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American Physical Society Invites New Orleans to Discover Plasma

Free science events expected to draw thousands.

NEW ORLEANS— The Plasma Sciences Expo—planned as the biggest celebration of plasma physics for students in the region—presents teachers, students and the general public with a free opportunity to explore what scientists call "the fourth state of matter."

Plasma is the energy source of the sun and other stars, and scientists from around the world are conducting plasma research to help create that same power on earth. During the week of Oct. 27, more than 1,500 plasma scientists will be gathering for the American Physical Society's Division of Plasma Physics 56th Annual Meeting in New Orleans. Plasma scientists will be at the exhibitor booths to speak with students and the public about science, research and technology, as well as their own experiences in the "hot" career field of plasma physics.

The Plasma Sciences Expo will be open for school groups on Thursday, Oct. 30, and Friday, Oct. 31, from 8 a.m. to 2 p.m. and for the general public on Thursday, Oct. 30, from 6 p.m. to 8 p.m. in the New Orleans Ernest N. Morial Convention Center. The Expo is a free event sponsored by the American Physical Society's Division of Plasma Physics and the U.S. Department of Energy.

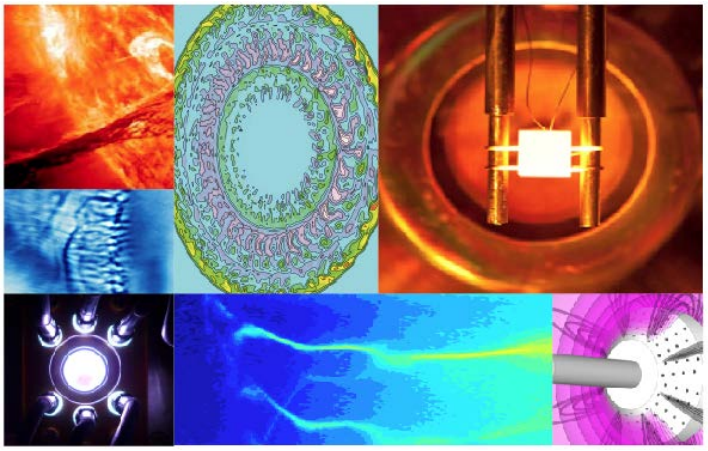

Figure 1: The images above are from some of the plasma experiments that will be discussed at the conference.

Those attending this hands-on science event will be able to create arcs of lightning, manipulate glowing plasma with magnets, and don special glasses to observe color spectra of various plasmas. Participants can play golf using protons in magnetic fields, observe their fluctuating body temperatures on a monitor, or create a cloud in a chamber. They may even explore optics using a laser.

In addition to the Expo, local teachers are invited to attend Science Teachers Day on Tuesday, Oct. 28, from 7:30 a.m. to 4 p.m., where they will spend the morning learning about the fundamentals of fusion energy and plasma science. The remainder of the day is spent in workshops of their choosing, focusing on such subjects as the nature of matter, cosmology, principles of mechanics, lasers, the electromagnetic spectrum, and Newton's Laws. The workshops align with national science standards and the Louisiana science content standards. There is no charge

for this event, but online registration is required and available on the event website at http://fusioned.gat.com/dppoutreach/. Science Teachers Day includes parking, continental breakfast, lunch and raffle prizes at no cost to participants.

Until recently, plasma was rarely mentioned in high school textbooks, though matter in the plasma state makes up 99 percent of the visible universe. Our sun, stars, the Northern Lights, solar flares and lightning bolts are all examples of naturally occurring plasmas. Man-made plasmas are used for lighting (fluorescent lights), sterilizing medical equipment, welding, manufacturing computer chips, fusion energy research and some surgical procedures.

To learn more about these free educational events, visit the Discover Plasma website at http://fusioned.gat.com/dppoutreach/.

About the American Physical Society, Division of Plasma Physics

More than 1,500 physicists gather annually to discuss the advancement of plasma science, science education and the science community. Division members represent academic institutions, national laboratories and industry from around the world. The goal of the Plasma Sciences Expo and Science Teachers Day is to increase community awareness of science and inspire students to pursue science-related careers.