



## Generative Models in Artificial Intelligence and Their Applications II

Guest Editors:

**Dr. Mauro Castelli**

NOVA Information Management  
School (NOVA IMS), Universidade  
NOVA de Lisboa, Campus de  
Campolide, 1070-312 Lisbon,  
Portugal

**Dr. Luca Manzoni**

Department of Mathematics and  
Geosciences, University of  
Trieste, 34127 Trieste, Italy

Deadline for manuscript  
submissions:

**closed (20 May 2023)**

### Message from the Guest Editors

Dear Colleagues,

In recent years, artificial intelligence has been used to generate a significant amount of high-quality data, like images, music, and videos. The creation of such a vast amount of synthetic data was made possible due to the improved performance of different machine learning techniques, like artificial neural networks. Considering the increased interest in this area, new techniques for automatic data generation and augmentation were recently proposed. For instance, generative adversarial networks and their variants are nowadays popular techniques in the field. The creation of synthetic data was also achieved with evolutionary-based techniques, for instance in the context of multimedia artifacts creation. This Special Issue aims to collect new contributions in the area of generative models in artificial intelligence, focusing on their applications for addressing complex real-world problems in engineering, medicine, entertainment, manufacturing, optimization, business, and related fields. We kindly invite researchers to contribute their original research or review articles on these topics to this Special Issue.

Dr. Mauro Castelli

Dr. Luca Manzoni

*Guest Editors*





an Open Access Journal by MDPI

## Editor-in-Chief

**Prof. Dr. Giulio Nicola Cerullo**

Dipartimento di Fisica,  
Politecnico di Milano, Piazza L.  
da Vinci 32, 20133 Milano, Italy

## Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

## 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), Inspec, CAPlus / SciFinder, and other databases.

**Journal Rank:** JCR - Q2 (*Engineering, Multidisciplinary*) / CiteScore - Q1 (*General Engineering*)

## Contact Us

---

Applied Sciences Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

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

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