

## At PPPL THIS WEEK

### WEDNESDAY, MAR. 18

#### PPPL/American Red Cross Blood Drive

8 a.m. to 1 p.m. ♦ American Red Cross Bloodmobile, Lower End Parking Lot

#### Colloquium

4:15 p.m. ♦ MSB Auditorium

#### [20 years of Alcator C-Mod](#)

Dr. Martin Greenwald, Massachusetts Institute of Technology

### THURSDAY, MAR. 19

#### 2015 Young Women's Conference in Science, Technology, Engineering & Mathematics

9 a.m. to 2 p.m. ♦ Frick Chemistry Building, Princeton University

### FRIDAY, MAR. 20

#### Open Public Tour

10 a.m. ♦ LSB Lobby

Email [jjackson@pppl.gov](mailto:jjackson@pppl.gov) to register

## UPCOMING

### FRIDAY, APR. 3

#### Deadline for Green Machine Nominations

#### Open Public Tour

10 a.m. ♦ LSB Lobby

Email [jjackson@pppl.gov](mailto:jjackson@pppl.gov) to register

### WEEK OF APR. 13

Lab-wide office cleanup

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## Feder leads US ITER diagnostics as Johnson goes part-time

By John Greenwald

In a rare transition, engineer Russ Feder has stepped into a management job that a distinguished physicist last held. Feder leads PPPL's development of all diagnostic tools for US ITER, which manages U.S. contributions to the international ITER experiment, succeeding physicist Dave Johnson in that role. "I'm excited to keep the momentum going and proud to be part of our strong team," Feder said. "I also recognize the tough challenges of the job and will need the help of our team and the U.S. diagnostics community to be successful."

Feder previously served as head of engineering for the port plugs that the U.S. is developing for ITER, which is under construction in France to demonstrate the feasibility of fusion power. The plugs will house seven types of diagnostic instruments to be used in ITER operations. Now Feder is responsible for the crucial instruments as well — a task for which the versatile engineer is well prepared.

"Russ brings a strong engineering background and firsthand knowledge of US ITER diagnostics to his new position," said Mike Williams, head of engineering and infrastructure at PPPL. "He has worked extensively with the U.S. and international ITER organizations and is well respected by all participants."

The job became open when Johnson, a top designer of diagnostic equipment during a 40-year career at PPPL, decided to hand off the diagnostics post and move to part-time work. He remains head of the ITER Fabrication Department, which oversees all Laboratory work on ITER, and will manage construction of one of the seven diagnostic systems.

"Dave's contributions to the development of diagnostic instruments for fusion plasmas are widely known," said PPPL Director Stewart Prager. "He leads the ITER Fabrication Department with a steady hand and remains a highly valued participant in the Lab's ITER projects."



Dave Johnson and Russ Feder

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# Max Planck/Princeton Center for Plasma Physics Meeting



Members of the Max Planck/Princeton Center for Plasma Physics met on the Princeton main campus last week to discuss topics ranging from magnetic reconnection in space to turbulence in fusion plasmas. Pictured in the courtyard of Jadwin Hall are members including center co-directors Sibylle Günter, scientific director of the Max Planck Institute for Plasma Physics, front-row sixth from right, and PPPL Director Stewart Prager to the right of Günter.

## Transition

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Feder, whose career has included analyzing deck-mounted structures for nuclear submarines, joined PPPL in 2000 as a mechanical engineer and quickly displayed his versatility and appetite for learning. He earned a certificate in optical engineering from Stevens Technical Institute while designing diagnostics for Laboratory experiments and completed an online master's degree in nuclear engineering from Penn State University after moving to work on ITER. "I like learning and would be a student forever if I could," Feder says.

His new job poses fresh challenges. Among them will be managing budgets and schedules for the design, development and delivery of the ITER diagnostic systems, working with planning and control officer Skip Schoen and schedule analyst Emil Nassar. Coming up fast are preliminary design reviews to be held in 2016 and 2017 at ITER headquarters in Cadarache, France. "They will be our biggest next step," Feder said.

For Johnson, going part-time marks the latest move in a career filled with achievements ranging from directing diagnostics for the Tokamak Fusion Test Reactor to leading

the development of PPPL diagnostics in support of the Lab's activities in fusion facilities around the world. "A year ago I spoke with management about slowing down," he recalled. "This will leave more time for visiting family, enjoying a second home in Vermont, and pursuing new interests."

As part of the transition, Johnson and Feder have traded offices. Johnson now sits at Feder's old desk on the third-floor engineering side of the Lyman Spitzer Building, while Feder has moved into Johnson's former space, complete with a row of windowsill cactuses, near the Director's Office. One cactus is missing though: Support Administrator Kathleen Lukazik, who potted and cares for the plants, relocated a particularly expansive one to see how it would fare in Johnson's new quarters. 🌵

# A perfect fit for writer despite long commute

By Jeanne Jackson DeVoe

**R**aphael Rosen clearly relishes his new position at PPPL as a science writer. So much so that he is willing to commute three hours from New York City to PPPL – leaving his apartment each morning at 5:30 a.m.

Rosen takes a subway, two trains and a bus to get to work. But he says the opportunity to write about physics, his favorite science topic, is worth the effort. He fills a new position in which he will write articles and press releases based on papers produced by PPPL researchers.

“I really enjoy translating the highly technical prose in research papers into understandable text for the layperson, so I’m having a lot of fun so far,” Rosen said. “This job fits my passions.”

Rosen is returning to PPPL after having worked as a science writer intern in the Laboratory’s Office of Communications in the summer of 2010. He has a master’s degree in science journalism from the University of Southern California in Los Angeles, and a bachelor’s degree in philosophy from Williams College in Massachusetts.

Rosen has written about everything from the Hubble Space Telescope to yaks to dinosaur fossils. He has been published in numerous publications that include the Wall Street Journal, Scientific American, Discover, Space.com, Earth Magazine, and the NASA website. He has also penned a children’s book about outer space, entitled “Space,” part of the Read, Search & Find Series. His upcoming book about finding mathematics in everyday life, “Math Geek: From Klein Bottles to Chaos Theory, a Guide to the Nerdiest Math Facts, Theorems, and Equations,” will be published in June.

“He’s a talented writer with a deep love of science,” said Science Editor John Greenwald, who supervises Rosen. He noted that Rosen’s article on research by Andrew Zwicker regarding Laboratory uses for 3-D printed parts has already gotten widespread coverage on the Web. Several more articles are planned, including one on a pair of research papers

on the suppression of edge-localized modes (ELMs) that was published in Physical Review Letters last week.

Rosen’s challenge will be to find interesting papers before they are published so that press releases and articles can be ready for release when the publications come out. He and Greenwald have been meeting with various department heads at PPPL to encourage them to spread the word that Rosen is looking for upcoming papers.



Raphael Rosen

Rosen grew up in Winston-Salem, North Carolina, and has been living in New York City for the past three years. He and his wife Jolina, the manager of a non-profit bridal boutique in Manhattan, have a 15-month-old son named Nathaniel.

In his spare time, Rosen likes to read and draw and he is looking forward to running again in the spring. He says he has enjoyed relaxing on the way to and from PPPL and has spotted a fox, a wild turkey, and even a bald eagle during his commute. But he would like to live closer to PPPL and he and his wife hope to move to New Jersey this summer.

Rosen says he feels lucky to be at PPPL in the months before the National Spherical Torus Upgrade (NSTX-U) begins operation. “It’s exciting,” he said. “I’m happy to be starting when the Lab is experiencing such momentous change with new research on the horizon and more steps toward the creation of fusion energy.”

## PPPL kiosk gets new photos



The PPPL kiosk now has 15 new photos of NSTX-U, including the one shown here.

# PPPL plans Earth Day celebration & seeks Green Machine nominations

Plans are underway for PPPL's celebration of the 45th anniversary of Earth Day on April 22, which will feature a special Earth Day colloquium, displays, employee activities, a lunch time film screening, and the presentation of PPPL Green Machine Awards.

Please help by nominating a PPPL employee or employee teams that have helped keep PPPL green and completing the online application form by the April 3 deadline or emailing Virginia Finley at [vfinley@pppl.gov](mailto:vfinley@pppl.gov). You can also nominate yourself.


## Categories include:

- Reducing green house gas emissions
- Saving energy or water
- Reusing or recycling materials or equipment
- Reducing the use of toxic or hazardous materials
- Purchasing energy efficient, bio-based, recycled or other "green" products

## Please include the following information in your nomination:

- The nominee's name or the names in the group
- The nominee's work group
- A description of the actions taken
- A summary of how those actions helped the environment

Contact Margaret King ([mking@pppl.gov](mailto:mking@pppl.gov)) or Leanne Meyer ([lmeyer@pppl.gov](mailto:lmeyer@pppl.gov)) with questions about the awards.

Please note that while the PPPL Green Machine Awards recognize environmentally sustainable practices at work, we would also like to hear about what you're doing at home. If you've made an effort to "green your home" and would like to share your experience during Earth Day, please complete the applicable section of the online nomination form. 

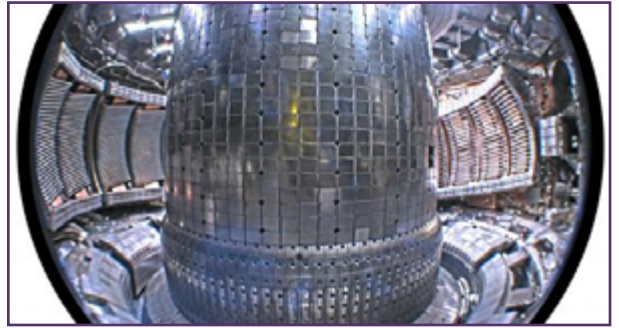


Last year's Green Machine award winners. (Photo by Dana Eckstein)

# COLLOQUIUM

## 20 years of Alcator C-Mod

**Dr. Martin Greenwald**  
Massachusetts Institute of Technology



**Wednesday, March 18**  
4:15 p.m. (coffee/tea at 4 p.m.)  
M.S.B. Auditorium, Lyman Spitzer Building

## Calling All Volunteers for Young Women's Conference



Dozens of volunteers are needed for PPPL's Young Women's Conference in Science, Technology, Engineering, and Mathematics, on Thursday, March 19 at Princeton's University's Frick Chemistry building from 8 a.m. to 2 p.m.

The event attracts more than 300 young women from seventh to tenth grade and volunteers are needed to help with everything from registration to helping out with exhibits.

Please fill out a [volunteer form](#) if you are interested in volunteering or contact Deedee Ortiz at [dortiz@pppl.gov](mailto:dortiz@pppl.gov)

# New PPPL Colloquium Page

PPPL has a new Facebook page for Colloquia with all the latest information about upcoming lectures.



American  
Red Cross



*Not all heroes wear capes.*

March is Red Cross Month. Every donation you give helps us do more of what we do.

## **PRINCETON PLASMA PHYSICS LABORATORY American Red Cross Blood Drive**

**Wednesday, March 18, 2015**

American Red Cross Bloodmobile

Lower End Parking Lot

8 a.m. to 1 p.m.

Appointments are preferred.

For an appointment or information, please contact:

**Tricia Berran**

**609-243-3200**

Or sign up online at [www.redcrossblood.org](http://www.redcrossblood.org)

Enter Sponsor Code: **PPPLPrinceton**



Download the Blood Donor App today!

[redcrossblood.org](http://redcrossblood.org) | 1-800 RED CROSS

# Brock & Co. Presents The Celebrity Guest Chef Series

Some of the biggest names in the business, from Gordon Ramsey to Paula Dean, will be right here at The Brock Café... Kind of.

Each month we will feature some of the favorite dishes of some of today's brightest culinary stars, preparing the recipes from the "Guest Chef's" own cookbook.

Everyone who purchases the featured special will not only enjoy a wonderful meal, but they will also be entered into a drawing to win one of several of the "Guest Chef's" cookbooks that will be given away that day.

**MARCH: Tyler Florence**  
"Tyler's Ultimate"

**APRIL: Alton Brown**  
"Feasting on Asphalt"

**MAY: Anthony Bourdain**  
"Les Hallas"

**JUNE: Paula Dean**  
"Southern Cooking Bible"

**BROCK**

**MARK GAZO**  
Chef Manager



BREAKFAST ..... 7 a.m. • 10 a.m.

CONTINENTAL BREAKFAST ..... 10 a.m. • 11:30 a.m.

LUNCH ..... 11:30 a.m. • 1:30 p.m.

SNACK SERVICE ..... until 2:30 p.m.

	Monday March 16	Tuesday March 17	Wednesday March 18	Thursday March 19	Friday March 20
<b>COMMAND PERFORMANCE Chef's Special</b>	<b>BBQ Turkey Meatloaf</b> Served with Onion Straws, au Gratin Potatoes & Vegetable	<b>Corned Beef &amp; Cabbage</b> with Potatoes	<b>Chipotle Lime Tuna</b> Served with Rice & Black Bean Mango Chutney	<b>Kielbasa &amp; Kraut</b> Served With Potato Cheese Pierogies	<b>FIRST DAY OF SPRING Create Your Own "Salad Command Performance"</b>
Early Riser	<b>Egg McMuffin</b> Served with Hash Browns	<b>Chicken &amp; Cheddar Omelet</b> Served With Home Fries	<b>Bagel with Lox &amp; Cream Cheese</b>	<b>Italian Omelet with Sausage, Peppers, Onions &amp; Mozzarella</b> Served with Hash Brown	<b>Denver Scramble</b>
Country Kettle	<b>Crab Bisque</b>	<b>Vegetable Chili</b>	<b>Italian Wedding Soup</b>	<b>Pasta Fagioli</b>	<b>Chicken Noodle</b>
Grille Special	<b>Hot Pastrami &amp; Cheddar on French Bread</b> with Coleslaw	<b>Grilled Corned Beef &amp; Cheddar on Rye</b> with Coleslaw	<b>Trenton Pork Roll &amp; American Cheese on a Kaiser Roll</b> Served with Disco Fries	<b>Chicken, Broccoli Rabe &amp; Provolone Cheese</b> Served on French Bread	<b>Veggie Burger</b> with Guacamole, Tomato, Cilantro Red Onion & Salsa Served with Corn Chips
Deli Special	<b>Vegetarian Chickpea Salad Sandwich</b>	<b>Ham, Salami, Mozzarella, Lettuce, Tomato &amp; Roasted Peppers Wrap</b>	<b>Jersey Italian Sub</b>	<b>Fried Fish Sandwich</b>	<b>Greek Salad Turkey Club Sandwich</b>
Panini	<b>Bacon, Cheddar &amp; Pear Panini</b> with Orange Marmalade	<b>Irish Beef Stew</b> Served with Soda Bread	<b>Philly Cheesesteak Stromboli</b>	<b>Falafel</b> Served with Chick Pea Salad	<b>Corned Beef Hash &amp; Scrambled Egg Wrap</b>

MENU SUBJECT TO CHANGE WITHOUT NOTICE

VEGETARIAN OPTION

**WEEKLY**

Editor: **Jeanne Jackson DeVoe** ♦ Layout and graphic design: **Kyle Palmer**

Photography: **Elle Starkman** ♦ Science Editor: **John Greenwald** ♦ Webmaster: **Chris Cane**

The PPPL WEEKLY is published by the [PPPL Office of Communications](#) on Mondays throughout the year except for holidays.

**DEADLINE for calendar item submissions is noon on WEDNESDAY. Other stories should be submitted no later than noon on TUESDAY.**

Comments: [commteam@pppl.gov](mailto:commteam@pppl.gov) ♦ PPPL WEEKLY is archived on the web at: <http://w3.pppl.gov/communications/weekly/>.