Special Issue

Advances in Space Traffic Management

Message from the Guest Editors

As the number of on-orbit satellites and debris objects increases, especially with the deployment of large-scale satellite constellations, space is becoming increasingly congested. Uncontrolled growth will severely affect future space activities. Therefore, effective space traffic management (STM) becomes increasingly important to ensure that space remains a safe and stable environment. STM mainly involves the following aspects: space situational awareness, coordinating the movement of spacecraft and other objects, deploying and operating large-scale satellite constellations. avoiding collisions, debris evolution and removal, etc. Additionally, the detection, classification, response and maneuvers of non-cooperative targets are included. This Special Issue will be dedicated to exploring new perspectives in design and optimization, modeling, navigation, guidance and control in STM, not only including traditional methods but also combining artificial intelligence with traditional methods. All papers comprising new studies and technologies suitable for application in STM are welcomed.

Guest Editors

Prof. Dr. Ming Xu

Dr. Rui Zhong

Dr. Xiucong Sun

Dr. Xue Bai

Deadline for manuscript submissions

closed (31 December 2023)



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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 multidimensional network.

Editor-in-Chief

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