

Calendar

[Have a safe day!](#)

Wednesday, Oct. 20
3:30 p.m.

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

[Fermilab Colloquium](#) - One
West

Speaker: Giacomo Mauro
D'Ariano, University of Pavia
Title: Physics as Information
Theory

Thursday, Oct. 21
2:30 p.m.

[Theoretical Physics Seminar](#) -
Curia II

Speaker: Antonio Delgado,
University of Notre Dame
Title: The S-MSSM: The
Singlet Saves the Day

3:30 p.m.
DIRECTOR'S COFFEE
BREAK 2nd Flr X-Over
THERE WILL BE NO
ACCELERATOR PHYSICS
AND TECHNOLOGY
SEMINAR TODAY

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

[Upcoming conferences](#)

Campaigns

Take Five

Tune IT Up

Weather

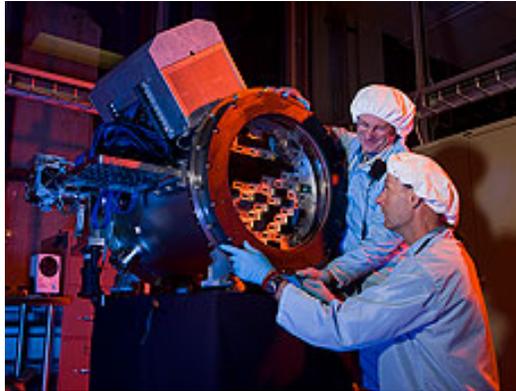


Breezy
68°/37°

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

Experiment Profile

Dark Energy Camera



Dark Energy Survey scientists work on a prototype
of the Dark Energy Camera

Editor's note: This is the first in an ongoing
series of Experiment Profiles. Each profile will
give an overview of an experiment at Fermilab
or that Fermilab is involved in. These profiles
will explain what scientists hope to learn, why
the experiment is needed, what makes it
unique and more. Please watch Fermilab
Today for more experiment profiles.

NAME: The Dark Energy Survey, or DES,
which uses the Dark Energy Camera, called
DECam

WHAT WILL THIS TELL US? Because
gravity causes mass to attract other mass,
over time, this gravitational pull should slow
the universe's expansion. Instead, the
universe is accelerating: Galaxies are
speeding away from each other faster and
faster. DES aims to help pin down the cause
of this acceleration. Theorists offer two
possibilities: Either three-quarters of the
universe is dark energy, which causes a type
of anti-gravity, or gravity itself behaves
differently on cosmic scales than Einstein
thought it did. The answer will determine the
fate of the universe. If Einstein was correct,
the expansion of the universe will continue to
speed up, and in 100 billion years the
observable universe will be almost empty of
galaxies or will have ripped apart.

To find clues to the characteristics of dark
energy, DES also will trace the history of the
expanding universe roughly three-quarters of
the way back to the time of the Big Bang. It
will do this by measuring the distribution of
galaxies throughout space, how the gravity of

From the ES&H Section

Communication is key: new ES&H web pages

Nancy Grossman, head of the ES&H section,
wrote this week's column.

I am impatient with web
pages. Maybe it was the
one-click rule from all of
those Director's Reviews,
when we strived to have
single-click links to all our
documents. It was hard.

Today we are launching a
new ES&H website. The
old one was state of the
art when it was developed
more than 10 years ago.

Its pages contained an amazing amount of
information, but they were difficult to navigate
and certainly didn't follow the one click rule.

Nearly a year ago we embarked on a plan to
revamp our web pages, with a focus on our
various stakeholders and audiences. We
formed small groups to identify the appropriate
information on pages intended for specific
audiences; for example, we asked engineers
and technicians to identify the content and
navigation for a dedicated engineer/ technician
page. We received a lot of suggestions and
recommendations for our new web pages from
these groups, and I want to thank all
participants for their time and efforts.

Our new website has audience-specific pages
for 12 categories such as task managers/
construction coordinators, building managers,
scientists/users, laboratory managers, project
managers/spokespeople, engineers/
technicians and all the different types of ES&H
officers. For example, we have a new page for
scientists and users where they can easily get
to information on training requirements, TLD
badges, documents about safety at CERN,
safety footwear request forms and emergency
information. The new ES&H website also has
a resources page where you can find
information on Fermilab ES&H committees,
NEPA, green house gases and more. And we
have a single page dedicated to training,
consolidating the scattered information on
ITNAs, training programs and more.



Nancy Grossman

Current Security Status

dark matter distorts their shapes, how galaxies cluster and the brightness of exploding stars called supernovae.

[Second Level 3](#)

Wilson Hall Cafe

Wednesday, Oct. 20
 - Breakfast: English muffin sandwich
 - Cheese soup
 - Gyros
 - Goulash
 - Bratwurst
 - Beef and cheddar panini
 - Assorted sliced pizza
 - Sauerbraten with potato pancake

[Wilson Hall Cafe Menu](#)

Chez Leon

Wednesday, Oct. 20
 Lunch
 - Rouladen
 - Spaetzel
 - Dilled baby carrots
 - Apple walnut cake

Thursday, Oct. 21
 Dinner
 - Crab cakes w/ red pepper mayonnaise
 - Medallions of beef
 - Potato cups
 - Sauteed zucchini
 - Grand Marnier souffle

[Chez Leon Menu](#)

Call x3524 to make your reservation.

Archives

[Fermilab Today](#)

[Director's Corner](#)

[Result of the Week](#)

[Safety Tip of the Week](#)

[CMS Result of the Month](#)

[User University Profiles](#)

WHY IS THIS EXPERIMENT NEEDED NOW? Research during the last decade using different methods has confirmed that the expansion rate of the universe is speeding up. The next step is to understand why the expansion rate of the universe is accelerating---its physical cause. The answer is likely to change our understanding of the behavior of the natural forces, such as gravity, that cause everything in the world to interact.

WHAT IS DES LOOKING FOR? DES will survey about one-tenth of the sky, or 5,000 square degrees, to measure 300 million galaxies and carry out repeat surveys over a smaller portion of the sky to discover thousands of supernovae.

FUNDED BY: DOE, NSF, non-U.S. funding agencies and participating institutions

NUMBER OF COLLABORATORS: More than 120 scientists, plus students and postdocs

U.S. COLLABORATING INSTITUTIONS: Four national labs, eight universities, one national observatory

NON-US COLLABORATING INSTITUTIONS: 13 universities and research centers (Germany, Brazil, UK, Spain)

STATUS: Final construction and testing of DECam is underway; part shipments to Chile set for September 2010 through June 2011.

LIFESPAN OF EXPERIMENT: Starting in 2012 and continuing for five years.

[Read more](#)

In the News

Super-cool show for kids

From **Gary Post-Tribune**, Oct. 19, 2010

Explosions were the order of the day when "Mr. Freeze" presented a cryogenics demonstration recently to a gym full of home-schooled students at South Lake Church of the Nazarene, on U.S. 30 between Indiana 51 and Randolph Street

Cryogenics, according to Mr. Freeze, is the science of making things really cold and what happens when you do.

We are looking forward to receiving your feedback and suggestions for improvements. Ultimately, the new website will make everyone's life easier, even if it might take previous users a few moments to get used to the new navigation of our new [website](#).

In Brief

Dealing with difficult people: administrative event - Oct. 21

Dealing with Difficult People

By Laura Lewis-Barr, Head Consulting
 Thursday, October 21, 2010
 Class # 10-113044
 © Fermilab

A 90 minute presentation for any and all administrative employees. Attendees will learn skills that will help them work more effectively and efficiently with difficult people.

The workshop will explore:

- Meeting both the service and psychological needs of our customers
- Recognizing emotional messages in others and ourselves
- Using verbal listening and the DISC strategy to defuse conflict situations and convert angry customers into happy ones.



An event to help administrative employees learn skills to best deal with difficult people will take place at 10 a.m. on Thursday, Oct. 21, in Curia II.

During her 90-minute workshop, speaker Laura Lewis-Barr will teach strategies and skills to work more effectively and

efficiently with difficult people. The workshop will cover meeting the service and psychological needs of customers, recognizing emotional messages in others and ourselves and using strategies and techniques to defuse conflict situations and convert angry customers into happy ones.

All administrative professionals are welcome.

Safety Update

ES&H weekly report, Oct. 20

This week's safety report, compiled by the Fermilab ES&H section, includes one recordable incident. Find the full report [here](#).

[Safety report archive](#)

Announcements

[ILC NewsLine](#)

Info

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www.fnal.gov/today/

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today@fnal.gov

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Jerry Zimmerman of Aurora, Ill., has presented the popular liquid nitrogen demonstrations for 13 years through his employer, Fermilab, of Batavia, Ill., about 45 miles west of Chicago.

During the presentation, he heated a gallon-size plastic bag filled with nitrogen, which exploded; a small garbage bag with liquid nitrogen, which exploded; a plastic ball frozen in liquid nitrogen, which exploded; and a pop bottle filled with soapy water and nitrogen, which exploded, this time covering himself and the floor with soap suds.

He also demonstrated how to cryogenically freeze flowers for use in perfume, how to freeze a banana so solid it can be used as a hammer, and how the O-ring that led to NASA's Challenger disaster in January 1986 became so brittle.

Commissioned in 1967 by the U.S. Atomic Energy Commission, Fermilab has built a state-of-the-art facility on 6,800 acres of land where physicists study particle physics. Originally named the National Accelerator Laboratory, it was renamed in 1974 in honor of Nobel Prize winner Enrico Fermi, one of the leading physicists of the atomic age.

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