

Special Issue

Anomaly and Novelty Detection and Explainability

Message from the Guest Editor

Anomalies and novelties are very rare, and, in most cases, such observations are not available at training time. This means that machine learning methods based on traditional supervision are ruled out. The main problem in anomaly and novelty detection is to design artificial intelligence systems that are able to characterize the nature of anomalies and novelties, without seeing such observations at training time. An equally important problem is the design of artificial intelligence systems that are able to explain the decision-making process. Additional problems are related to (i) the difficulty of learning latent representations with deep neural models that disentangle normal and abnormal observations, (ii) the need to formulate new fundamental theories to clarify what anomalies can be detected, and (iii) the evaluation of proposed models in realistic scenarios. This Special Issue aims to gather articles addressing the problems enumerated above, as well as other problems related to anomaly and novelty detection.

Guest Editor

Prof. Dr. Radu Tudor Ionescu

Department of Computer Science, University of Bucharest, 14 Academiei, 010014 Bucharest, Romania

Deadline for manuscript submissions

closed (30 June 2024)



Mathematics

an Open Access Journal
by MDPI

Impact Factor 2.3
CiteScore 4.0



mdpi.com/si/86689

Mathematics
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 2.3
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).