Special Issue

Reliability Analysis and Stochastic Models in Reliability Engineering

Message from the Guest Editors

Reliability relates to the probability of the functioning of a system under specified conditions over an intended period of time. Reliability is hot topic that permeates our daily experience. Unexpected failures may cause situations dangerous to human life, unplanned production outages, etc. This is why researchers must focus on progressive methods to optimize reliability. Probability theory and statistics are basic disciplines in science and management. The domain of these disciplines in reliability covers a wide range of applications, from consumer products to health care. manufacturing to software engineering, and electronics to the environment. This Special Issue covers several topics referring to reliability analysis, including new trends and novelties in both theory and applications. Potential topics include, but are not limited to: reliability analysis and the prediction of complex systems, mathematical models for maintenance optimization, renewal processes, the methodology of Fault Tree Analysis, Bayesian methods in reliability, dynamic reliability models, multi-state system analysis, nonparametric reliability methods, and analysis of reliability data.

Guest Editors

Prof. Dr. Radim Bris

Department of Applied Mathematics, Faculty of Electrical Engineering and Computer Science, Technical University of Ostrava, Ostrava, Czech Republic

Prof. Dr. Elena Zaitseva

Department of Informatics, University of Žilina, 010 26 Žilina, Slovakia

Deadline for manuscript submissions

closed (31 July 2024)



an Open Access Journal by MDPI

Impact Factor 2.2 CiteScore 4.6



mdpi.com/si/131752

Mathematics Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 mathematics@mdpi.com

mdpi.com/journal/ mathematics



Σ

Mathematics

an Open Access Journal by MDPI

Impact Factor 2.2 CiteScore 4.6



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).