

# Special Issue

## Riemannian Geometry and Its Applications

### Message from the Guest Editor

Riemannian Geometry is a generalization of differential geometry. Differential geometry studies the geometry of curves and surfaces using Calculus and Linear Algebra. Riemannian Geometry studies smooth manifolds using a Riemannian metric. Locally, manifolds have properties of Euclidean spaces or other topological spaces, often in higher dimensions. Riemannian metrics express distances by means of smooth positive definite bilinear forms. Concepts in Euclidean geometry have natural analogues in Riemannian geometry. These include, but are not limited to, arc length of curves, areas of plane regions, volumes of solids and curvature. Information geometry applies the techniques of Riemannian geometry to probability and statistics. One regards probability distributions for a statistical model as the points of a Riemannian manifold. The Fisher information provides the Riemannian metric. Prof. Dr. Marvin H. J. Gruber

---

### Guest Editor

Prof. Dr. Marvin H.J. Gruber

School of Mathematical Sciences, Rochester Institute of Technology,  
Rochester, NY 14623, USA

---

### Deadline for manuscript submissions

closed (30 June 2018)



## Mathematics

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.3  
CiteScore 4.0



[mdpi.com/si/11310](https://mdpi.com/si/11310)

*Mathematics*  
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 2.3  
CiteScore 4.0



[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 18.3 days after submission; acceptance to publication is undertaken in 1.9 days (median values for papers published in this journal in the second half of 2024).