

# Special Issue

## Artificial Intelligence and Optimization in Aircraft Design and Unmanned Aerial Vehicles, 2nd Edition

### Message from the Guest Editor

Urban air mobility opens up the possibility of a new era for air travel. UAM has emerged as a safe and efficient air transportation system where every vehicle involved, from small package delivery drones to passenger aircraft, is operating above populated areas. However, along with these promising benefits, challenges also arise. In particular, we need to create complex coupled system-level designs, realize fast interactive decision-making, and maintain higher system reliability and robustness by incentivizing cutting-edge research. One of the main forces is artificial intelligence, which enables various design optimization architectures, realizes real-time decision-making via surrogate modeling, and considers uncertainty within design optimization. In line with the goal of the *Mathematics* journal, the aim of this Special Issue is to provide a platform for researchers to present their original research contributions.

### Guest Editor

Dr. Xiaosong Du

Department of Mechanical and Aerospace Engineering, Missouri University of Science and Technology, 400 W 13th Street, Rolla, MO 65409, USA

### Deadline for manuscript submissions

closed (20 October 2025)



# Mathematics

an Open Access Journal  
by MDPI

Impact Factor 2.2  
CiteScore 4.6



[mdpi.com/si/229487](https://mdpi.com/si/229487)

*Mathematics*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[mathematics@mdpi.com](mailto:mathematics@mdpi.com)

[mdpi.com/journal/  
mathematics](https://mdpi.com/journal/mathematics)





# Mathematics

---

an Open Access Journal  
by MDPI

---

**Impact Factor 2.2**  
**CiteScore 4.6**



[mdpi.com/journal/  
mathematics](https://mdpi.com/journal/mathematics)



## About the Journal

### Message from the Editor-in-Chief

The journal *Mathematics* publishes high-quality, refereed papers that treat both pure and applied mathematics. The journal highlights articles devoted to the mathematical treatment of questions arising in physics, chemistry, biology, statistics, finance, computer science, engineering and sociology, particularly those that stress analytical/algebraic aspects and novel problems and their solutions. One of the missions of the journal is to serve mathematicians and scientists through the prompt publication of significant advances in any branch of science and technology, and to provide a forum for the discussion of new scientific developments.

---

### Editor-in-Chief

Prof. Dr. Francisco Chiclana

School of Computer Science and Informatics, De Montfort University,  
The Gateway, Leicester LE1 9BH, UK

---

### Author Benefits

#### High Visibility:

indexed within Scopus, SCIE (Web of Science), RePEc, and other databases.

#### Journal Rank:

JCR - Q1 (Mathematics) / CiteScore - Q1 (General Mathematics)

#### Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 18.4 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the first half of 2025).