

Calendar of Events

TUESDAY, OCT. 20

Lab Management Review
8:30 a.m.

WEDNESDAY, OCT. 21

PPPL Colloquium
4:15 p.m. ♦ MBG Auditorium
[Reconnection at the Dayside
Magnetopause from MMS](#)
Dr. James Burch,
Southwest Research Institute

THURSDAY, OCT. 22

**Professional Engineers Society of
Mercer County tour**
5 p.m.

UPCOMING

THURSDAY, OCT. 29

PPPL Benefits Fair
10 a.m.-2 p.m.

NOV. 3-6

**18th International Spherical
Torus Workshop**
Princeton University

FRIDAY, NOV. 6

Public Tour
10 a.m.
tours@pppl.gov

NOV. 16-20

**American Physical Society Division
of Plasma Physics conference**
Savannah, Georgia

FRIDAY, NOV. 20

Public Tour
10 a.m.
tours@pppl.gov

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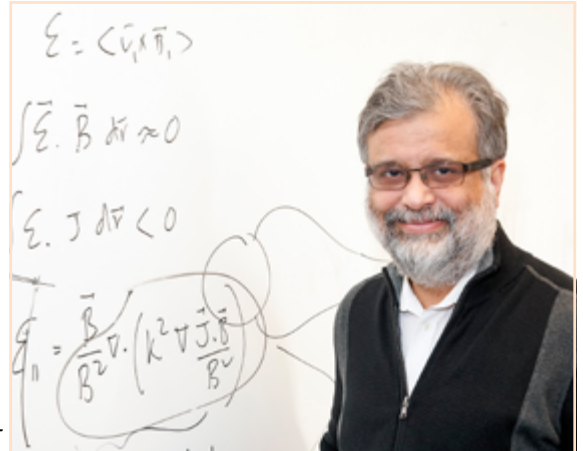
Amitava Bhattacharjee Elected a Fellow of the American Geophysical Union

by Raphael Rosen

Amitava Bhattacharjee, head of the Theory Department at PPPL and professor of astrophysical sciences at Princeton University, has been elected a fellow of the American Geophysical Union (AGU). The award, bestowed on less than one-tenth of one percent of AGU members each year, is given to those who have “made exceptional contributions to Earth and space sciences as valued by their peers.” Bhattacharjee will specifically be recognized for “seminal contributions to our understanding of reconnection processes and turbulence in the solar corona, interplanetary medium, and planetary magnetospheres.”

The award will be presented on Dec. 17 in San Francisco during the AGU’s 48th annual fall meeting. The conference, the largest Earth and space science meeting in the world, is expected to attract around 22,000 attendees and feature 23,000 oral and poster presentations.

“I feel deeply honored to have been named an AGU Fellow,” said Bhattacharjee, who is one of only three honorees from the entire space physics and aeronomy section. “Being recognized by one’s peers is deeply gratifying.”



Amitava Bhattacharjee

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New safety video library uses humor to bolster safety message

By Jeanne Jackson DeVoe

PPPPL’s new safety video library provides short, often-humorous videos on a variety of safety topics from back safety to the importance of taking a break to reduce stress.

The videos, which are posted on the internal website, grew out of an initiative of the Safety Champions Committee. They are intended to provide a short, easy way to introduce safety topics at staff meetings or safety trainings. Go to the internal website under PPPL videos and safety to [link to the library](#).

“I think it’s a great idea,” said Adam Cohen, PPPL’s deputy director for operations. “The idea of having videos that are available for people for their staff meetings is fabulous.”

Cohen said that having videos with a sense of humor helps get the message across. “Safety is not a laughing matter by any stretch of the imagination, but if you want to get people’s attention, humor is often the way to do it.”

The videos are all either in the public domain or owned by PPPL and were edited by Elle Starkman, PPPL’s multimedia specialist. Starkman worked with a team that

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Henry Carnevale

An engineer who is passionate about the future of fusion

To get an idea of Henry Carnevale's work ethic, all you need to know is that he has never taken a sick day in 25 years working at the Laboratory. He attributes this sterling record to simply being too busy to be sick and getting a flu shot every year.

Carnevale is a mechanical engineer who wears many hats. He is in charge of heating and cooling systems for D Site as HVAC and LEC Systems engineer, and oversees many projects at the Laboratory. This includes designing a redesign of those D-Site systems, which date to the 1970s, and an upgrade to state-of-the-art digital control systems. He also serves as a D-Site shift supervisor for the NSTX-U Project.

"He is the kind of guy who gets involved in anything that's needed," said Carnevale's supervisor, Martin Donohue, Facilities Engineering Division head. "He's always looking for a way to work with people and come up with a solution that everyone can live with."

"I met Henry during the commissioning of the TFTR HVAC systems," recalls engineer Charles Gentile. "He has been an active participant in just about all the big facility projects since that time."

"What impressed me about Henry when I first started working with him about 30 years ago was his understanding of the critical role that the D-Site HVAC Systems played in the safety of the TFTR D-T experiments," said Jerry Levine, head of Environment, Safety & Health. "Equally impressive was his success in getting those systems to work properly so the Lab could safely proceed with the crucial D-T work."

Carnevale was a tour guide even as a contractor and has led tours for nearly 30 years. He gets high marks from visitors for making the Lab's research understandable. A visitor on a Princeton University reunion tour last spring remarked, "Henry was great. You could tell how passionate he was about the future of fusion. It made the tour so much more enjoyable to hear his passion."

Carnevale was born in New York City and grew up in Lakehurst, New Jersey. He received a bachelor's degree in engineering from Stevens Institute of Technology. Before coming to PPPL, he worked for the BASF Corporation. He first came to PPPL for three years as an engineer for Burns and Roe Enterprises, an architectural engineering firm that was evaluating and redesigning the D Site to support TFTR deuterium-tritium operations.

A resident of Dayton, which is part of South Brunswick Township, Carnevale says he loves the "small town environment," and the fact that it is close to work, Princeton and the Jersey Shore. In his free time, he is active with his alumni organizations. Last year, he endowed a scholarship for his college fraternity, now called the "Rocco



Henry Carnevale Scholarship," by naming the group a beneficiary of his pension. He has served on many non-profit boards, including the Princeton Area YMCA. He also enjoys taking photos and traveling.

How has PPPL changed over the years?

I've noticed a renewed interest in the technology, especially from the young folks entering the field these days. Back in the day it was about gasoline prices and funding paths. Today, sustainability and climate change have become the new watchwords and along with that a more stable funding. Everything revolves around new and clean technologies, which fusion offers now more than ever.

Do you have a different role now that NSTX-U construction is completed?

My role will most likely stay the same: supporting NSTX-U operations and trouble-shooting any HVAC and facility-related issues. My contribution to the project upgrades included adding elephant trunk stations to the test cell, upgrading the desiccant dehumidifier and providing TMB ventilation support, as well as providing a negative pressure alarm system.

What is the best part of your job?

I really enjoy designing a system, building the system and maintaining the system through its life cycle and beyond. Many of my designs and installations have outlasted the experiments they were intended for and are still in use supporting ongoing work at C and D Sites.

Can you describe your volunteer activities here at PPPL?

I think it's very interesting just to meet the different people that come for tours. It's amazing how over the years

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Amitava Bhattacharjee

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Bhattacharjee was richly supported by fellow members. “He is a superb researcher in areas bridging space physics, astrophysics, and fusion; an inspiring leader; and an eloquent advocate for science,” Martin Lee, professor at the University of New Hampshire’s Space Science Center, said in his nomination letter. Concurred Gary Zank, director of the Center for Space Plasma and Aeronomic Research at the University of Alabama-Huntsville: “Amitava’s contributions have been far-reaching, fundamental, seminal, and of long-lasting impact over a range of space physics disciplines.”

Bhattacharjee joined PPPL in 2012 from the University of New Hampshire, where he held an endowed professorship and ran the Center for Integrated Computation and Analysis of Reconnection and Turbulence. He previously taught at the University of Iowa and Columbia University after earning his Ph.D. in astrophysical sciences from Princeton University. From 2006 to 2009 he was senior editor of *Journal of Geophysical Research: Space Physics*.

Bhattacharjee’s research is wide-ranging, encompassing magnetic reconnection and turbulence in fusion, space, and astrophysical plasmas, dusty plasmas, and free-electron lasers. In recent years, the primary focus of his research has been magnetic reconnection, when magnetic fields disconnect and suddenly snap together again to release large amounts of energy. He is currently co-director with physicist Jay Johnson of the Princeton Center for Heliospheric Physics. “I was educated in the plasma physics community and then moved into space physics mid-career,” he said. “The space physics community has been very receptive, and I’m grateful.”

Founded in 1919, the AGU is an international non-profit organization that has approximately 62,000 members. The organization has 23 specialties, including atmospheric and space electricity, ocean sciences, mineral and rock physics, and seismology. 📍

I Am the Lab: Henry Carnevale

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I’ve had some impact on young people. Some have come back and said, ‘I’m a mechanical engineer because of you,’ or ‘I got into this field because of you.’ I’ve had that quite a few times over the years. It’s a good feeling.

My signature event is Communiversity, which I have had the pleasure of participating in since its inception 15 years ago.

How do you view PPPL’s mission?

I believe our mission is to design, build and test magnetic fusion devices using plasma technologies to create electricity from water in a way that produces technical data for papers and to help make Ph.D. physicists along the way.

What else do you like about working here?

I really like the fact that I have not had a boring moment since I can remember. Time does fly at the Lab and my ‘experience vault’ increases every day. The Lab is like a family, it’s got its in-laws, and it’s got its crazy folks.

For the most part, I really enjoy working with the people here. I love working with the physicists. They’re very challenging. I’ve never had a problem supporting them, even with things that aren’t possible. The challenge is to make the impossible possible. 📍

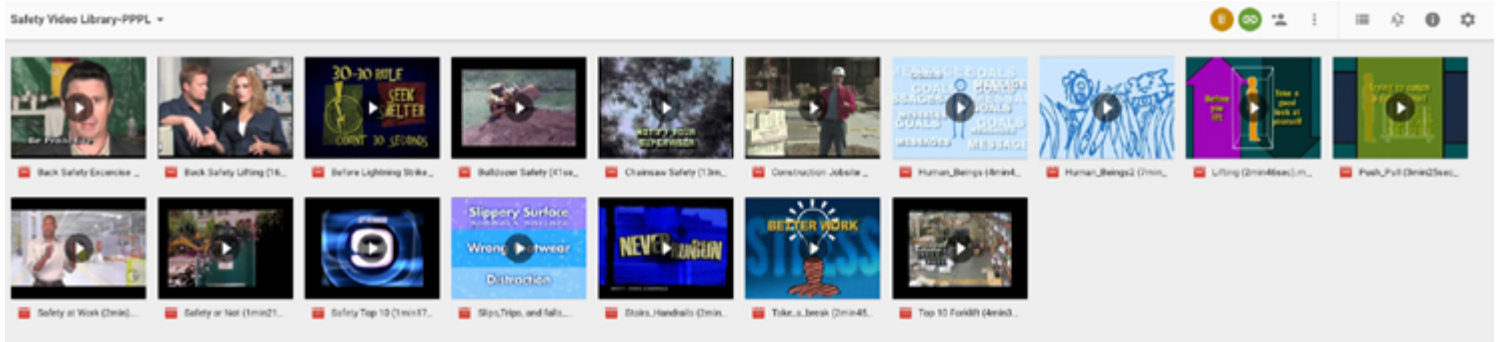
Open Enrollment begins Oct. 19

Open Enrollment for benefits will begin
Monday, Oct. 19, and ends Friday, Nov. 13.

PPPL will hold its annual Benefits Fair on
Oct. 29 from 10 a.m. to 2 p.m.

Safety video library

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A screenshot of PPPL's new safety video library.

included Barry Jedic, a quality assurance engineer and former Safety Champions Committee chair, and Julia Toth, a safety engineer, to ensure the videos reflect PPPL's safety practices.

Putting together the library took many hours of hard work, Starkman said. "We have to decide on the videos, pull in music for some of them and just try to make them as presentable as possible, given what we're working with," she said.


Jedic emphasized that the videos are not theater-quality Hollywood productions, but they do get an important message across. "The videos may not all be high-definition, but what's important to us is the subject matter, the content, and some of the humor they represent," he said.

The team plans to add to the video library, which currently has 17 videos, to include seasonal videos and new topics as they come up. The team said one of their favorites was called "Safety at Work," in which an employee at a company with a poor safety record recounts his visit to a company with a perfect record. He describes how he stepped over a yellow line while visiting the company and a forklift operator honked at him and several people yelled at him to get out of the area, including a janitor with a hard hat. "With all

that pointing and chiding and banging and honking, it cut my visit short," he says. "Come to think of it I never found out how those guys kept such a good safety record. They just must be lucky I guess!"

John DeLooper, head of Best Practices and Outreach, planned to present the video library to managers on Oct. 19. DeLooper said the Laboratory has a reputation among other laboratories in the area for taking safety very seriously, and the videos are "another tool in the toolbox." "We want our department heads to talk about safety and there's lots of ways to communicate safety. You can have a discussion but in some cases the videos will initiate better discussions."

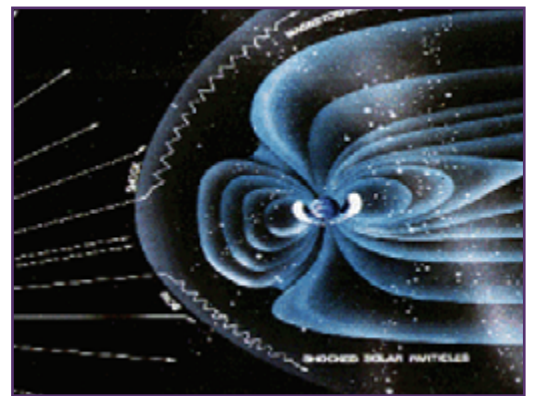
Toth said she was looking forward to seeing the videos put to good use. "I am excited to see that people are going to have another method of getting safety information out for the Lab and I want to see that people are actually using it," she said. "I think that's the most exciting part."

Anyone with questions about the library or suggestions about videos to add to the library should contact the video team at svl@pppl.gov. 

COLLOQUIUM

Reconnection at the Dayside Magnetopause from MMS


Dr. James Burch
Southwest Research Institute



Wednesday, Oct. 21

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

Princeton University Freshman Family Tours

PPPL tour guides hosted more than 150 parents and students as part of Princeton University's Freshman Family tours last week. There were 45 visitors on Friday Oct. 9, 71 visitors for the 2 p.m. tour on Saturday, Oct. 10, and 45 visitors for the 3 p.m. tour. Tour guides on Friday were: John DeLooper, Arturo Dominguez, and Shannon Greco. Tour guides on Saturday were: Brian Kraus, Russell Feder, Yuhu Zhai, Henry Carnevale, and Walter Guttenfelder. Photos by Jeanne Jackson DeVoe and Elle Starkman. 



John DeLooper shows visitors some plasma demonstrations in the MGB Auditorium during the Oct. 9 tour.



Walter Guttenfelder shows visitors the QUASAR coils during an Oct. 10 tour.



Shannon Greco shows visitors the Science Education laboratory on Oct. 9.



Brian Kraus shows Luke Ramaut, age 6, of Lake Orion, Michigan, how to light up a fluorescent bulb during an Oct. 10 tour.



Yuhu Zhai tells visitors about ITER on an Oct. 10 tour.



Henry Carnevale at QUASAR.

Fire Safety Demonstrations

PPPL's Emergency Services Unit concluded Fire Prevention Week with live fire extinguisher and fire hose demonstrations on Oct. 9. 📷



Photographer Elle Starkman dons full fire fighting equipment for a photo with John DeLooper, left, and ESU Officer James Plagge. (Photo by Susan Dever)



Gretchen Zimmer has some fun with the fire hose as ESU Officers Sean Galie and Plagge look on.



Galie helps Margaret Boateng try on a fire fighting jacket.



Laurie Bagley, with Galie, puts out a fire.



Kevin Gurbisz extinguishes a fire under the watchful eyes of Plagge.



Stacia Zelick, with Plagge, tries out the fire hose.



Galie gives some firefighting tips to Nicole Allen.

Young Women's Conference

PPPL's 15th Annual

YWC

March 18, 2016



Where: Princeton University,
Frick Chemistry Building

When: March 18, 2016

Arrival Time: 8:00AM for
group check-in. Conference
starts at 9:00AM

End: 2:00PM after keynote
session.



Registration opens October 16, 2015 and will remain open
until the registration deadline of March 1, 2016.
Hurry, space is limited!

Visit our [website](#) or contact Deedee Ortiz at
dortiz@pppl.gov, for more information.



<http://www.pppl.gov/YWC>

Flu Vaccines Are Here!

Influenza is a contagious disease caused by a virus. It can be spread by coughing, sneezing or nasal secretions.

By getting the flu vaccine, you can protect yourself from Influenza and may also avoid spreading this illness to others.

Please call the OMO at extension 3200 to make an appointment.

Thank you.

—The OMO Staff

BRÖCK

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 October 19	Tuesday October 20	Wednesday October 21	Thursday October 22	Friday October 23
COMMAND PERFORMANCE Chef's Feature	Baked Rosemary Garlic Chicken with Cajun Spiced Roasted Potatoes	Vegetarian Cowboy Tamale Pie	COMMAND PERFORMANCE Create Your Own Omelet Bar	Roast Pork with Apple Cider Sauce, Baked Sweet Potato & Vegetable	Seafood Stuffed Tilapia with Rice Pilaf
Early Riser	Grilled Cheese with Steak, Egg & Cheese	Raisin Bread French Toast with Choice of Breakfast Meat	Breakfast Enchilada with Home Fries	Grilled Cheese with Pork Roll, Egg & Cheese	Fried Spaghetti with Scrambled Eggs & Parmesan
Country Kettle	Mushroom Crab Bisque	Minestrone	Turkey Corn Chowder	Cream of Asparagus	Curry Chicken & Rice
Grille Special	Hot Pastrami & Cheddar on Rye	French Toast Monte Cristo with Grilled Pineapple, Ham, Turkey & Swiss Cheese	Flounder Parmesan Torpedo	BBQ Pulled Chicken on a Soft Roll with Slaw	Grilled Cheddar Cheese & Apple on Raisin Bread
Deli Special	Hummus Veggie Sandwich with Tapenade, Cucumber & Carrot on Multigrain	Meatloaf, Caramelized Onions, Cheddar Cheese & Russian Dressing on Rye	Roast Beef & Cheddar with BBQ Sauce & Slaw on French Bread	Pesto Tuna Salad with Jack Cheese on French Bread	Chicken Breast Gyro
Panini	Prosciutto, Pesto, Roasted Pepper & Arugula Ciabatta	Tuna Burger on Whole Grain Roll	Blackened Chicken, Muenster Cheese & Bruschetta on Ciabatta Bread	Grilled Jerk Vegetables served with Provolone Cheese Wrap served with Seasoned Corn	French Dip Sandwich with Caramelized Onions, Horseradish Cream Sauce and Potato Wedges

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 ♦ PPPL WEEKLY is archived on the web at: <http://w3.pppl.gov/communications/weekly/>.