



## Functional Differential Equations and Epidemiological Modelling, 2nd Edition

Guest Editor:

**Prof. Dr. Yongjin Li**

Department of Mathematics, Sun Yat-sen University, Guangzhou 510275, China

Deadline for manuscript submissions:

**1 June 2025**

### Message from the Guest Editor

This Special Issue aims at providing a specific opportunity to review the stability strategies for deadly diseases through modeling with functional applications. It will bring together researchers in relevant areas to discuss the latest progress, new research methodologies, and potential research topics. All original papers related to modeling and their application for optimization and control are welcome. The Special Issue will focus on, but is not limited to, the following topics:

### Topics

- Theory and applications of functional differential equations;
- Functional differential equations;
- Differential equations;
- Stochastic differential equations;
- Fractional differential equations;
- Deterministic and stochastic models of infectious diseases;
- Fractional models of infectious diseases;
- Review performance of mathematical models with delay equations with functional applications;
- Theoretical, computational, and realistic nature of infectious disease models;
- Review of the effect of new fractal differential and integral operators for modelling infectious diseases/sources;
- Chaos theory for biological problems with functional applications.





an Open Access Journal by MDPI

## Editor-in-Chief

**Prof. Dr. Francisco Chiclana**  
School of Computer Science and  
Informatics, De Montfort  
University, The Gateway,  
Leicester LE1 9BH, UK

## 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.

## Author Benefits

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:** indexed within Scopus, SCIE (Web of Science), RePEc, and other databases.

**Journal Rank:** JCR - Q1 (Mathematics) / CiteScore - Q1 (General Mathematics)

## Contact Us

---

*Mathematics* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/mathematics](http://mdpi.com/journal/mathematics)  
[mathematics@mdpi.com](mailto:mathematics@mdpi.com)  
[X@MathematicsMDPI](https://twitter.com/MathematicsMDPI)