

Calendar

[Have a safe day!](#)

Thursday, July 9
9 a.m. - 7:30 p.m.

[International Neutrino Summer School](#)

2:30 p.m.

[Theoretical Physics Seminar](#) - Curia II

Speaker: Satya Nandi, Oklahoma State University

Title: New Mechanism for Neutrino Mass Generation and Triply Charged Higgs Boson at the LHC

3:30 p.m.

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

THERE WILL BE NO

ACCELERATOR PHYSICS AND TECHNOLOGY SEMINAR TODAY

Friday, July 10

9 a.m. - 5 p.m. [International Neutrino Summer School](#)

3:30 p.m.

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

4 p.m.

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

Speaker: Andre De Gouvea, Northwestern University

Title: Neutrino Summer School: Possible Physics Surprises in Future Experiments

Saturday, July 11

8 p.m.

[Fermilab Arts Series](#) - Auditorium

Tickets: \$16/\$8

Ashley Lewis with Ashton Gap

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

Campaigns

[Take Five](#)

[Tune IT Up](#)

University Profile

University of Florida



University of Florida physicists at the University's physics department experimental hall stand next to a test-ready CMS endcap muon cathode strip chamber.

NAME: _

[University of Florida](#)



HOME TOWN:

Gainesville, Florida

MASCOT:

Gator

SCHOOL COLORS:

Orange and blue

PARTICLE PHYSICS

COLLABORATIONS:

CDF, CMS, CLEO, MiniBooNE, MINERvA, CDMS, Solid Xenon, LIGO, LISA and ADMX.

EXPERIMENTS AT FERMILAB:

CDF, MiniBooNE and MINERvA.

SCIENTISTS AND STUDENTS AT FERMILAB:

Since 1996, we have had 15 scientists and 12 students working on experiments at Fermilab.

COLLABORATING AT FERMILAB SINCE:

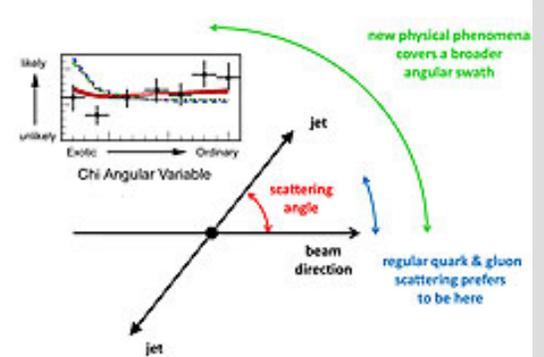
1996

MAJOR CONTRIBUTIONS TO FERMILAB EXPERIMENTS:

Construction and operation of a novel Cherenkov luminosity monitor detector for CDF, construction and operation of cathode strip chambers for the CMS endcap muon detectors, development of the CMS endcap muon L1 trigger, operation of a CMS Tier-2 computing site and development of strong high-performing computing facilities. Design and construction of a Xenon crystallization chamber for the Solid Xe experiment.

Fermilab Result of the Week

"X" marks the spot



Ordinary quark and gluon scattering preferentially occurs at small angles measured from the beam direction. Scientists expect that many new physical phenomena will be produced more uniformly. The inset plot shows data (black points), standard theoretical predictions (red) and various new physics predictions (dashed lines). The data clearly favors ordinary physics. These particular collisions involve half the energy delivered by the Tevatron – an extraordinarily large collision energy. Scientists can use these plots to rule out new physical phenomena for energies several times higher than the Tevatron's maximum beam energy.

Picture this. A muddy man, patch on one eye and a cutlass on his hip, walks alone with a shovel over his shoulder toward a ship flying a black and white flag. His most precious possession lies hidden deep in a pocket, a parchment with a large "X" marked on it to show the location of his treasure. DZero scientists think that "X" could also point the way to a trove of new physics.

DZero scientists have just completed an [analysis](#) in which χ , the Greek letter "chi," stands in for the "X" and plays a prominent role. Chi is a measure of the parton scattering angle. Partons are the particles (quarks and gluons) found inside protons and it is in the measurement of chi that DZero scientists have found real treasure.

The most common type of collisions observed at the Tevatron are ones in which partons from the beam particles are scattered. These quarks and gluons then convert into many particles, looking a bit like a shotgun blast. These blasts are called jets. They play a leading role in many physics analyses. The problem is that any detector will slightly mismeasure the energy of the particles in the jet, making jet measurements a tricky business indeed.

Detectors can also mismeasure the direction in which a jet is travelling, but this mismeasurement is much smaller. Thus if one could study the angle between the jet direction and the beam direction and interpret that measurement correctly, one could draw very precise

Weather



Mostly sunny
81°/65°

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

Current Security Status

[Secou Level 3](#)

Wilson Hall Cafe

Thursday, July 9

- Tomato Florentine
- *Pork BBQ sandwich
- Kielbasa & sauerkraut
- Chicken marsala
- Smoked turkey melt
- Assorted sliced pizza
- SW chicken salad w/roasted corn salsa

*Carb restricted alternative

[Wilson Hall Cafe Menu](#)

Chez Leon

Thursday, July 9

- Dinner
- Closed

Wednesday, July 15

- Lunch
- Maple bourbon glazed salmon
 - Roasted potatoes
 - Baby carrots w/dill
 - Caramel apple shortcake

[Chez Leon Menu](#)

Call x3524 to make your reservation.

Archives

Spokesperson in CDF, leadership roles in CDF's exotics, top and quantum chromodynamics groups and CMS's muon systems, trigger and Higgs group. Played key roles in CMS detector commissioning. Participate in CMS management boards. Helped lead MiniBooNE's anti-neutrino mode analysis and MINERvA's project management.

PARTICLE PHYSICS RESEARCH FOCUS:

Top quark physics, QCD, Higgs and searches for new physics in CDF and CMS. Searching for new charmed baryon states at CLEO and gravitational waves searches with LIGO and LISA. Dark matter searches including axions and WIMPs.

WHAT SETS PARTICLE PHYSICS AT UNIVERSITY OF FLORIDA APART?

The University of Florida has a very large high-energy physics experimental program. The group has broad experience in detector construction, computing, physics analysis and leadership positions in the experiments we participate on. We also have theorists that we collaborate closely with and some theorists who have joined some of the experiments we work on. All of these projects are part of the University of Florida's Institute of High Energy Physics and Astrophysics (IHEPA).

FUNDING AGENCY:

Department of Energy and National Science Foundation

FAVORITE NATIONAL LABORATORY:

Fermilab



View all [University profiles](#)

Photo of the Day

New employees



New employees, including a group of TARGET program summer students, who began work on Monday, June 15. Bottom row from left: Luis Abrego, D'Angelo Cox, Tonisha Taylor, Elissia Franklin, Joshua Hall, Alejandro Fuentes, Sungwoo Youn, Kelly Swanson and Jessica Rippel. Second row from left: Keegan Freiburger, Andrew Cao, Piali Yang,

conclusions about the underlying physical processes. DZero scientists have done just that.

The scientists exploited the fact that ordinary quark and gluon scattering preferentially occurs at small angles compared to the beam. In contrast, for many exotic new physics ideas, the quarks scatter more uniformly. Thus the signature of new physical processes would be an excess of jets produced at angles near 90 degrees from the beam. By studying the jet angular distribution, physicists were able to set the strictest limits to date on the size of possible objects inside quarks and the size of extra-spatial dimensions beyond our familiar three. This measurement is pure gold.

It's not only for pirates that "X" marks the spot for treasure.

-- Don Lincoln



Nirmalya Parua
Indiana Univ.

Markus Wobisch
Louisiana Tech

Nirmalya Parua and Markus Wobisch were both instrumental in making this very precise measurement.



Back: Bill Frank, Peter Simon, Chuck McNeil, Rolanda Flores, Jim Fajans, Bob Kubinski, Mike Jarzynev
Front: Bob Berger, Russ Rucinski

The DZero mechanical crew makes many important contributions to the DZero experiment through operation and maintenance of the detector and building infrastructure. During this shutdown period, the mechanical crew members are especially busy reconfiguring the detector to facilitate the repairs and improvements scientists are currently making.

Announcements

[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](#)

Victoria Smith Ellison, Camilla Brewer, Tom Prosapio, Benedetto Di Ruzza and Branko Popovic. Third row from left: Fernando Olayo, Jeremy Williams, Adil Tobaa, Matt Bajzek, Alexey Naumov, Anatoli Malcarovich, Virginia Melanson and Genevieve DiMarco. Fourth row from left: Jeremy Johnson, Jerrold Mason, Evgeny Toropov, Alexander Vostrikov, Jo-Anne Butt, Kathryn Newton and Melissa Winchell. Top row from left: James Browne, Patrick Swanson, Chris Ozarka and Jeff Van Harlingen.

[In the News](#)

First information on FY2010 House DOE Appropriations bill

From *AIP FYI*, July 8, 2009

The House Appropriations Committee met at 7 p.m. last night to consider two FY 2010 funding bills, and did not complete its work until after midnight. The committee approved the Financial Services Bill, and, of more direct interest to the physics community, the closely-watched Energy and Water Development Appropriations Bill which funds the Department of Energy.

House appropriators released a four-page summary of the bill's provisions. The committee report, with detailed budget and policy recommendations, is now being printed and will be issued in the next few days.

Here is what is known about the bill approved early this morning:

The bill provides less money than requested by the Obama Administration: \$33.3 billion as compared to the requested \$34.4 billion.

Total spending would increase less than 1.0 percent over the current year.

The Administration requested an increase of \$184.1 million or 3.9 percent, from \$4,757.6 million to \$4,941.7 million, for the Office of Science. The House Appropriations Committee summary states that the bill provides an increase of \$171 million, which is an increase of 3.6 percent. The statement notes: "This funding, in addition to the \$4.8 billion appropriated in fiscal year 2008 and \$1.6 billion in the Recovery Act, exceeds the goals in the America COMPETES Act."

[Read more](#)

[Toastmaster Meetings scheduled - today & July 23](#)

[Change to Users' Office hours](#)

[Reminder: changes to FTL system](#)

[Time to complete accomplishment reports](#)

[Bristol Renaissance Faire discount tickets](#)

[On-site housing-fall 2009/spring 2010](#)

[Six Flags Great America discount tickets](#)

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

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

[Scrapbooking Open House - July 13](#)

[Adult Swim Lessons and Water Aerobics offered at Fermi Pool - July 13](#)

[MathWorks free seminar - July 15](#)

[English Country Dancing, July 19](#)

[Argentine Tango classes through July 22](#)

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

[Outlook 2007: New Features class Aug. 6](#)

[The University of Chicago Tuition Remission Program Aug. 17 deadline](#)

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

[Interaction Management and Performance Review courses scheduled for summer 2009](#)

[Fermilab Barnstormers](#)

[Additional Activities](#)

