

Call for papers | Special Issue on Advanced optics and manufacturing techniques for space exploration

*Please contribute your submission via <https://mc03.manuscriptcentral.com/lam>. Please mark that it is a contribution to Special Issue on **Advanced optics and manufacturing techniques for space exploration** in the cover letter and “Manuscript Comment” field during submission.*

Submission deadline: 31st January, 2024

Introduction to the Special Issue:

Advanced optics and manufacturing techniques are crucial for space exploration. So far, optical technology has been widely used in low-altitude, near-space, and deep-space exploration with various platforms such as drones, airships, and satellites. For instance, high-precision optical guidance and positioning are essential for different space orbits. In addition, high-resolution optical imaging technology can provide vital support for scientific research and production tasks in space-based equipment, satellite communication, and remote sensing detection. However, as humanity's exploration of outer space advances, an increasing array of exploration and manufacturing tasks pose complex and diverse challenges to optical technology. In this context, there is an urgent need for novel optical designs and manufactures to facilitate space exploration.

This special issue aims to discuss the cutting-edge advances in the field of advanced optics and manufacturing techniques for space exploration, including but not limited to computational imaging and sensing, multi-model imaging, cooperative detection, deep-learning based optics design, novel space platforms. We aim to present a comprehensive overview and insightful perspectives of the field through the contributions of prominent experts and major industry players. Our goal is to facilitate scientific breakthroughs and drive impactful applications in the areas of space exploration and manufacturing.

Guest Editors-in-Chief:



Prof. Jun Zhang, Beijing Institute of Technology, China

Prof. Jun Zhang is an Academician of the Chinese Academy of Engineering, the CPC Party

Secretary of Beijing Institute of Technology, and the Vice Chairman of the Chinese Institute of Electronics. His major research interests are integrated space-air-ground network, aeronautical navigation and surveillance, and air traffic management.



Prof. Weiqian Zhao, Beijing Institute of Technology, China

Prof. Weiqian Zhao is a professor with Beijing Institute of Technology. He has been awarded the Yangtze River Scholar and the National Award for Excellence in Innovation. Prof. Zhao's major research interests are precision photoelectric measurement technology and its apparatus, and high special resolution spectrum detection technology.



Prof. Dezhi Zheng, Beijing Institute of Technology, China

Prof. Dezhi Zheng is a Professor with Beijing Institute of Technology. He is the author of more than 100 articles and more than 40 inventions. His research interests include sensor technology, signal detection and processing technology. He has won the second prize of 1 State Technological Invention award and 1 State Science and Technology Progress award.



Prof. Liheng Bian, Beijing Institute of Technology, China

Prof. Liheng Bian is a Professor with Beijing Institute of Technology. His research interests include computational imaging and computational sensing. He has published a monograph of Computational Imaging and Sensing, and over 50 peer-reviewed papers on Light: Science & Applications, eLight, ACS Photonics and so on.