

## At PPPL THIS WEEK

### FEB. 18

**Colloquium**

4:15 p.m. ♦ MBG Auditorium

[U.S. Stellarator Research](#)

David Gates, PPPL

### FEB. 19

**Carebridge Seminar:  
Single Parenting**

10 a.m. ♦ MBG Auditorium

Contact Kate Harkness,  
[kharknes@pppl.gov](mailto:kharknes@pppl.gov), to register

### FEB. 20

**DOE NJ Regional Middle School  
Science Bowl**

9 a.m. to 3 p.m.

### FEB. 21

**DOE NJ Regional High School  
Science Bowl**

9 a.m. to 3 p.m.

## UPCOMING

### FEB. 28

**Ronald E. Hatcher Science on  
Saturday Lecture Series**

9:30 a.m. ♦ MBG Auditorium

[Zero-Knowledge Arms Control:  
Proving a Warhead is Real While  
Learning Nothing About It](#)

Robert Goldston, PPPL, Princeton  
University Astrophysical Sciences

### MAR. 5

**Raymond and Beverly Sackler  
Lecture in Astrophysics**

8 p.m. ♦ A-02 McDonnell Hall,  
Princeton University

[Dark Energy and Cosmic Sound](#)

Daniel Eisenstein, Harvard-Smithsonian  
Center for Astrophysics

### MAR. 19

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

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

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## Cohen to lead science lovers trek to CERN and ITER

By Jeanne Jackson DeVoe

PPPL's Deputy Director Adam Cohen will lead a group of travelers on a weeklong tour of the South of France and Switzerland next September. The group will learn about cutting-edge science at the international fusion energy experiment ITER and the European Organization for Nuclear Research (CERN).

The tour, which is being organized by the Princeton University Alumni Association's Princeton Journeys, is the first time a PPPL expert has led such an educational travel program.

"I think it's nice that we can offer the expertise of PPPL to our alumni and not only keep Princeton's leadership in the energy area in mind with alumni but also serve as a resource to those people involved with or interested in the Lab," said Leslie Rowley, associate director for alumni education in the Office of Alumni Affairs.

The "Quarks and a Quest: 21st Century Research at CERN and ITER" tour will take place from Sept. 5 to 13 and will begin in Geneva and travel from there to the south of France. The highlights include both facilities as well as day trips dedicated to exploring the history and food of the area.

Cohen said he and PPPL's Director of Communications Kitta MacPherson came up with the idea as a way of introducing Princeton alumni to the ideas behind fusion. "The idea is how do you get the movers and shakers of the world to look at things like fusion and science through different eyes," he said.

Cohen said the tour will be aimed at a general audience that is interested in science. His role will be to explain the science and technology at the various sites. MacPherson will be along as a tour group leader. "At the very least it's going to be fun and



Adam Cohen



The Globe of Science and Innovation exhibition center at CERN illuminated at night. (Photo courtesy of CERN).

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# Myers speaks at NY “Global Plasma Month” event

By Jeanne Jackson DeVoe

**P** PPL physicist Clayton Myers will be one of several early career plasma scientists who will be getting the word out about “the wonders of plasma” at several locations worldwide this month.

Myers, a postdoctoral fellow at PPPL, knows about plasma from his years of research on PPPL’s Magnetic Reconnection Experiment as a graduate student. He will give a talk entitled “A Hitchhiker’s Guide to Plasma: Solar Flares, Fusion Energy, Aurorae, and More!” at a “nerd nite” event on Feb. 27 at the Littlefield performance and art space in Brooklyn starting at about 8:20 p.m.

The nerd nite nyc events attract about 100 people who come to play a trivia game and hear about a wide range of topics. Other talks at the Feb. 27 nerd nite nyc event, for example, are “Breaking the Game,” about video games by game designer Mike Kelly, and “Molecular Gastronomy: Science You Can Eat,” by chef and food writer Kenji Magrann-Wells.

Myers’ talk is one of several “Global Plasma Month” events being organized by former PPPL graduate student Seth Dorfman, who is now a postdoctoral fellow at UCLA. Dorfman pitched the idea at an informal group of young physicists who met at the American Physical Society (APS) Division of Plasma Physics Conference in October. They call themselves “YAPS” (Young APS).

Myers said he likes the idea of raising awareness about fusion energy among young people who are interested in science. “We want to show them first that we’re making progress. I think a lot of people have the perception that fusion has been stuck on the same problem for 30 years. No, we’ve been solving problems.”

YAPS members also want to show how exciting the field is to early career scientists. “We want to show that there are a

lot of young people out there doing this,” he said.

The group was able to connect with “nerd nite” leaders, who put together monthly events with volunteer speakers at bars, restaurants, and meeting spaces all over the world.

The first lecture of “Global Plasma Month” was by Kathryn Whitman, of the University of Hawaii Institute of Astronomy, who discussed “The Sun: That fantastic ball of plasma in the sky,” at a nerd nite in Honolulu. That was followed by a Feb. 11 event in London with Christopher Chen, a research fellow at the Department of Physics of the Imperial College.

Other talks are planned in Madison, Wisconsin, on Feb. 25, Atlanta on Feb. 26 and Philadelphia on March 4. The group is working on organizing additional talks in Washington D.C., Boston, Ann Arbor, Michigan; Brighton, England; Munich and Berlin.

[The Global Plasma Month Facebook page can be found here.](#)

[More information about nerd nite nyc is available here.](#)

The Brooklyn event costs \$14 for the 7 p.m. trivia contest and the presentations, and \$10 for just the presentations. [You can purchase tickets here.](#) The group recommends buying tickets in advance since events usually sell out. 📌



Clayton Myers



Members of the National Laboratory Director’s Council met with U.S. Department of Energy Secretary Ernest Moniz on Jan. 14 in Washington, D.C. PPPL Director Stewart Prager is in the back row on the far left, and Moniz is in the center of the first row with a red and white striped tie. (Photo courtesy of U.S. Department of Energy).



## Cohen at CERN, ITER

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interesting,” Cohen said. “At the best it could be monumental in getting the right people aware of and interested and supportive of ITER.”

The first big stop will be CERN for a “behind the scenes” look at CERN, which is home to the Large Hadron Collider, the world’s largest particle accelerator, which is located 100 meters underground. The Large Haldron Collider recreates the conditions that existed just after the Big Bang. It was key to the 2012 discovery of a particle that appeared to be the Higgs boson particle at CERN in 2012. The Higgs boson is the subatomic particle that scientists believe plays a central role in giving other particles mass and therefore was a key component of the formation of the universe.


The tour group—open to Princeton alumni and non-alumni interested in these areas of research—will also make time to visit various historical sites in Geneva. They will stop at the United Nations office and the Museum of the History of Science. They will also visit the Physics School of Observatory at the University of Geneva and take a private tour of the Martin Bodmer Foundation Library and Museum.

After leaving Geneva, the group will take a private coach to Grenoble at the foot of the French Alps. There, they will visit the European Synchrotron Radiation Facility for a guided tour of the experimental hall and beam lines.

From there, they will head to the final leg of their trip in Aix-en-Provence, nearby ITER in Cadarache, France. There they will visit the site where the mammoth international fusion experiment is being built. PPPL has played a major role in the project by contributing research and development, components for ITER’s electrical network and diagnostics.

“The scale of the science being done globally is impressive,” Cohen said. “They’ll see one experiment that’s running and they’ll see one under construction. They’ll see that it takes time, resources, and dedication over a long period of time.”

They will finish the trip with a day enjoying wine and art in the French countryside with a visit to Chateau la Coste in nearby Le Puy Sainte Reparde.

“I hope that they leave with a message of the promise of fusion energy,” Cohen said. “If they can leave as ambassadors of fusion that would be ideal.” 



An aerial view of the ITER site. (Photo courtesy of ITER).



A view of the snow-capped Alps from the ITER site. (Photo courtesy of ITER).

# COLLOQUIUM

## U.S. Stellarator Research



**David Gates**  
PPPL

**Wednesday, February 18**

4:15 p.m. (coffee/tea at 4 p.m.),  
M.B.G Auditorium, Lyman Spitzer Building

## New PPPL Colloquium Page

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

PPPL Welcomes New Employees!



**MIREILLE COURY**  
*Associate Research Physicist*  
PS&T Department



**RAPHAEL ROSEN**  
*Science Communications Writer*  
Communications



Ronald E. Hatcher

## Science on Saturday LECTURE SERIES

### Zero-Knowledge Arms Control: Proving a Warhead is Real While Learning Nothing About It



**Robert Goldston**

PPPL, Princeton University Astrophysical Sciences

**Saturday, February 28**

Doors open at 8:15 a.m., lectures begin promptly at 9:30 a.m.

M.B.G Auditorium, Lyman Spitzer Building

## Raymond and Beverly Sackler Lecture in Astrophysics

### Dark Energy and Cosmic Sound



**Daniel Eisenstein**

Harvard-Smithsonian Center for Astrophysics

**Thursday, March 5**

8 p.m., A-02 McDonnell Hall, Princeton University

# Many Science Bowl Volunteers Still Needed: Feb. 20 and Feb. 21

PPPL will host 12 teams of middle school students on Friday, Feb. 20 and 32 teams of high school students on Saturday, Feb. 21 for the New Jersey Regional Middle and High School Science Bowls.

We need your help! Please volunteer to help out as moderators, science/rules judges, time/score keepers, lunch attendants, etc. Lunch will be provided for competition day volunteers.

Please contact Deedee Ortiz at [dortiz@pppl.gov](mailto:dortiz@pppl.gov) or ext. 2785 to sign up or for more information.

**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 February 16	Tuesday February 17	Wednesday February 18	Thursday February 19	Friday February 20
COMMAND PERFORMANCE <b>Chef's Special</b>	<b>Fried Chicken</b> Served with Seasoned Potato Wedges and Corn	Mardi Gras Gumbo Bar Command Performance <b>Create Your Own Gumbo Masterpiece</b> Served over Rice	<b>3 Cheese Lasagna</b> Served with Garlic Bread	<b>Pizza Casserole Pasta-Rotini Pasta</b> with Ground Beef, Pepperoni, Sausage, 3 Cheeses, and Marinara Sauce served with Garlic Bread	<b>Tilapia Fajita</b> with Cilantro Lime Rice
Early Riser	<b>Raisin Bread French Toast</b>	<b>Spanish Omelet</b> with Home Fries	<b>Scrapple and Eggs any Style</b>	<b>Cranberry Pancakes</b>	<b>Sausage Gravy and Grits</b>
Country Kettle	<b>Chicken Rice</b>	<b>Minestrone</b>	<b>French Onion</b>	<b>Lentil Soup</b>	<b>New England Clam Chowder</b>
Grille Special	<b>Bacon, Avocado, Lettuce and Tomato Burger</b>	<b>Popcorn Shrimp Po' Boy</b> Served with Hushuppies	<b>Krabby Kake Sandwich</b> on a Kaiser Roll	<b>Grilled Chicken Caesar Wrap</b>	<b>Portobello Parmesan Sandwich</b>
Deli Special	<b>Grilled Zucchini, Roasted Pepper and Feta Cheese Torpedo</b> with Dill Vinaigrette	<b>New Orleans Muffaletta</b>	<b>Egg Salad and Provolone Cheese</b> with Arugula and Tomato on French Bread	<b>Grilled Jerk Chicken</b> with Pineapple, Peppers and Onions on a Kaiser Roll	<b>Ranch Chicken Salad</b> with Bacon, Lettuce and Tomato on an Onion Roll
Panini	<b>The Cubano</b> Roast Pork, Swiss Cheese, Ham, Pickles and Dijonnaise on Ciabatta Bread	<b>Fried Catfish Torpedo</b> with Remoulade Sauce, Lettuce & Tomato Served with Hushuppies	<b>Tuna Melt on Rye Bread</b> with Swiss Cheese and Tomato	<b>Eggplant Parmesan Sandwich</b>	<b>Roast Beef, Cheddar Cheese, Steak Sauce and Onion Straws</b> on a Kaiser Roll

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/>.