Special Issue

Plasmas for Space Propulsion

Message from the Guest Editor

Electric propulsion is an enabling technology for a variety of satellite missions. Due to the nature of this technology, systems with very high specific impulse can be obtained, and a very accurate control of impulse bits is possible. The basis for all EP systems is a plasma (i.e., an electrically conductive gaseous medium) that can be accelerated due to thermal, electrostatic, or electromagnetic effects. Hence, in order to further reliability and/or develop innovative systems, a good understanding of the plasma inside the thruster and its interaction with the accelerating forces is needed. This Issue aims to broaden this understanding by collecting outstanding submissions describing experimental as well as modeling efforts dealing with plasmas for space propulsion ranging from theoretical plasma physical analyses to measurements on space-going systems.

Keywords:

- Plasma/ion thrusters
- Electric propulsion
- Plasma diagnostics
- Modeling EP

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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