

Calendar

[Have a safe day!](#)

Friday, Aug. 13

1 p.m.

[Particle Astrophysics Seminar](#)

- One West (NOTE DATE and TIME) Speaker: Pat McCarthy, Giant Magellan Telescope Observatory/Carnegie Observatories

Title: Status of the Giant Magellan Telescope Project
2:30 p.m.

[Particle Astrophysics Seminar](#)

- One West

(NOTE DATE and TIME) Speaker: Christopher Savage, Stockholm University

Title: XENON10/100 Dark Matter Constraints: Examining the Leff Dependence
3:30 p.m.

DIRECTOR'S COFFEE

BREAK - 2nd Flr X-Over

4 p.m.

[Joint Experimental-Theoretical Physics Seminar](#)

- One West
Speakers: Amol Upadhye, University of Chicago and Jason Steffen, Fermilab
Title: Results of the GammeV-CHASE Probe for Chameleon Dark Energy

Saturday, Aug. 14

8 p.m.

[Fermilab Arts Series](#)

Auditorium

Singer and songwriter: [Claudia Schmidt](#)

Tickets: \$14/\$7

Monday, Aug. 16

THERE WILL BE NO PARTICLE ASTROPHYSICS SEMINAR THIS WEEK

3:30 p.m.

DIRECTOR'S COFFEE

BREAK - 2nd Flr X-Over

4 p.m.

All Experimenters' Meeting - Curia II

Feature

Fermilab hosts hadron physics school Aug. 16-27



The fifth annual Hadron Collider Physics Summer School will take place at Fermilab Aug. 16-27.

For the next two weeks, Fermilab's conference rooms and cafeteria are going to get a little crowded.

Beginning Monday, Aug. 16, more than 150 advanced theoretical and experimental Ph.D. students and first or second year postdocs in particle physics will gather at Fermilab for the fifth annual [Hadron Collider Physics Summer School](#). Students attending the school, which runs from Monday through Friday, Aug. 27, will learn about practical theoretical and experimental high-energy physics.

"The school gives students a foundation that they don't necessarily get from the coursework at their university," said school co-chair Andreas Kronfeld. "The students attending will learn things imperative to their professional development."

The organized set of lectures is roughly divided between experimental and theoretical topics. Although the curriculum resembles that from previous years, this year's curriculum boasts some added features. Students arriving on Monday, Aug. 16, have the option of spending the day learning how to do Monte Carlo simulations, which scientists use to aid the interpretation of their results.

In addition to the Monte Carlo workshop, Kronfeld and co-chair Doug Glenzinski have also added lectures about non-hadron collider topics. Students will hear lectures about neutrino oscillations, dark matter searches and

CMS Result of the Month

CMS's debut



The biannual ICHEP conference was held in Paris this year. This conference is often considered the most important large conference in the particle physics community.

Many cultures have a coming-of-age ceremony. It could be *débutante ball* in France, a *cotillion* in the southeast US, a *bar mitzvah* in New York City or a *quinceañera* in Mexico. In these ceremonies (and the following parties) a young man or woman is announced to the community as having come of age and is ready to join adult life.

Particle physics experiments don't have such a ceremony, but there is something equivalent. When the experiment has collected enough data and has developed adequate analysis tools, scientists can present their findings at an important conference. In doing so, they will concede that they have arrived. There is no more important conference in the particle physics than the International Conference on High Energy Physics. CMS physicists at ICHEP shared their results and generated the kind of buzz one sees when an entirely new facility begins operation.

During the last week of July, slightly more than 1,000 physicists converged on Paris to hear 600 presentations, ranging from talks to poster presentations. Of those, about 30 of them described CMS results.

Special Topics: Vacuum rf Studies in the MuCool Test Area (MTA); First Operation of the COUPP 60kg Chamber Underground

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

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[Weather](#)



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

[Current Security Status](#)

[Secon Level 3](#)

[Wilson Hall Cafe](#)

- Friday, Aug. 13
- Breakfast: Chorizo burrito
 - New England clam chowder
 - Carolina cheeseburger
 - Tuna casserole
 - Dijon meatballs over noodles
 - Bistro chicken & provolone panini
 - Assorted sliced pizza
 - *Carved top round of beef

*Carb restricted alternative

[Wilson Hall Cafe Menu](#)

[Chez Leon](#)

the connection between astrophysics and high energy physics.

"We added these lectures so that we could offer the students a more well-rounded view," Glenzinski said. "These are important areas where the laboratory and other high-energy physics institutions will be focusing their efforts."

Students will be bussed onto the site, so the school should not affect parking. Lectures will adjourn at noon most days for lunch, so the cafeteria will be more crowded at that time than normal. Students will eat lunch at 12:30 p. m. on Friday and Saturday, Aug. 20 and 21.

All school lectures will be available via streaming video.

Two colloquia on Wednesdays Aug. 18 and 25, and a Joint Experimental Theoretical Physics seminar on Aug. 20 are associated with the school. These seminars are open to the public. Anil Kakodkar from the Department of Atomic Energy in India will give the Joint Experimental Theoretical Physics seminar on Friday, Aug. 20.

-- Rhianna Wisniewski

Special Announcement

Air quality action day

The Environmental Protection Agency has issued an air quality action day for the Chicagoland area. Today's conditions are unhealthy for sensitive groups. Active children and adults, and people with lung disease, such as asthma, should reduce prolonged or heavy exertion outdoors. Please postpone to the extent possible those activities that degrade the air quality, such as mowing, structural painting and deferrable auto/truck usage. Avoid vehicle idling and refueling.

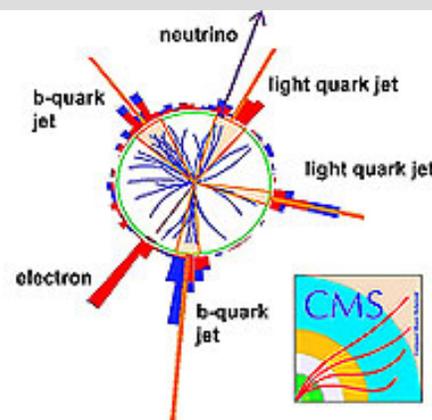
[Learn more](#)

Photo of the Day

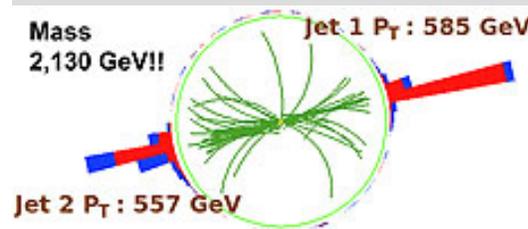
Since the acceleration of the first beam at the end of March of this year, CMS collaborators have worked non-stop preparing for ICHEP. The effort was quite evident. While the first analyses showcased old friends first discovered half a century ago, the increasing luminosity has allowed physicists to study more exotic topics. CMS physicists have [observed](#) W & Z bosons (first discovered at CERN in 1985). The heavier charm and bottom quarks have also shown their faces, boding well for future searches for new phenomena. Even the top quark, previously only observed at the Fermilab Tevatron, is starting to poke its head above the noise.

Any of these results are real triumphs for the physicists who built and operate the equipment, as well as those who extracted the measurement from the raw data. But, my personal favorite is the observation of something impossible before the LHC -- a collision in which more than 2 TeV of mass was produced. This kind of collision is impossible anywhere else in the world and gives a glimpse of the future. We live in exciting times.

- Don Lincoln



This event may record the decay products of two top quarks. Events like these show that the CMS research program is beginning to live up to early expectations. As the luminosity grows, the LHC accelerator will become a top quark factory, producing prodigious numbers of this heaviest of known quarks.



Wednesday, Aug. 18

Lunch

- Chicken, rice & tropical fruit salad
- Herbed green beans
- Cream puff w/ ice cream & caramel sauce

Thursday, Aug. 19

Dinner

- Garden salad
- Grilled swordfish
- Lemongrass rice
- Steamed green beans
- Lemon napoleon

[Chez Leon Menu](#)

Call x3524 to make your reservation.

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Today

Spotlight on summer interns



Individuals interning at Fermilab this summer gathered for a group photo. This summer's interns come from all over the U.S. and from around the world. Some of the countries represented in the photo include: Scotland, Nepal, Singapore, China, Mexico, Italy and Russia, all of which have formal programs; and South America, Poland and India, which have informal programs.

[Special Announcement](#)

Win a free lunch for two: take Chez Leon's survey

Chez Leon, Fermilab's on-site gourmet restaurant, would like to hear from you, even if you've never eaten at the restaurant. Please complete the [online Chez Leon survey](#) to provide valuable feedback, including meal selections, days, times and other options. The names of those who take the survey will be entered into a drawing for a complimentary lunch for two.

[In the News](#)

Death of the Big Bang, or the problem of time's beginning

From **13.7 Cosmos and Culture**, an **NPR** blog, Aug. 11, 2010

The Big Bang is all but dead and we do not yet know what will replace it.

There are those who will tell you that Cosmology — the study of the Universe entire — has become an exact science. They will tell you that this grand and all embracing field has, in the last 50 years, moved from the realms of philosophical speculation into the purest domains of science via exacting confrontations between theoretical models and high-resolution data. You should know that they are right.

For the first time in the long march of human thinking we are now, finally, able to construct a detailed and verifiable account of cosmic

This particular collision produced 2.130 TeV of mass, higher than the total energy of the Tevatron (1.96 TeV) and more massive than anything recorded before.

[Announcements](#)

[Wilson Hall west side road closed through Monday](#)

[Fermilab Singers concert Friday, Aug. 13 at noon](#)

[English country dancing this Sunday, Aug. 15](#)

[Grounding and Shielding of Electronic Systems course - Aug. 13](#)

[Singer and songwriter Claudia Schmidt performs in Fermilab Arts Series - Aug. 14](#)

[Argentine Tango, Wednesdays, through Aug. 25](#)

[Bristol Renaissance Faire discount](#)

[Aug. 20 deadline for The University of Chicago Tuition Remission program](#)

[Applications for URA Visiting Scholars Awards due Aug. 20](#)

[Regal Movie Theater discount tickets available](#)

[What's New with NI and the latest version of LabVIEW \(NI Week highlights\)? - Aug. 19](#)

[Gizmo Guys - Fermilab Arts Series - Sept. 25](#)

[NIM and Physics Reports now completely online at Fermilab](#)

[Lunch & Learn about the power of preventative health care - Aug. 18](#)

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Classifieds

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