Séminaires @ ICARE

Electric Propulsion at the University of Michigan

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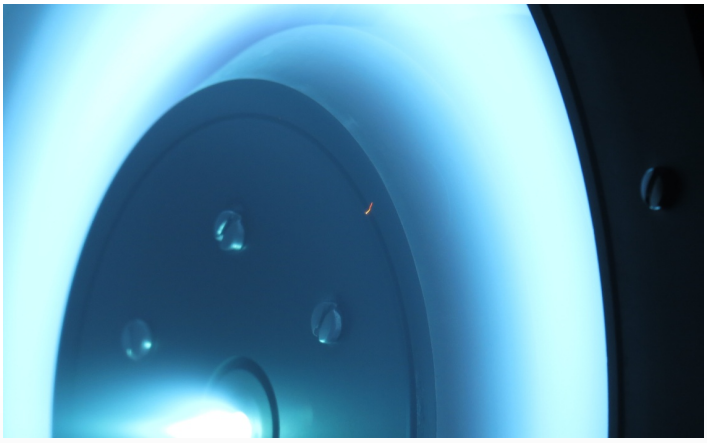
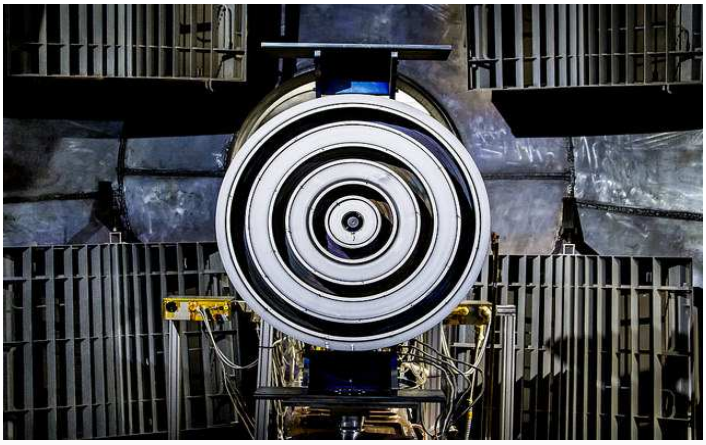
Salle de conférence, ICARE



The H9 is a 9 kW magnetically shielded (MS) laboratory Hall thruster built in a collaboration between PEPL, NASA JPL, and AFRL, and is a common test platform for experiments on MS Hall thrusters. This close up image shows the efficient shielding of the discharge chamber walls from the plasma for erosion mitigation



The X3 is a three-channel nested Hall thruster built at PEPL in collaboration with NASA JPL and AFRL, and is designed to operate at up to 200 kW of discharge power. This project is currently funded by the NASA NextSTEP initiative for the development of 100 kW class electric propulsion devices in support of manned Mars exploration.

The Plasmadynamics and Electric Propulsion Laboratory (PEPL) is a research group at the University of Michigan which focuses on the development of electric propulsion technologies. This group was created in 1992 by Prof. Alec Gallimore and is now co-headed by Prof. Benjamin Jorns.

The group has a long history in electric propulsion development, particularly in the domain of Hall plasma thrusters. This presentation explains the interest of electric propulsion for the space community, the history of electric propulsion development at the PEPL, contributions of the team to current developments, and recent efforts to increase thruster power and lifetime.

Pour tout renseignement complémentaire, ou proposition de séminaire par un thésard ou un chercheur invité, contacter Sedina Tsikata (sedina.tsikata@cnrs-orleans.fr)