

Calendar

[Have a safe day!](#)

Thursday, August 27
2:30 p.m.

[Theoretical Physics Seminar](#) - Curia II

Speaker: Matthew Herndon,
University of Wisconsin

Title: An Inclusive Search for H →
WW at CDF

3:30 p.m.

DIRECTOR'S COFFEE BREAK - 2nd
Flr X-Over

THERE WILL BE NO
ACCELERATOR PHYSICS AND
TECHNOLOGY SEMINAR TODAY

Friday, August 28

3:30 p.m.

DIRECTOR'S COFFEE BREAK - 2nd
Flr X-Over

4 p.m.

[Joint Experimental-Theoretical](#)

[Physics Seminar](#) - One West

Speaker: Chris Quigg, Fermilab
Title: Gedanken Worlds without Higgs

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

Campaigns

[Take Five](#)

[Tune IT Up](#)

Weather



Heavy rain
70°/58°

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

Current Security Status

[Secon Level 3](#)

University Profile

University of Washington



Top from left: John BackusMayes, current graduate student;
Aran Garcia-Bellido, former post-doc, now DZERO member
with U Rochester; and Gordon Watts, professor. Bottom from
left: Anna Goussiou, professor; Henry Lubatti, professor; and
Tyler Dorland, graduate student.

NAME:

[University of Washington](#)

HOME TOWN:
Seattle, Washington

MASCOT:
Husky

SCHOOL COLORS:
Purple and gold

PARTICLE PHYSICS
COLLABORATIONS:
DZero and ATLAS

EXPERIMENTS AT FERMILAB:
DZero

SCIENTISTS AND STUDENTS AT
FERMILAB:
Three graduate students

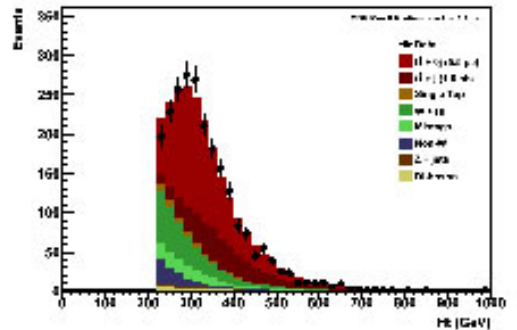
COLLABORATING AT FERMILAB
SINCE:
1970

MAJOR CONTRIBUTIONS TO
FERMILAB EXPERIMENTS:
Installation of Run 2 forward muon system; design and
fabrication of SMT Layer 0, single top evidence,
introducing boosted decision trees to DZero, the Level 3
DAQ/Trigger at DZero, b-tagging.

PARTICLE PHYSICS RESEARCH

Fermilab Result of the Week

Studying the LHC haystack at the Tevatron



The sum of transverse energy in the detector predicted by theory and measured in data. Several processes contribute to the prediction, including top+jets events shown in dark red. At the LHC, scientists expect the contribution by top+jets events to be overwhelming.

The top quark hasn't been produced in abundance since shortly after the Big Bang, but when the LHC is running, scientists around the world expect to be able to study millions of these rare particles. The LHC's collision energy will make it a top factory, and scientists expect it could produce 8 million top quark events in a single year.

However, those top events will not be as clean as the events produced at the Tevatron. The powerful collisions produced at the LHC will create top events and additional energetic jets, or particle sprays. These jets will obscure both scientists' understanding of top events and any possible new physics hiding within them. The rate of top + jet events is predicted by very complicated theoretical calculations, which have not been tested by experiment until now.

Scientists at the CDF experiment at Fermilab have used collisions from the Tevatron to measure the first cross section of top pair events produced in association with these extra jets. The result ($\sigma_{t+\text{jet}} = 1.6 \pm 0.5$

picobarns) is in good agreement with the theoretical prediction ($\sigma_{t+\text{jet}} = 1.8 \pm 0.2$ picobarns). This gives

scientists confidence that they can understand these events before looking for any exciting new particles and physics hidden within them.

-- Edited by Craig Group

Wilson Hall Cafe

Thursday, August 27

- Minnesota wild rice w/chicken
- Tuna melt on nine grain
- Italian meatloaf
- Chicken casserole
- Buffalo crispy chicken wrap
- Assorted sliced pizza
- *Mandarin chicken

*Carb restricted alternative

[Wilson Hall Cafe Menu](#)

Chez Leon

Thursday, August 27

Dinner

- Closed

Wednesday, September 2

Lunch

- Cabbage & bacon calzone
- Caesar salad
- Espresso mousse w/ cookies

[Chez Leon Menu](#)

Call x3524 to make your reservation.

Archives

[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](#)

FOCUS:

Low mass Higgs search

WHAT SETS PARTICLE PHYSICS AT UNIVERSITY OF WASHINGTON APART?

Excellent graduate students

FUNDING AGENCY:

National Science Foundation

FAVORITE NATIONAL LABORATORY:

Fermilab

View all [University profiles](#)

Special Announcement

Benefit for ES&H's Joe Leo

Joe Leo, a 26-year veteran of Fermilab, was injured this year in a skiing accident that left him paralyzed from the shoulders down. Friends and family have organized a fundraiser for him from 6 p.m. to midnight on Saturday in Warrenville. Food, a raffle and a live band will be on hand.

The ticket cost will go toward helping Leo purchase handicapped-accessible devices, including a shower chair, portable ramp, wheel chair-accessible van, medical supplies and voice-activated computer software.

More information may be found on Leo's [Web site](#).

More information on the benefit for Leo can be found in the most recent *Fermilab Today* [classified ads](#).

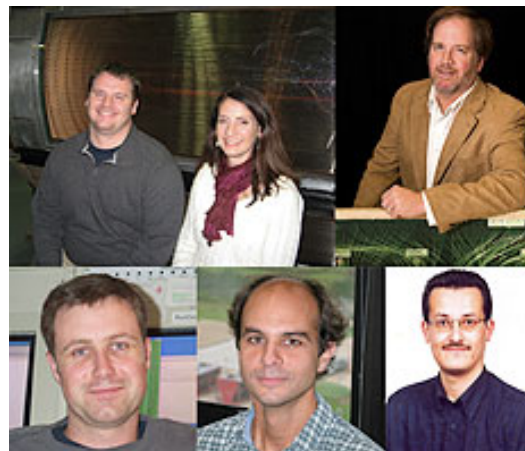
Photo of the Day

New employees - Aug. 24



Row one from left: Darrell W. Frye, BSS; Joshua Hall, WDRS; Barb Callahan, Finance; Aida Todri, CD; and Vadim Alexakhin, APC. Row two from left: Hans Jostlein, PPD; Steven Ward, AD; Vldy Valentin Osziel, WDRS; David Franck, AD; and Ben Hooberman, PPD.

In the News



From left to right, top to bottom: Tom Schwarz and Robin Erbacher, University of California-Davis; Joey Huston, Michigan State University; Gene Flanagan, Purdue University; Steve Mrenna, Fermilab; and Mohammad Hussein, Michigan State University.

Announcements

Latest Announcements

[New Lo Cardio Class - Sept. 14-Nov. 16](#)

[New Tai Chi For Health class- Sept. 14 - Nov. 16](#)

[Scrapbooking open house - Sept. 14](#)

[Melissa Clayton Lang's good-bye party Aug. 27](#)

[NALWO noon piano concert in Ramsey Auditorium - today](#)

[What's New in NI LabVIEW 2009? - today](#)

[Goldwasser 90th birthday](#)

[Bowlers wanted](#)

[Thai Village restaurant discount](#)

[Vacation policy changes for exempt employees - Sept. 1](#)

[Argentine Tango through Sept. 9](#)

[URA Visiting Scholars Program now accepting applications](#)

[Bristol Renaissance Faire discount tickets](#)

[Six Flags Great America discount](#)

Particle imbalance may upset the apple cart

From ***Science News***,
Aug. 26, 2009

Report hints at the existence of a new and massive elementary particle

In a weak moment, researchers have found an unexpected asymmetry in particle production that could hint at exotic physics. The tentative evidence, announced August 21, could be the fingerprint of a massive elementary particle that would help unify three of the four known forces in nature.

The physicists collected data for nearly a decade at the Belle particle accelerator experiment in Tsukuba, Japan. In the experiment, known as a B factory, beams of electrons and positrons collide to produce millions of pairs of B mesons and anti-B mesons. Such particles live brief but eventful lives, decaying through the weak nuclear force — the same force that powers some radioactivity and helps keep the sun burning.

[Read more](#)

[tickets](#)

[Raging Waves Waterpark online discount ticket program](#)

[Mosaico Hispanico - celebrating Hispanic music and dance - Sept. 19](#)

[English Country Dancing - Sept. 20](#)

[Sign up for fall Science Adventures classes](#)

[Muscle Toning Class - through Sept. 28](#)

[Yoga Class - Aug. 11 - Sept. 29](#)

[Office 2007 New Features class offered in September](#)

[Buttered Rum performs on Fermilab Arts Series Oct. 24](#)

[Fred Garbo Inflatable Theatre - at Fermilab Arts Series - Nov. 7](#)

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

["The Night Before Christmas Carol" at Fermilab Arts Series Dec. 5](#)

[Additional Activities](#)

[Submit an announcement](#)