## **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**

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#### Deadline for manuscript submissions

closed (30 June 2024)



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## 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

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