

February 15, 2016



# Calendar of Events

### TUESDAY, FEB. 16

**Blood Pressure Screening** 11 a.m.-1 p.m. ◆ LSB Lobby Conducted by the OMO

#### FEB. 19-FEB. 20

**New Jersey Regional Science Bowl** 

### SATURDAY, FEB. 20

**No Science on Saturday** 

### **UPCOMING**

## WEDNESDAY, FEB. 24

#### **PPPL Colloquium**

4:15 p.m. ♦ MBG Auditorium **Initial Observations from the New Horizons Flyby of Pluto** 

Dr. Andy Cheng, Johns Hopkins University Applied Physics Laboratory

### SATURDAY, FEB. 27

Ronald E. Hatcher Science on **Saturday Lecture Series** 9:30 a.m. • MBG Auditorium Brutal Efficiency: How Mating and Reproduction Influence C. Elegans Longevity

Coleen Murphy, Princeton University

# **McComas named vice president** for the Princeton Plasma **Physics Laboratory**

By Karin Dienst, Princeton University Office of Communications

avid McComas, an executive leader in managing various complex technical projects and programs, has been named vice president for the U.S. Department of Energy's Princeton Plasma Physics Laboratory (PPPL). PPPL is the nation's leading center for the

> exploration of plasma science and magnetic fusion energy. McComas also has been appointed professor of astrophysical sciences at Princeton.

> McComas, the assistant vice president of space science and engineering at the Southwest Research Institute (SwRI), will begin his new role on April 4. He succeeds A.J. Stewart Smith, Princeton's Class of 1909 Professor of Physics and former dean for research who has served as vice president for PPPL since 2013 and is retiring in April 2017 after a sabbatical.

> The vice president for PPPL serves as the University's primary liaison with the Department of Energy (DOE) and is responsible for the management and operation of the laboratory. Reporting to Provost David S. Lee, McComas also will identify and support opportunities for collaborative research and other activities with the main Princeton campus.

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David McComas (Photo courtesy of the Southwest Research Institute)

# **Advisory Committee, wins prestigious award**

Sibylle Günter, Chair of PPPL's Scientific

By Jeanne Jackson DeVoe

ibylle Günter, the scientific director of the Max Planck Institute for Plasma Physics (IPP) and the co-chair of the Science Committee of PPPL's Advisory Board, will receive the Emmy Noether Distinction for Women in Physics award by the European Physical Society.

Günter was a founding member of PPPL's Advisory Board in 2009 and became the co-chair of its Science Committee in 2010.

"I just think that she's an outstanding scientist and a great leader," said A.J. Stewart Smith, Princeton University vice-president for PPPL who was in Greifswald, Germany for the celebration of the first hydrogen plasma on the Wendelstein 7-X (W7-X) Feb. 3. "She's been an extraordinary help to the Lab in her role as chair of the Scientific Advisory Committee. She has been a tower of strength on that committee and brings a vital international perspective."



Sibvlle Günter (Photo courtesy of the Max Planck Institute)

The announcement of the award came just a week before Günter hosted Chancellor Angela Merkel at the W7-X event. Merkel pushed the button to produce the hydrogen plasma.

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Menu

# PPPL joins national labs in publicizing careers at first National Laboratories Day

By Jeanne Jackson DeVoe

epresentatives from PPPL, the 16 other U.S. Department of Energy national laboratories, and the DOE, spread the word about career opportunities to dozens of students from historically black colleges and universities (HBCUs) at the first National Laboratories Day Career Fair at Howard University in Washington, D.C. on Feb. 4.

Andrea Moten, associate director of PPPL's Office of Human Resources, organized PPPL's participation in the event. Atiba Brereton, a PPPL engineer, and Arturo Dominguez, a physicist who is senior program leader in the Science Education Department, also participated.

"I probably walked away with 40 or 50 resumes," Moten said. "The objective of the event was to raise awareness about career opportunities at all of the national labs."



Melonie D. Parker, vice president of human resources & communications at Sandia National Laboratories, tries out a plasma ball at PPPL's display. (Photo by Atiba Brereton)

The event was organized by Melonie D. Parker, vice president of Human Resources & Communications and her staff at Sandia National Laboratories, and grew out of the Diversity Committee of the National Laboratory Human Relations Directors. The group aims to expose students and professionals from under-represented groups such as African-Americans, women, Hispanics, and American Indians to career opportunities at national laboratories.

Moten said the national laboratories are competing with large well-known companies and are rebranding themselves as employers of choice. "We all have strong individual diversity efforts but our goal is to develop best practices and to take a collaborative approach to recruiting. This effort is going to take some time to do and this is only our second year working on this strategy," Moten said. "But the student and faculty response has been positive so far."

Students from six HBCUs participated in the National Laboratories Day. They were greeted by Elizabeth Sherwood-Randall, the Deputy Secretary of Energy; LaDoris G. Harris, director of the DOE's Office of Economic Impact and Diversity; Anthony Wutoh, provost and chief academic officer at Howard University; and Gary Harris, the university's associate provost for research and graduate studies.

Moten, Brereton, and Dominguez staffed the PPPL booth and Dominguez participated in a panel discussion on



Arturo Dominguez, second from right, speaks on a career panel at National Laboratories Day at Howard University Feb. 4. (Photo by Andrea Moten)

careers. "I highlighted the opportunities for physicists and for different types of engineers to do a lot of interdisciplinary research at PPPL," Dominguez said.

Brereton, who attended Howard as an undergraduate and graduate student, was himself recruited by Moten for a PPPL internship at a career day fair at Howard, he said. "When I was first recruited I didn't possess much knowledge of PPPL or what they did, so events like these allow us to share who we are, what we do, and generate some interest," Brereton said.

Brereton and Dominguez did some personal outreach the day after the career fair when they visited a Howard University plasma physics class where Dominguez was a guest speaker.

Dominguez is collaborating with Marcus Alfred, the professor teaching the class, to establish a plasma physics course, the first at the university. Alfred came to PPPL last summer for an immersion class in plasma physics taught by Dominguez, along with Andrew Zwicker, PPPL's head of Science Education, and Jeremiah Williams, of Wittenburg University. Alfred has since consulted with Dominguez on content for the new course. This one-on-one relationship could also bring students to PPPL, Dominguez said. "I think our collaboration with Howard will help get students ready for opportunities at PPPL."



DOE Deputy Secretary Elizabeth Sherwood Randall was one of the welcoming speakers at the event. (Photo by Atiba Brereton)

# **Princeton University's Human Resources staff tours PPPL**



About a dozen staff members of Princeton University's Office of Human Resources took a tour of the Laboratory on Feb. 3 with tour guide Atiba Brereton. From left to right: Kamara Blackman, Clara Stillwagon, Jeanne Donofrio, Lana Thayer, Jeff Bergman, Nicole Klein, Colleen Murray, Jasmin Kotwal, Kay Sylla (behind Jasmin), Romy Riddick, Shelly Koonce, and Michelle Brooks.

# Ronald E. Hatcher Science on Saturday LECTURE SERIES

Feb. 20	No Science on Saturday due to DOE New Jersey Regional High School Science Bowl
Feb. 27	Brutal Efficiency: How Mating and Reproduction Influence C. Elegans Longevity Coleen Murphy, Princeton University
Mar. 5	Reimagining the Possible: Scientific Transformations Shaping the Path Towards Fusion Energy Ed Synakowski, DOE
Mar. 12	Taking the Universe's Baby Picture  David Spergel, Princeton University

Saturdays at 9:30 a.m., MBG Auditorium

## McComas named vice president

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"I am absolutely delighted that Dave will be joining us at Princeton," said Princeton Provost David S. Lee. "He will bring years of deep experience and a commitment to the missions of the lab and the University that will serve both extremely well. He is a distinguished scientist with an outstanding record of research, while also having a demonstrated record of successful leadership at both SwRI and Los Alamos National Laboratory."

"I am thrilled and honored to be joining all of the outstanding people at Princeton University and PPPL," McComas said. "The work of the lab is incredibly important to the nation and the world both scientifically and in helping to lead to what will surely be humanity's ultimate energy source."

McComas, who has worked at SwRI since 2000, helped lead the technical success and growth of the Space Science and Engineering Division.

He has been principal investigator (PI) for several space missions and instruments, with overall responsibility for all aspects of these projects, including vision and strategy, formation of high-performance teams, providing fiscal and technical management, and ensuring scientific and technical excellence.

An example of McComas' leadership is serving as PI for NASA's Interstellar Boundary Explorer (IBEX) mission, which was launched under budget in 2008. IBEX has led to numerous major discoveries and generated more than 230 refereed papers and over 4,000 citations.

McComas, who earned a bachelor's degree in physics from the Massachusetts Institute of Technology and a Ph.D. in geophysics and space physics from the University of California-Los Angeles, continues to be engaged in the academic setting. In 2004, he was a key founder of a joint SwRI and University of Texas-San Antonio M.S./Ph.D. graduate program in physics, where he is an adjoint full professor in physics and astronomy.

After earning his B.S. in 1980, McComas joined Los Alamos National Laboratory (LANL) and held a number of roles over 20 years. From starting as a technical staff member, he completed his Ph.D. and worked his way up to be founding director of the Center for Space Science and Exploration, responsible for leading all civilian space programs at Los Alamos.

Throughout his time at LANL, he served a range of customers including the DOE, NASA, Air Force and industry. He also served on the Nonproliferation and International Security Leadership Council.

McComas' scientific work includes numerous patents for mass spectrometry and other instruments. He has published more than 500 scientific and technical papers that have received over 22,000 citations.

McComas has served on numerous committees focused on developing programs in science, technology and engineering. In 2015, he completed a two-year term on the NASA Advisory Council (NAC). He also served as chair of the NAC Science Committee.

His many honors include an Exceptional Public Service Medal from NASA in 2015 and the Space Science Award from the International Committee on Space Research in 2014. He is a fellow of the American Physical Society, the American Association for the Advancement of Science and the American Geophysical Union.

McComas also serves on the board of directors of the non-profit Dyslexic Advantage.

# The OMO will be conducting a blood pressure screening

Tuesday, Feb. 16
11 a.m. to 1 p.m.
In the LSB Lobby



## Sibylle Günter award

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David Gates, a physicist and stellarator physics leader at PPPL, said Günter and Thomas Klinger, head of the Stellarator Transport and Stability Division at W7-X, shepherded the device through to its completion despite scheduling delays. "It was a major accomplishment," he said. "She also managed to maintain the good faith of the government, which is no small feat."

Gates recalled meeting Günter when they were both starting out their careers. "She very quickly became the star at IPP," he said. "She has just skyrocketed through the system."

Günter and PPPL Director Stewart Prager, along with Jim Stone, a professor in the Princeton University Department for Astrophysical Sciences, became the co-chairs of the Max Planck Princeton Research Center for Plasma Physics in 2012. The center is a joint effort by the three institutes to foster collaboration between U.S. and German researchers.

The Emmy Noether Prize for Women in Physics is named for the German mathematician who made major contributions to both abstract algebra and theoretical physics. It is awarded by the EPS twice a year in recognition of outstanding achievements of female physicists. Günter will be presented with the award at the EPS Plasma Physics Conference in Leuven, Belgium, in July.



Gunter discusses the W7-X at the celebration marking the first hydrogen plasma on Feb. 3. (Photo by A.J. Stewart Smith)



Gunter with Hutch Neilson, center, head of advanced projects at PPPL and the coordinator of the U.S. collaboration, and Thomas Klinger, head of the Stellarator Transport and Stability Division at W7-X. (Photo by A.J. Stewart Smith)

The award is being given to Günter in recognition of "her leading role in the study of the effects of microphysics on the large-scale behavior and stability of hot magnetized plasmas in fusion devices. With her outstanding scientific record, many leadership roles and mentoring of researchers and students, she is a model for women physicists."

Günter is considered one of the world's leading female scientists in the field of theoretical physics. She has been the scientific director of the Max Planck Institute since 2011 and is chair of the directorate and of the Board of Scientific Directors of IPP. She joined the IPP in 1996 as a scientific staff member and was appointed as director of the institute and head of Tokamak Physics in 2000.

Günter received the Federal Cross of Merit of the Federal Republic of Germany on the Ribbon in 2013. She was elected to the Academia Europaea in 2015. She has been vice chair of the General Assembly of the EUROfusion consortium since 2015 and was chair the previous year. She belongs to numerous other professional organizations and editorial boards.

She attended Rostock University in Rostock, Germany, as both an undergraduate and a graduate student and received a Ph.D. in theoretical physics in 1990. She was a scientific staff member at the university before joining the IPP.



Gunter, holding the microphone, with German Chancellor Angela Merkel and other officials at the first hydrogen plasma event at W7-X. (Photo by Julia Sieber, Max Planck Institute)

# Volunteers needed for the Science Bowl Feb. 19 and 20

It's Science Bowl season again and the Science Ed. Department really needs your help. Please volunteer to help with the New Jersey Regional Science Bowl Feb. 19 to Feb. 20.

On Friday, Feb. 19, PPPL will host 16 middle school teams for the Middle School Science Bowl from 9 a.m. to 3 p.m., with registration starting at 8 a.m. On Saturday, Feb. 20, PPPL will host 32 high school teams for the High School Science Bowl from 9:30 a.m. to 5 p.m., with registration starting at 8 a.m.

If you are interested in volunteering, please click on the link below that best suits you and complete the form with your preferences. If you've never volunteered before, no worries. We will train you. Please contact Deedee Ortiz at <a href="mailto:dortiz@pppl.gov">dortiz@pppl.gov</a> or ext. 2785 to sign up or for more information.

### Non-technical volunteer roles:

- Registration assistant (morning only)
- Score/Time Keeper (Because we use electronic software to keep time and score at our regionals, we combined these two roles)
- Lunch assistant
- Other help as needed before/after competitions

## **Technical volunteer roles:**

- Moderator
- Science/Rules Judge (We combine the Science Judge role and the Rules Judge role at PPPL)

Feel free to forward the links to anyone that might be interested in volunteering. We promise that you're going to have a lot of fun!

Thanks in advance for your time and assistance!!

- The Science Education Department

# Volunteers wanted for Mercer Science and Engineering Fair

Organizers of the Mercer Science and Engineering Fair are looking for scientists and engineers to volunteer as judges of fourth to twelfth-grade science projects during the fair next month at Rider University.

Students from Mercer County schools show off their original science projects at the fair from March 12 to March 15. Judging for the elementary division (grades 4 to 5) and the junior division (grades 6 to 8) takes place Sunday, March 12. Judging for the senior division takes place March 12 and March 13. Additional information about the fair is available at <a href="https://mercersec.org/about/msef">https://mercersec.org/about/msef</a>.

To volunteer, create an account online and check off judge to volunteer at <a href="https://mercersec.org/help/BecomeAJudge">https://mercersec.org/help/BecomeAJudge</a>.

BROCK

MARK GAZO
Chef Manager



	Monday <b>February 15</b>	Tuesday <b>February 16</b>	Wednesday <b>February 17</b>	Thursday <b>February 18</b>	Friday <b>February 19</b>
Command PERFORMANCE Chef's Feature	Mexican Chicken over Rice & Beans	Baked Potato Bar	COMMAND PERFORMANCE B&C's Steak Palace Authentic Philly Cheesesteaks served with Fries or Onion Rings	Baked Breaded Pork Chop served with Au Gratin Potatoes & Vegetable	DINNER & A MOVIE Tortilla Soup Carved Chipotle Chili pork with Peppers & Onions served over Saffron Rice
Early Riser	Blueberry Pancakes with Sausage	Sausage, Egg & Cheese Croissant	Corned Beef Hash & 2 Eggs Any Style	Egg, Bacon, Cheese & Porkroll Sandwich	Steak, Egg, Potato & Cheese Wrap
Country Kettle	Potato Bacon Cheddar	Split Pea	Italian Wedding	Cream of Vegetable	Tortilla Soup
Grille Special	BURGERLICIOUS Old McDonald Had a Burger Gilled Vegetarian Burger with Tomatices, Red Onion, Sliced Avocado, Sprouts and Seret Sauce on a Grilled Brioche Roll (Available All Week)	Pork Cutlet Parmesan on a Kaiser Roll	<b>Grilled Salmon</b> on a Soft Roll with Dill Caper Sauce served with Fries	Pesto Chicken with Mozzarella Cheese, Spinach & Tomato	<b>Beef Tostada</b> with Avocado Salad
Deli Special	Breaded Zucchini, Swiss Cheese & Tomato Ciabatta	Italian Foot-Long Hot Dog	Sausage & Peppers Torpedo	<b>Liverwurst &amp; Onion</b> on Rye	Chipotle Chicken Wrap with Avocado Marinated in Paprika & Lime
Panini	Andouille Sausage, Peppers & Onion Torpedo	Krabby Kake on a Kaiser	Mini Turkey Meatloaf on a Kaiser Roll with Gravy & Stuffing	Peppers, Egg, Potatoes & American Cheese on French Bread	Vegetarian Mexican Pizza served with Avocado Salad

MENU SUBJECT TO CHANGE WITHOUT NOTICE

VEGETARIAN OPTION



Editor: **Jeanne Jackson DeVoe** Layout and graphic design: **Kyle Palmer**Photography: **Elle Starkman** Science Editor: **John Greenwald** Webmaster: **Chris Cane** 

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

Comments: commteam@pppl.gov > PPPL WEEKLY is archived on the web at: http://w3.pppl.gov/communications/weekly/.