

# Special Issue

## New Advances in Mathematical Applications for Reliability Analysis

### Message from the Guest Editors

Advancing reliability analysis through mathematical applications lies at the intersection of engineering, mathematics, statistics, and computer science. This convergence drives transformative progress in assessing and enhancing the performance, safety, and longevity of complex systems, including mechanical systems, electronic components, and industrial processes. This Special Issue aims to showcase the latest advancements in mathematical methods and models for reliability assessment across various engineering and scientific domains. It will explore topics such as probabilistic modeling, statistical inference, stochastic models, machine learning and deep learning approaches, and optimization techniques applied to reliability assessment. Contributions may include theoretical developments, computational algorithms, case studies, and interdisciplinary applications. Researchers and practitioners are invited to submit original research articles, review papers, and methodological advancements that enhance the understanding and implementation of reliability analysis in real-world scenarios.

### Guest Editors

Dr. Mesfin Ibrahim

Aviation Services Research Centre (ASRC), The Hong Kong Polytechnic University (PolyU), Block X, 11 Yuk Choi Rd, Hung Hom, Hong Kong

Dr. Jiajie Fan

Academy for Engineering & Technology, Fudan University, Shanghai 200433, China

### Deadline for manuscript submissions

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

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## 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.

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### Editor-in-Chief

Prof. Dr. Francisco Chiclana

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

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