

# PRINCETON PLASMA PHYSICS LABORATORY

MONDAY, SEPTEMBER 17, 2012

# At PPPL THIS WEEK

MONDAY, SEPTEMBER 17 and TUESDAY, SEPTEMBER 18:

#### **Rosh Hashanah**

Happy

New Year



#### Colloquia

WEDNESDAY, SEPTEMBER 19, 4:15 p.m.

**PPPL Auditorium** 

"Coordinated Solar Energetic Events," Professor Alan M. Title, Stanford University

Refreshments at 4 p.m.

End of Summer Party
2:30 pm LSB Lobby

#### INSIDE...

- Cafeteria Menu
- Female Scientists & Engineers Needed For Mentoring Program

# National Communications Summit on U.S. Magnetic Fusion Held at Princeton



Attendees at the first Communications Summit for U.S. Magnetic Fusion at Frist Campus Center, Princeton University, Sept. 12 - 13. Front row: (left to right) Tim Meyer, TRIUMF; Julie Groeninger, Princeton U.; Richard Temkin, MIT; John DeLooper, PPPL; Kitta MacPherson, PPPL, Chuck Greenfield, GA. First step: (left to right) Glen Wurden, LANL; Steve Dean, Fusion Power Associates. Second step: Stew Smith (Princeton U.); Stewart Prager, PPPL; Lynne Degitz, ORNL/U.S. ITER; Joyce Rechtschaffen, Princeton U.; Mike Zarnstorff, PPPL.Back rows: Emily Carter, Princeton U.; Tim Fagan, PSE&G; Paul Rivenberg, MIT; Mark Haynes, Concordia Power Assoc.; Jim Willse, The Star-Ledger; Dale Meade, PPPL; Catherine Zandonella, Princeton U.; Mark Uhran, ORNL/U.S. ITER; Lauren Ugorji, Princeton U.; John Greenwald, PPPL; Adam Cohen, PPPL; Lisa Petrillo, GA; Jeanne Jackson Devoe, PPPL.. (Photo credit: Elle Starkman, PPPL Office of Communications)

#### By Jeanne Jackson DeVoe

Leaders in fusion energy science and communications came together at Princeton University last week for the Communications Summit on U.S. Magnetic Fusion to discuss a national vision to inform the public, other scientists, and public officials and industry about the promise that fusion energy holds for the future.

A.J. Stewart Smith, Princeton University's Dean of Research, welcomed the group.

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## **National Communications Summit**



At top: Adam Cohen, Deputy Director for Operations. At bottom: left, Laboratory Director Stewart Prager gives a talk on fusion. Right top: left, Glen Wurden, Los Alamos National Laboratory; right, Lauren Ugorji, Princeton University. Right bottom: left to right: Joyce Rechtschaffen, Princeton University; Julie Groeninger, Princeton University; Mark Uhran, ORNL/ U.S. ITER. (All photos: Elle Starkman, PPPL Office of Communications)





At top: Mike Zarnstorff, Deputy Director for Research, left; Mark Uhran, ORNL/ U.S. ITER, right. At bottom:Emily Carter, Gerhard R. Andlinger Professor in Energy and the Environment, Professor of Mechanical and Aerospace Engineering & Applied and Computational Mathematics, Princeton University. PPPL Science Writer John Greenwald is in the foreground. (All photos: Elle Starkman. PPPL Office of Communications)

## SUMMIT continued from page 1

"Communications and science and technology have a universal importance that's impossible to overstate," he said. He noted that the location of the Summit at the Frist Campus Center was an auspicious one since it was the very spot where many historic experiments in physics took place.

PPPL Director of Media Relations Kitta MacPherson organized the conference with John DeLooper, Head of Best Practices and Outreach. "I would like us to be guided by this thought: that what we think and dream of can be and is possible," MacPherson told attendees.

Participants agreed that there are many reasons for people to get excited about the possibility that fusion energy could provide large amounts of clean energy. "We will be able to generate abundant amounts of power," said PPPL Director Stewart Prager. "There's extremely high confidence the answer is 'yes,'" he said, to the question of whether we can produce fusion energy.

Many people observed that fusion would not negatively affect the climate, and noted that many of the materials for fusion were abundantly available in the ocean. Emily A. Carter, director of the Andlinger Center for Energy and the Environment at Princeton University, said fusion could take the place of fossil fuels that cause global warming.

Other science programs have captured the imagination of the public, participants noted. The world was fascinated by the July announcement that scientists had detected the Higgs boson particle at CERN's Large Hadron Collider in Switzerland. In a dinner discussion at the summit, Tim Meyer, Head of Strategic Planning and Communication at TRIUMF, Canada's national laboratory for particle and nuclear physics, pointed out that people were interested in a phenomenon that explains how



Tim Meyer, Head of Strategic Planning and Communications, TRIUMF, Canada. (*Photo credit: Elle Starkman, PPPL Office of Communications*) the world works and viewed the search for the particle as a quest.

The challenge for the fusion community, many agreed, is to get the public excited about something that is so far off in the future, and to communicate the effort to create fusion energy as a quest. "It's easy to get people excited about the end point," Prager said. "We have to get people excited about the intermediate results."



## PPPL'ers create information station for lobby visitors



From left, Kenny Silber and Chris Cane. (*Photo credit: Elle Starkman, PPPL Office of Communications*)

#### By Emily Silber

PPPL'ers Chris Cane and Kenny Silber have joined forces to create a computer kiosk in the Laboratory's lobby that will serve as a Web browser and interactive device for PPPL visitors.

The idea of installing one in the lobby first came to Silber a few months ago while working on a project that required the installation of "thin clients," miniature computers that don't have a hard drive or software installed locally. A computer kiosk is a Web-connected, publicly accessible computer, with some system function restrictions. The device is fixed on a podium-like cabinet and is open on some or all sides.

"The addition of a computer kiosk in our lobby will be a great benefit not only to our visitors but our employees and students who may need access to information about the Laboratory in a central location," said Steve Baumgartner, Head, Information Technology and CIO at PPPL. "Convenient access to services such as the Tiger Transit schedule and transit map, our phone directory, and other information about PPPL and our mission is long overdue. We just had to figure out how to do it securely while still providing an excellent user experience. I'm sure that once people get a taste of the possibilities, other ideas and suggestions will be flowing in."

Thinking about computer systems comes naturally to Silber, a member of PPPL since 1982.

Silber, who works mainly in the Information Technology Department while also contributing to other groups outside of his own branch of engineering, has broad experience maintaining many internal and publicly accessible servers, and developing customized websites for different divisions throughout the Lab. This background prompted him to come up with an easily maintainable and costefficient way to supply groups and visitors to PPPL with helpful information.

"Both Harry Towner and my supervisor, Paul Henderson, had the idea to use this configuration option as a cost-saving measure to set up these low-cost thin clients for users who only needed to browse internal websites, have access to their email and do local editing and reading of documents or PDF files," Silber said.

Cane and Silber were discussing these possibilities one day in Silber's office and thought that it would be beneficial and convenient to install a device in the lobby for PPPL visitors. "I recalled seeing computer kiosks — Apple, Mac computers — spread around Princeton's main campus in Frist and Dillon, so we decided to make a field trip one day to see Princeton's computer kiosks in person," Cane said.

After thorough testing and note-taking on these kiosks, Cane and Silber then procured the proper \$65 software and installed it on Silber's Apple computer for assessment. "We immediately saw the potential for a computer kiosk that uses a Web browser as the vehicle for presenting content to a user," Cane said. As the Lab's Webmaster in the Office of Communications since October 2009, Cane is responsible for the Lab's digital face to the world, and is highly focused on developing and maintaining PPPL's websites, social media presence and blogs. With over 20 years of experience in computing in corporate and academic settings, he enjoys the idea of developing novel presentations for digital information.

The computer kiosk will not only serve as an aesthetic addition to the lobby via screen saver images and video content, but will serve to "inform visitors, to

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provide them with an interactive means of getting information, about the Lab and the Lab's research, or maybe just someone's phone extension," Cane said.

The availability of this real-time data will initially allow visitors to visit nine website destinations including: PPPL's external website; Tiger Transit Shuttle Bus; PPPL Staff Phone Lookup; U.S. ITER website; Fusion Basics; Princeton weather; a map of PPPL; the U.S. DOE website; and the Princeton Site Office website. The content available on the computer kiosk can be altered and updated regularly depending on what is "fresh and useful," Cane said.

In addition, other groups, such as the AC Power Division, led by John Lacenere, are investigating the possibility of installing a display in the lobby.

It could illustrate the lab's power trend at any given time such as "meter data pertaining to net power usage at the two sites, including experimental power and office power, and information about loads at junctions where metering is available right now," Silber said.

The components making up the computer kiosk include: an Apple Mac mini computer; a large 27-inch Apple LED Cinema display; and custom kiosk software, which uses the Safari Web browser. The kiosk will provide a 'virtual' on-screen keyboard, as well as a mouse.

The main technical challenge involves making sure that the purpose of the computer kiosk is clearly defined from the start, and that "preventive measures are put in place to ensure that the computer kiosk is used for the intended purpose," Cane said. Once Cane and Silber identified the software used by Princeton, and purchased a software license, they tested it thoroughly to see how Web access could be restricted to certain sites and content.



When the designers were satisfied that the computer kiosk security features were working properly, they started thinking about what information would be viable for visitors, as well as for groups within the Lab. Many Lab members voiced their approval and desire for "some sort of informative device" in the lobby that would not only show the Princeton shuttle times, for example, but would also include interactive material such as video content from Science on Saturdays, or speeches from previous colloquiums. One person expressed the convenience of having a map or virtual tour of the Lab available so that visitors could easily navigate their way around the PPPL campus. "It was important to build consensus about the computer kiosk's intended use, and what value it can offer our visitors," Cane concluded.



# Female Scientists & Engineers Needed For Mentoring Program

PPPL's Pathways to Science program is seeking a few good women scientists and engineers for its mentoring program for budding female scientists in middle school and high school who are interested in science.

Volunteers offer their help and encouragement to young women working on science projects of their choice during the school year. Please contact Aliya

Merali, amerali@pppl.gov, ext. 2208 for more

information.





 ${\it Break fast:}$ 

7am – 10am

Continental Breakfast:

10am - 11:30am

Lunch:

11:30am - 1:30pm

Snack Service:

until 2:30pm



MONDAY, SEPT	TEMBER 17	
Early Riser	Blueberry Pancakes and Sausage	\$4.25
Country Kettle	Mexican Chicken Soup 🗳 12 oz. \$2.05 16	<b>oz.</b> \$2.55
Chef's Feature	Chicken Cordon Bleu Casserole with Home Fries	\$5.75
Grille Special	Crispy Chicken, Onions, Peppers, Mushroom, Pepper Jack, Tomato	\$5.25
Deli Special	and Chipotle Mavo Wrap w/ Fries Classic Egg Salad Hoagie with Lettuce and Tomato	\$5.00
Panini	Turkey, American, Banana Peppers, Tomato and Chipotle Mayo	\$4.75

TUESDAY, SEPTEMBER 18				
Early Riser	English Muffin Breakfast Pizza	\$3.85		
Country Kettle	<b>Crab Bisque</b> 12 oz. \$2.05 16	<b>oz.</b> \$2.55		
Command	Create Your Own Beef Burrito with all the fixings served with Black	\$5.75		
Performance Grille Special	Beans and Rice Apple Bacon Burger with Honey Dijonaise w/ Onion Rings	\$5.25		
Deli Special	Louisiana Crab Salad Wrap with Lettuce and Tomato	\$5.25		
Panini	Ham, Red Peppers, Red Onion, Tomato, Spicy Mustard and Swiss	\$4.75		

WEDNESDAY, SI	EPTEMBER 19	
Early Riser	The XL Meat Lovers Omelet with Home Fried Potatoes	\$4.25
Country Kettle	Moroccan Spiced Chickpea 🗳 12 oz. \$2.05 16	<b>oz.</b> \$2.55
Chef's Feature	Shrimp, Crab and Chorizo Paella over Rice	\$5.75
Grille Special	Grilled Chicken, Provolone, Red Pepper, Lettuce and Tomato on a Kaiser Roll with Fries	\$5.00
Deli Special	Rotisserie Chicken Salad on a Multi Grain Roll	\$5.25
Panini	Salami and 3 Cheeses with Tomato and Spicy Mayo	\$4.75

THURSDAY, SEPTEMBER 20				
Early Riser	Bacon N' Egg Lasagna	\$4.00		
Country Kettle	Creamy Roasted Red Pepper 12 oz. \$2.05 16	<b>oz.</b> \$2.55		
Chef's Feature	Chicken Croquettes with Mashed Potatoes and a Vegetable	\$5.75		
Grille Special	West Coast Turkey Burger with Roasted Pepper Spread w/ Fries	\$5.25		
Deli Special	Crispy Fried Pork Loin, Provolone, Tomato, Red Pepper and BBQ	\$5.25		
Panini	Sauce Caesar Chicken Salad	\$4.75		

FRIDAY, SEPTEMBER 21				
Early Riser	Sausage, Egg and Cheese on a Fresh Baked Croissant	\$3.85		
Country Kettle	Shrimp and Crab Mardi Gras 12 oz. \$2.0	5 <b>16 oz.</b> \$2.55		
Chef's Feature	BBQ Pulled Pork with Fries and a Vegetable	\$5.75		
Grille Special	Grilled Ham and Swiss with Tomato on a Club Roll w/ Onion Rings	\$5.25		
Deli Special	Jamaican Curry Shrimp Salad on a Mutli Grain Roll	\$5.25		
Panini	Sicilian Eggplant Parmesan	\$4.75		



Editor: Jeanne Jackson DeVoe • Graphic Designer: Gregory Czechowicz Photographer: Elle Starkman • Webmaster: Chris Cane