



**FOR IMMEDIATE RELEASE**

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## **American Physical Society Invites San Jose to Discover Plasma**

*Free science event expected to draw thousands.*

SAN JOSE, Calif.—The Plasma Sciences Expo — planned as the biggest celebration of plasma physics in the country — presents teachers, students and the general public with a free opportunity to explore what scientists call “the 4<sup>th</sup> state of matter.”

Plasma is a gas that is so hot that its atoms break apart into charged particles. Plasma is the energy source of the sun and other stars, and scientists around the world are researching how to use plasmas to create that same power on Earth. The vast majority, 99 percent, of the visible universe is in the plasma state. 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, producing energy by fusion and medical surgery procedures.

During the week of Oct. 31 to Nov. 4, more than 1,500 plasma scientists will gather for the American Physical Society’s Division of Plasma Physics 58th Annual Meeting. At the San Jose McEnery Convention Center, plasma scientists will staff exhibitor booths to excite students and the public about science, research and technology in the “hot” career field of plasma physics.

The Plasma Sciences Expo will be open to school groups on Nov. 3 and Nov. 4 from 8 a.m. to 2:30 p.m., and to the general public on Nov. 3 from 6 to 8:30 p.m. **The Expo is a free event** sponsored by the American Physical Society’s Division of Plasma Physics and the U.S. Department of Energy.

“The event will be entirely hands-on,” says Paul Miller, the Education Outreach Chair for the Division of Plasma Physics. “You will be able to create arcs of lightning, manipulate glowing plasma with magnets, and wear special glasses to observe colors made by various plasmas.” Participants can also play golf using protons in magnetic fields, observe their body temperatures on a monitor, create a cloud in a chamber, and explore lasers.

In addition to the Expo, local teachers are invited to attend Science Teachers Day at the San Jose Hilton on Tuesday, Nov. 1 from 8 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 subjects like the nature of matter, cosmology, mechanics, lasers, the electromagnetic spectrum, and Newton's Laws. The workshops align with national science standards and California academic standards. There is no charge for this event, but online registration is required and available on the [event website](#).

Science Teachers Day includes parking and lunch at no cost to participants.

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