

Calendar

[Have a safe day!](#)

Thursday, Jan. 7
THERE WILL BE NO
THEORETICAL PHYSICS
SEMINAR THIS WEEK
3:30 p.m.

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

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

West
Speaker: Dan Kaplan, Illinois
Institute of Technology
Title: Antiprotons at Fermilab:
New Directions in Hyperon,
Charm, and Antimatter Physics

Friday, Jan. 8
3:30 p.m.
DIRECTOR'S COFFEE
BREAK - 2nd Flr X-Over
4 p.m.

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

Speaker: Marat Gautaulin,
California Institute of
Technology
Title: First LHC Collisions with
CMS

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

[Upcoming conferences](#)

Campaigns

[Take Five](#)

[Tune IT Up](#)

H1N1 Flu

For information about H1N1,
visit Fermilab's flu information
[site](#).

Feature

LBNE elects spokespersons, gains momentum

Building a team of experts to create the world's most intense, long-distance neutrino beamline takes time, forward thinking and good leaders.

That is especially true when that beamline is aimed at a US-based particle detector more than 10 times the size of the largest LHC detector.



Bob Svoboda

With the election of its first spokespersons, the proposed Long Baseline Neutrino Experiment has cemented its bid to unlock the mysteries of the neutrinos that permeate the world around us.

Studying the light-mass neutrino could reveal an imprint of asymmetric behavior from a heavier cousin neutrino that scientists suspect existed at the time of the Big Bang and tipped the scales of the universe to allow baryonic matter to dominate antimatter.

Bob Svoboda from the University of California, Davis and Milind Diwan from Brookhaven National Laboratory were tapped three years ago by the National Science Foundation to put together an experimental team for the proposed LBNE. The collaboration elected them to continue working as closely as spokespersons on the experiment's research goals and infrastructure needs. The duo plan to work toward increased collaboration between Fermilab and Brookhaven laboratories.

Svoboda and Diwan bring a breadth of experience from working with neutrinos for about 25 years each. Svoboda serves as co-spokesperson on the Double Chooz experiment

in France. Diwan participates in the MINOS experiment at Fermilab and the Daya Bay experiment in China. These are crucial experiments that will set the stage for LBNE.

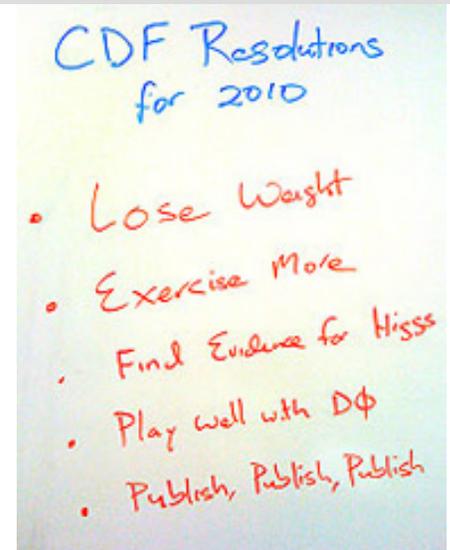
Diwan was one of the original proponents in



Milind Diwan

Fermilab Result of the Week

CDF lists resolutions for the new year



[CDF's resolutions for the new year.](#)

At the beginning of the new year, people all over the world establish personal resolutions as a way to improve over the previous year. The CDF experiment at Fermilab, a large international collaboration of individuals, is no different.

Year after year, and 25 years since the first proton-antiproton collisions were observed at the experiment, we keep striving for excellence. We have established a set of goals for 2010 that highlight our priorities for the coming year. We share them here with you so you can keep score as the year progresses. We would like to:

- Collect more than two inverse femtobarns of physics-quality data to tape. That would increase our total to date by 30 percent and bring us to eight inverse femtobarns of analyzable data.
- Update the CDF and CDF/DZero combined Higgs results with an additional two inverse femtobarns of data.
- Obtain more than 75 new results for the year, with at least 40 of those published by year's end.
- And of course, we as a collaboration plan to eat healthier, exercise regularly and lose 3,178 lbs. collectively.

For the Tevatron program, 2010 has always been described as an epic year; one that has been discussed illustriously in terms of the

WeatherSnow
16°/7°

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

Current Security Status[Secon Level 3](#)**Wilson Hall Cafe**

Thursday, Jan. 7

- Breakfast: Apple sticks
- Santa Fe black bean soup
- Steak tacos
- Chicken Wellington
- Chimichangas
- Baked ham & Swiss on a ciabatta roll
- Assorted sliced pizza
- Crispy fried chicken salad

[Wilson Hall Cafe Menu](#)**Chez Leon**

Thursday, Jan. 7

- Dinner
- Wild rice & mushroom soup
 - Mustard, sage & maple glazed pork roast
 - Garlic roasted potatoes
 - Sweet & sour red cabbage
 - Apple charlottes

Wednesday, Jan. 13

- Lunch
- Spicy black bean & sausage calzone
 - Confetti corn salad
 - Pineapple flan

[Chez Leon Menu](#)

Call x3524 to make your reservation.

Archives

2001 of building LBNE to take advantage of the recent discovery that neutrinos had mass. That discovery opened the door for neutrinos to become dark matter candidates and the lynch pin to the evolution of visible matter.

"Just that discovery is of tremendous importance in how we understand the workings of the world. This has multiple consequences for our understanding," Diwan says. "Detection of CP violation in neutrinos as well as unambiguous determination of the mass ordering of neutrinos needs a next-generation accelerator and detector facility; there is no question about that. The same detector could discover a lot of other physics: decay of a proton, for example."

[Read more](#)

-- Tona Kunz

Photo of the Day

Row one from left: Piali Yang, WDRS; and Krista Larson, CD. Row two from left: John Campbell, PPD; Dan Marks, TD; and Daniel Evbota, TD.

In the News**Dark matter 'beach ball' unveiled**

From **BBC News**, Jan. 6, 2010

The giant halo of dark matter that surrounds our galaxy is shaped like a flattened beach ball, researchers say.

It is the first definitive measure of the scope of the dark matter that makes up the majority of galaxies' masses.

The shape of this "dark matter halo" was inferred from the path of debris left behind as the Sagittarius dwarf galaxy slowly orbits the Milky Way.

A team of US astronomers announced the

accelerator performance and the program's physics achievements. Well, 2010 is finally here and it feels pretty good to still be going strong. In the immortal words of Mark Twain: "the reports of our death have been greatly exaggerated."

This coming year is shaping up to be very exciting. On behalf of the CDF collaboration, we wish you all an excellent 2010!

-- edited by Craig Group

Accelerator Update

Jan. 4-6

- Five stores provided ~32 hours of luminosity
- Pbar cooling problem fixed
- TeV quench during shot setup due to front end

[Read the Current Accelerator Update](#)[Read the Early Bird Report](#)[View the Tevatron Luminosity Charts](#)**Announcements****Latest Announcements**[Barn Dance Jan. 10](#)[Fermilab Family Open House Feb. 21](#)[2010 standard mileage reimbursement rate](#)[FRA scholarship 2010](#)[Overcome your fear of public speaking - today](#)[Fermilab Natural Areas newsletter](#)[Yoga classes begins Jan. 12](#)[Atrium events - book through Office of Communication](#)[International folk dancing meets today](#)[East gate closed 1-5 a.m.](#)[Fermilab Management Practices seminar beginning Feb. 11](#)[Python Programming class offered Feb. 24-16](#)[Additional Activities](#)

[Fermilab Today](#)

findings at the American Astronomical Society meeting in Washington.

[Result of the Week](#)

Dark matter is a mysterious kind of matter that makes up nearly a quarter of the mass in the universe, but does not interact with light and so has until now remained invisible to scientists.

[Safety Tip of the Week](#)

[Read more](#)

[CMS Result of the Month](#)

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