

Calendar

[Have a safe day!](#)

Wednesday, May 12

3:30 p.m.

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

[Fermilab Colloquium](#) - One West

Speaker: Joel Norris,
Scripps Institution of
Oceanography
Title: Cloud Feedbacks on
Climate: A Challenging
Scientific Problem

Thursday, May 13

1:30 p.m.

[Particle Astrophysics](#)

[Seminar](#) - Comitium (NOTE
DATE, TIME, LOCATION)

Speaker: Takada Masahiro,
IPMU, Japan

Title: Subaru Weak Lensing
Study of X-Ray Luminous
Clusters

2:30 p.m.

[Theoretical Physics](#)

[Seminar](#) - Curia II

Speaker: George Fleming,
Yale University

Title: Three Years of Lattice
Strong Dynamics: Have We
Learned Anything Yet?

3:30 p.m.

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

4 p.m.

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

Speaker: Juergen Dietrich,
Research Center Juelich –
Nuclear Physics Institute
Title: Status of the 2 MeV
Electron Cooler for COSY
Juelich

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

[Upcoming conferences](#)

Feature

National Lab Day brings Fermilab physics to students



Fermilab scientist Al Sondgeroth demonstrates force and motion to students from Annunciation BVM School in Aurora.

“I want to try, too!” This was the chorus that rang out across Jennifer Wardynski’s sixth grade class last Tuesday, when Fermilab’s Al Sondgeroth got students involved in a demonstration of angular momentum at Annunciation BVM elementary school in Aurora.

Sondgeroth was one of 20 Fermilab volunteers who gave hands-on presentations in area elementary and high schools last week to celebrate National Lab Day. His presentation gave students an opportunity to experience Issac Newton’s laws in action.

“It helped bridge the gap between the abstract concepts of physics and real-world applications that are all around us,” Wardynski said.

In addition to Sondgeroth’s presentation on force and motion, volunteers talked about topics such as electricity and magnetism, light and color and the physics of sports.

On Thursday, Fermilab Deputy Director Young-Kee Kim spoke to the young women in teacher Falguni Soni’s chemistry

From the Technical Division

IB1 Test Facility prepares for things to come

Ruben Carcagno, head of the Test and Instrumentation Department in the Technical Division, wrote this week’s column.

Magnets and radio-frequency cavities are at the heart of particle accelerators, generating the magnetic and electric fields that bend, shape and accelerate a beam of particles. The cost and scientific potential of particle accelerators, such as the proposed Project X, strongly depends on the performance of these critical components.



Ruben Carcagno

Superconductivity now is the key technology to produce the best magnets and RF cavities. Advancing this technology requires adequate facilities with the infrastructure to test superconducting magnets and RF cavities under standard and extreme operating conditions. Those facilities also provide the testing that is necessary to ensure the quality of magnets and RF cavities before they are installed in an accelerator.

At Fermilab, the Industrial Building 1 Test Facility provides this infrastructure. The IB1 Test Facility, which is part of the Technical Division complex’s industrial buildings, has a very successful history. For more than 30 years, it supported conventional and superconducting magnet testing for projects such as the Main Ring accelerator, Tevatron, Superconducting Super Collider dipoles, Recycler and LHC interaction region quadrupoles. In the last few years, we have used the facility to test magnets for the [LHC Accelerator Research Program](#) and Fermilab’s [High-Field Magnet Program](#) as well as corrector magnets for the Booster accelerator and solenoids for a [High-Intensity Neutrino Source](#).

In July 2007, we expanded the scope of

Campaigns

[Take Five](#)

[Tune IT Up](#)

H1N1 Flu

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

Weather



**Chance of
thunderstorms**
56°/53°

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

Current Security Status

[Secou Level 3](#)

Wilson Hall Cafe

Wednesday, May 12

- Breakfast: English muffin sandwich
- Chicken noodle soup
- Steak sandwich
- Maple Dijon salmon
- Mongolian beef
- California club
- Assorted sliced pizza
- Chicken pesto pasta

[Wilson Hall Cafe Menu](#)

Chez Leon

Wednesday, May 12

Lunch

- Grilled tuna nicoise salad
- Blueberry yogurt sundaes

Thursday, May 13

Dinner

- Closed

[Chez Leon Menu](#)

Call x3524 to make your reservation.

Archives

[Fermilab Today](#)

classes at Rosary High School. Her visit to Rosary was prompted in part by the interest of sophomore Emily Launer, who wrote a prize-winning [research piece](#) on the history of Fermilab.

Kim discussed the field of particle physics and some of the scientific mysteries that Fermilab pursues. She also encouraged the girls who have an interest in science and advised them not to be daunted by a field historically dominated by men.

Many of the students said the presentation helped them relate the science that they are learning about in the classroom to the physics at Fermilab.

"It was all really interesting," said junior Mary LeDoux. "I had heard some of the information about science done at Fermilab before but it really helps to hear it all again because these are very deep concepts."

National Lab Day is a response to President Obama's call to encourage students across the country to learn about math, science, technology and engineering. Over the course of the week, Fermilab presentations reached about 2,500 elementary and high school students.

-- Daisy Yuhas



Fermilab Deputy Director Young-Kee Kim speaks to students at Rosary High School in Aurora.

Letter from Hawaii

Thank you for Pier Oddone's National Lab Day visit

***Editor's note:** Last week, Fermilab Director Pier Oddone devoted a day of his Hawaiian vacation to a celebration of National Lab Day. Oddone visited Punahou School in Honolulu to share with students the adventure of a life in science. Punahou School, a member of the Quark Net program, is President Obama's alma mater. Following the visit, Punahou School Science Teacher Johannes Adams sent this letter of appreciation.*

the IB1 Test Facility by starting up its first SRF cavity vertical test stand. To date we have conducted approximately 90 SRF cavity tests. With funding from the American Recovery and Reinvestment Act, we are adding two more test stands to this Vertical Cavity Test Facility as we anticipate that in the future we'll need to test up to 250 cavities per year. We developed the design for these new test-stand cryostats together with our collaborators at institutions in India. Using ARRA funding, we also are upgrading the IB1 cryogenic system to match the increased cooling and reliability demands of our magnet and cavity test areas.

This is a very busy and exciting time for the IB1 Test Facility as we prepare its infrastructure to once again meet the challenge of providing support for the testing of critical components for a proposed accelerator on the Fermilab site.



IB1 Test Facility

In the News

Search for dark matter still empty-handed, scientists say

From *Space.com*, May 10, 2010

The search for elusive dark matter is still drawing a blank, according to new results from one of the most powerful experiments currently hunting for the invisible stuff.

The XENON100 experiment buried deep underground in Italy is one of a handful of efforts to directly detect dark matter, a substance thought to be plentiful in the universe, despite the fact that our telescopes can't see it. Astronomers can detect dark matter's gravitational effects on normal matter, but have not yet confirmed a direct measurement of the sought-after substance.

While a few teams have reported potential sightings of the strange stuff, the new results from XENON100 — which its scientists say is the most sensitive search to date — suggests those possible signals were not dark matter. If they were,

[Result of the Week](#)

[Safety Tip of the Week](#)

[CMS Result of the Month](#)

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Fermilab Director Pier Oddone with students at Punahou School in Hawaii for National Lab Day.

Dear Fermilab community,

The Punahou community is very thankful to Pier and Barbara Oddone for talking to students and faculty from Punahou School, Sacred Hearts School, Roosevelt High School and Kahuku High School.

The kids were fascinated by Mr. Oddone's accounts of his life journey, mystified by the mysteries of the universe and had their curiosities piqued by all of the "unanswered" questions in particle physics.

During his visit, Mr. Oddone held an informal talk, gave a lecture, held question and answer sessions, signed autographs and took pictures.

En route to his next destination, Mr. Oddone navigated through gawkers, hangers-on and particle physics fans. The Punahou campus continued to remain abuzz about how nice, genuine, and down-to-earth both Mr. and Mrs. Oddone were.

We are grateful to Carlyn Tani for taking photos during the event, and thankful to the student from ITV who recorded the events.

I would also like to express thanks to Darcy Iams, the physical plant, and security at Punahou for making the visit possible and to Marge Bardeen, Michelle Gleason and Bob Peterson at Fermilab for having the vision, energy and enthusiasm to share their passion for physics.

Aloha,
Johannes Adams

XENON100 should have detected dozens of events unless the properties of dark matter are very different than expected.

[Read more](#)

Safety Update

ES&H weekly report, May 11

This week's safety report, compiled by the Fermilab ES&H section, includes no work-related injuries. Fermilab filed a report with Department of Energy regarding last week's incident in Wilson Hall. Find the full report [here](#).

[Safety report archive](#)

Announcements

[Artist Reception - 5-7 p.m. on May 14](#)

[43rd Fermilab Users' Meeting June 2 - 3, registration now open](#)

[Argentine Tango Wednesdays through May 26](#)

[NALWO Children's Playgroup International Party - May 14](#)

[English country dancing - May 16](#)

[Pool memberships available now](#)

[NALWO Spring Tea - May 20](#)

[Sand Volleyball Tuesdays begin May 25](#)

[43rd Fermilab Users' Meeting June 2-3, register now](#)

[SciTech summer camps start June 14](#)

[Employee discount at Batavia Rosati's](#)

[Fermilab Arts Series presents Corky Siegel and Chamber Blues - June 26](#)

[ANSYS Mechanical Application classes offered in May](#)

[Additional activities](#)

[Submit an announcement](#)



Fermilab Director Pier Oddone poses with students in Punhau School in Hawaii.