

## Calendar

### [Have a safe day!](#)

**Friday, Oct. 8**

**3:30 p.m.**  
 DIRECTOR'S COFFEE  
 BREAK - 2nd Flr X-Over  
**4 p.m.**

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

Speaker: Craig Aalseth, Pacific  
 Northwest National Laboratory  
 Title: Radiation Detection R&D:  
 Two High Purity Ge Array  
 Examples

**Saturday, Oct. 9**

**8 p.m.**  
[Fermilab Arts Series](#) - Ramsey

Auditorium  
 Performer: [Suzanne Vega](#)  
 Tickets: \$29 for adults/\$15 for  
 18 and under

**Monday, Oct. 11**

**2:30 p.m.**  
[Particle Astrophysics Seminar](#)

- One West  
 Speaker: Gray Rybka,  
 University of Washington  
 Title: Low Energy Particle  
 Physics with Microwaves

**3:30 p.m.**  
 DIRECTOR'S COFFEE  
 BREAK - 2nd Flr X-Over

**4 p.m.**  
 All Experimenters' Meeting -  
 Curia II  
 Special Topic: New Booster  
 Multi-Pole Correctors  
 Commissioning

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

[Upcoming conferences](#)

[Campaigns](#)

## Feature

### Nominations now accepted for director's volunteer award



Suzanne Weber accepted the Director's Award from Fermilab Director Pier Oddone in 2009. Weber received the annual award for her 20 years of work with the Saturday Morning Physics program.

Each year, about 200 employees, users and contractors go above and beyond their everyday duties to further outreach and education at the laboratory.

These volunteers are role models and mentors for teachers and students, answer tough questions about Fermilab and its science, maintain Lederman Science Center exhibits, visit area classrooms and more.

Once a year at a reception, the laboratory recognizes the efforts of an especially dedicated volunteer. Please let the Education Office know when you're impressed by a colleague's contribution.

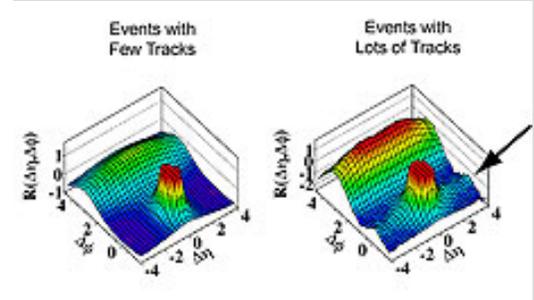
[Nominate](#) a Fermilab staff member, user or contractor candidate for the director's volunteer award. The Education Office will take nominations until Oct. 22. This year's reception will take place on Nov. 2.

[Learn more](#)

**Special ES&H Tip -- Fire Safety**

## CMS Result of the Month

### Huh, that's funny...



By measuring and plotting the angles between two tracks ( $\Delta\phi$  and  $\Delta\eta$  are angles), CMS has observed a ridge in events with many tracks that we do not see in events with fewer tracks. This feature could be the first hint of something unexpected. (Figure adapted from [here](#).)

Imagine an ice cube suspended above a lit candle. The heat will cause the ice to melt. Recent reports have indicated that CMS might have accomplished a similar thing in the microscopic realm by melting protons in their collisions.

But the operative words are might have. CMS scientists have not made this claim. Indeed, all CMS scientists have claimed is that we observed an unexpected phenomenon that we cannot explain. The connection to melting protons comes from a similar phenomenon observed at Brookhaven National Laboratory, where scientists melted gold atoms in collisions at the RHIC accelerator.

So what is it that CMS has [observed](#)? We looked at events containing more than 110 reconstructed charged particles. We found that if we know the trajectory of a particle in that event, then we know where we are likely to find other particles, just as a fisherman knows the place he catches one fish is a good place to cast his line for others. In contrast, in collisions in which many fewer particles are created, we don't see the same thing. It seems that the number of particles created is related to whether this unexpected phenomenon has "turned on" or not. But we don't understand why. This doesn't mean that we have no ideas, but rather we have not yet drawn a firm conclusion.

A little mystery is unsurprising. After all, CMS and its sister experiments are studying at the

[Take Five](#)

[Tune IT Up](#)

**Weather**

 **Sunny**  
80°/53°

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

**Current Security Status**

[Secou Level 3](#)

**Wilson Hall Cafe**

**Friday, Oct. 8**

- 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**

**Wednesday, Oct. 13**

**Lunch**

- Hot & sour coconut soup
- Wasabi salmon sandwich
- Cucumber salad
- Gingered pear crisp

**Thursday, Oct. 14**

**Dinner**

- Closed

[Chez Leon Menu](#)

Call x3524 to make your reservation.

**Archives**

# Fire Prevention Week: Only you can prevent house fires



This week is National Fire Prevention Week -- a good time to review how to keep yourself and your family safe.

President Woodrow Wilson issued the first National Fire Prevention Proclamation in 1920 to remind people that being "fire safe" is everyone's responsibility. Fire Prevention Week commemorates the Chicago Fire of 1871, which claimed 250 lives and destroyed more than 17,400 structures. While the Chicago Fire is better known, that same week, the Peshtigo Fire in Wisconsin killed 1,152 people and scorched more than 1.2 million acres of land. Both of these historic events changed the way that our nation viewed fire safety and emphasized that fire protection was every citizen's job. So in honor of National Fire Prevention Week, the Fermilab Fire Department reminds you that small efforts on your part can have a large effect.

Follow these tips to stay safe:

- Have at least one operating smoke detector on each floor of the home. Check them monthly.
- Conduct home fire drills; practice the "stop, drop and roll" technique.
- Don't leave candles unattended.
- Keep children away from matches and lighters.
- When cooking, make sure that handles face inward from the stove edge to prevent accidental spills.
- Teach children how and when to dial 911.
- Minimize extension cord use; don't overload outlets; and install ground-fault circuit interrupter outlets where possible.

Take time this week to think about fire safety. With a few simple steps, we can all make a difference.

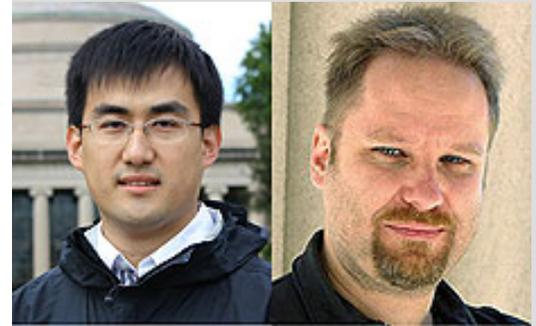
--Fermilab Fire Department Lt. John Babinec

**Feature**

very frontier of knowledge. It is entirely expected that we will see things we can't explain. This is a very good sign and, we hope it is the harbinger of a deluge of new and unexpected things.

Over the upcoming weeks and months, we hope to see many papers published that offer explanations for what we have observed and predictions for new and confirming measurements. We will also make new measurements, hoping to reach a deeper understanding. What we know is this is a sign of an interesting and vibrant research program. Remember that the phrase that indicates the beginning of scientific discovery is not "Eureka!," but rather "Huh, that's funny..."

- Don Lincoln



Wei Li

Gunther Roland

[These MIT physicists performed this analysis in consultation with many of their colleagues.](#)



Mauro Dinardo  
U. Colorado

Bill Gabeta  
Vanderbilt University

Ben Kreis  
Cornell University



Petra Merkel  
Purdue University

Joshua Thompson  
Cornell University

[The CMS silicon pixel detector makes it possible to form the tracks used in this analysis. These physicists are a small fraction of those who have been instrumental in making the pixel detector work.](#)

**Announcements**

[Fermilab Today](#)

[Result of the Week](#)

[Safety Tip of the Week](#)

[CMS Result of the Month](#)

[User University Profiles](#)

[ILC NewsLine](#)

## Info

[Fermilab Today](#)

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## Suzanne Vega to perform at Fermilab Saturday



Singer and songwriter Suzanne Vega will perform at Fermilab on Saturday.

Described by critics as one of the most brilliant songwriters of her generation, Suzanne Vega emerged as a leading figure of the folk-music revival of the early 1980s. Playing acoustic guitar, she writes and sings her own contemporary folk or neo-folk songs.

At 8 p.m. on Saturday, Oct. 9, she will perform songs from her decades-long career at the Fermilab Auditorium. Since the release of her self-titled, critically acclaimed 1985 debut album, Vega has performed sold-out concerts in many of the world's best-known halls. Her neo-folk style has ushered in a new female, acoustic, folk-pop singer-songwriter movement that includes the likes of Tracy Chapman, Shawn Colvin and Indigo Girls.

Initially rejected by major record labels, Vega was elevated to star standing in 1987 when her album "Solitude Standing" went platinum. Its most famous song, "Tom's Diner," hit No. 5 in the charts.

Vega has performed and recorded numerous movie soundtracks and contributed to diverse compilation projects and tributes.

Her songs focus on city life, ordinary people and real world topics, and her lyrics invite multiple interpretations. As fascinating as the New Yorkers who have inspired her, Vega is full of surprises and stories about the everyday revelations, the grabbed-on-the-run wisdom and the strange, random, miraculous stuff that make up her career – or maybe just another life in the big city.

Tickets for Vega's performance are \$29 (\$15 for ages 18 and under).

-- Sara Reardon

## Latest Announcements

[SLF3 - end of support - Oct. 10](#)

[Card Stampers Club - Oct. 12](#)

[Lion King musical discount](#)

[Chicago Blackhawks discount tickets](#)

[Fermilab Lecture Series presents The Long Thaw: How humans are changing the next 100,000 Years of the Earth's climate - Oct. 22](#)

[Accelerate to a Healthy Lifestyle program](#)

[Fright Fest discount tickets at Six Flags](#)

[Scrappers Scrapbooking open house](#)

[School's Out Day Camp](#)

[Fibromyalgia awareness seminar - Oct. 11](#)

[Mental health awareness part II - Oct. 12](#)

[Down Syndrome awareness seminar - Oct. 13](#)

[Access 2007: Intro class offered Oct. 13](#)

[NALWO Children's Playgroup Halloween Party](#)

[Word 2007: New Features class offered Oct. 20](#)

[Excel 2007: New Features class offered Oct. 20](#)

[Regal Movie Theater discount tickets available](#)

[Submit an announcement](#)

## Classifieds

Find new [classified ads](#) on *Fermilab Today*.

