# Special Issue

## Mathematical Methods in Computer Vision and Its Applications

### Message from the Guest Editor

Computer vision, a rapidly growing interdisciplinary field, involves mathematical foundations in various areas such as Image Acquisition, Image Processing, 2D and 3D Object Recognition, Image Classification, Object Detection, and Shape Analysis. Central to these are the mathematical principles underlying Convolutional Neural Networks (CNNs), Facial Recognition, and their numerous applications in Autonomous Vehicles, Medical Imaging, Surveillance and Security, Augmented and Virtual Reality, and Object Simplification.

This Special Issue aims to provide researchers from academia and industry a platform to present novel mathematical work, fostering the development of theoretical concepts, equations, and algorithms to address challenges in computer vision. Emphasis is placed on contributions that advance the mathematical understanding of this field, opening new avenues for future research.

### Guest Editor

Prof. Dr. Hermilo Sánchez-Cruz

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### Deadline for manuscript submissions

closed (30 June 2025)

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# Mathematics

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# 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

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