Special Issue

Computational Algebraic Topology and Neural Networks in Computer Vision

Message from the Guest Editors

In recent years, the development of methods based on neural networks is ubiquitous in computer vision. Recent research has shown that the integration of TDA into computer vision can improve performance. The integration of TDA into state-of-the-art computer vision approaches building heavily on deep neural networks is however still a challenging topic.

This Special Issue collects papers with the aim to develop novel topology-based approaches for computer vision and/or to apply topology-based approaches to improve the current state-of-the-art in computer vision. Of special interest are papers that deal with the challenge of integrating topology as the main tool into neural networks for computer vision applications.

Guest Editors

Prof. Rocio Gonzalez Diaz

Departmento de Matemática Aplicada I, Escuelta Técnica Superior de Ingeniería Informática, Universidad de Sevilla Campus, Reina Mercedes, 41012 Sevilla, Spain

Prof. Dr. Matthias Zeppelzauer

Institute of Creative Media Technologies, University of Applied Sciences, St. Pölten, Matthias Corvinus-Strasse 15, 3100 St. Pölten, Austria

Deadline for manuscript submissions

closed (29 February 2024)



Mathematics

an Open Access Journal by MDPI

Impact Factor 2.2 CiteScore 4.6



mdpi.com/si/34216

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

mdpi.com/journal/mathematics





Mathematics

an Open Access Journal by MDPI

Impact Factor 2.2 CiteScore 4.6



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).

