



News Release

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Release Number: 58-16r

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NRL's Plasma Physics Division celebrates golden anniversary at APS

WASHINGTON -- The American Physical Society Division of Plasma Physics, the U.S. Naval Research Laboratory's Plasma Physics Division, will celebrate its 50th year of groundbreaking work for the U.S. Navy and Marine Corps during their 58th annual meeting Oct. 31 to Nov. 4.

This year's meeting is being held at the San Jose McEnery Convention Center in downtown San Jose, Calif. Attendees with current or former ties to NRL's work are invited to visit the division's booth for a commemorative gift. Free limited edition copies of the *NRL Plasma Formulary* will also be available for all attendees.

"This is a significant milestone for the division and for NRL," said Dr. Thomas Mehlhorn, senior executive division superintendent. "Many great people work in the division who are contributing their expertise towards advancing plasma physics across a broad portfolio. Even more people have worked for the division – as a student intern, a postdoc, a collaborator, a contractor, or a federal employee," he said. "The division has had significant impact through its research, the Plasma Formulary, and its influence on people's careers."

As one of only a few research groups with five decades of work in the field, NRL's group developed expertise and broke ground in several fields, including high altitude electromagnetic effects, modeling behavior of complex plasma systems, laser fusion, and the Navy's electromagnetic rail gun program.

The division holds two Guinness World Records, including one for the highest projectile velocity of more than 1,000 kilometers per second, about 2.25 million miles per hour.

The division reached that threshold during experiments in 2009, using its Nike krypton fluoride laser, which studies the physics and technology issues of materials subjected to extreme pressures and radiation.

In addition to Nike, the division's investment in equipment includes two electromagnetic rail guns, the Electra electron beam facility, the two terawatt Mercury pulsed-power generator, and the space physics simulation chamber.

With its approximately 130 researchers within five branches, NRL's plasma physics division continues to advance the state of understanding in the physics of pulsed power, beams, charged particles, laser plasmas, and radiation hydrodynamics.

Videos of some of the divisions work will be posted to the NRL web site www.nrl.navy.mil during APS.

The U.S. Naval Research Laboratory provides the advanced scientific capabilities required to bolster our country's position of global naval leadership. The Laboratory, with a total complement of approximately 2,500 personnel, is located in southwest Washington, D.C., with other major sites at the Stennis Space Center, Miss., and Monterey, Calif. NRL has served the Navy and the nation for more than 90 years and continues to advance research further than you can imagine. For more information, visit the NRL website www.nrl.navy.mil or join the conversation on our Twitter, Facebook, and YouTube pages.