don't know which messages are legitimate, can be fooled by phishing e-mails or fall prey to scams.

To prevent students from accidentally compromising machines, mentors should remind them of laboratory computer security practices, including:

- Lock computer screens when you walk away from them
- Never insert media from someone you don't know or trust (flash drive, cd) into your computer. Instead, direct them to the Servicedesk, located on the ground floor of Wilson Hall.
- Don't click on links in e-mails if you can't verify the source.
- Don't open attachments from sources you don't know or in e-mails that seem suspicious.
- Never reveal your passwords to anyone at the laboratory for any reason: not to your supervisor, system manager or the computer security team. Never send passwords to anyone who asks for it via e-mail.

The message below was widely circulated at the laboratory by someone trying to trick people into giving up their account information and date of birth. This message is NOT legitimate:

From: Helpdesk Mail Support
 Sent: Saturday, May 02, 2009 3:36 AM
 To: helpdesk@webmaster.com
 Subject: Confirm Your WebMail Details

Dear Webmail Account User

This message is from the Webmail IT Service messaging center to all account owners. Due to the incessant rate of Spam we are currently performing maintenance and up-grading our Digital webmail services for your convenience.

We are deleting all unused webmail account to create more space for new accounts. To prevent your account from closing during this

Auditor presentation canceled

The Safeguards and Security Audit presentation scheduled for 10:30 a.m. this Friday, June 19, was canceled due to the Director's All-hands meeting scheduled for that morning. *Fermilab Today* will announce a new date and time as soon as possible.

Announcements**Latest Announcements**

[Volunteers needed for Fermilab Prairie Quadrat Study - June 30](#)

[MATLAB software tools 75 percent off for Fermilab - July 15](#)

[East lab gate closed June 22-26](#)

[Free upper body 30-minute workout - June 25](#)

[ACU car buying tips demo June 24](#)

[Time to complete accomplishment reports](#)

[Bike to Work Week June 13-19](#)

[Pool memberships available in the Recreation Department](#)

[Argentine Tango classes take place through June 24](#)

[Fermi Kyuki-Do Martial Arts session begins on June 22](#)

[Toastmasters meeting June 18](#)

[NALWO "A Summer Evening Potluck Picnic"](#)

[English Country Dancing, June 21](#)

[Donors needed for Fermilab Blood Drive June 23 & 24. Give a pint - Get a quart of Oberweis Ice Cream](#)

[Environmental Safety and Health Fair - June 29](#)

[Discounted rates at Grand Geneva Resort, Lake Geneva, WI](#)

[Interaction management and performance review courses](#)

exercise you will have to update it below to know it's status as a currently used account with a hard spam protector.

Confirm Your WebMail Details;

User Name:

Password:

Date of Birth:

If you receive any suspicious e-mails to your laboratory account, show it to your supervisor and ask for help. Messages that come from laboratory staff include a telephone number you can call to verify the e-mail's authenticity. Each computer user at Fermilab is our first line of defense against phishing exploits. Please be careful and enjoy your summer.

For more information on computer security risks and solutions, or to ask questions, visit the [Tune IT Up campaign Web site](#).

-- Mark Leininger, Fermilab's computer security manager

[scheduled for summer 2009](#)

[SciTech Summer Camp discount- July 6](#)

[Intermediate/Advanced Python Programming July 22-24](#)

[Process piping \(ASME B31.3\) class offered in October](#)

[Python Training June 17-19](#)

[Additional Activities](#)

[Submit an announcement](#)