

Special Issue

Statistical Modeling and Data-Driven Methods in Aviation Systems

Message from the Guest Editor

The main focus of this Special Issue is the progress of the development and implementation of statistical modeling and machine learning methods in the design and analysis of aviation systems. Such systems can be related to areas such as air traffic management, baggage handling, passenger security, and enhancement of quality and safety in air transportation. Our goal is to facilitate communication on current research and the translation of those research developments into practical applications and tools. We welcome scholars to submit research related to the theory that underlies all forms of statistical modeling and data analysis in order to apply it to aviation systems, and to practical applications thereof. Topics of interest include, but are not limited to, new machine learning methods, statistical methodology, pattern recognition as applied to air vehicle recognition, optimization techniques for air traffic management, advances in computational aspects of simulation, and acquisition and analysis of distributed system data.

Guest Editor

Dr. John H. Mott

School of Aviation and Transportation Technology, Purdue University,
West Lafayette, IN 47907, USA

Deadline for manuscript submissions

15 March 2026



Mathematics

an Open Access Journal
by MDPI

Impact Factor 2.2
CiteScore 4.6



mdpi.com/si/187175

Mathematics
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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).