

## Special Issue

# Advances in Pattern Recognition—Image and Time Series Analyses—through Fractal Geometry and Complexity Theory

### Message from the Guest Editors

Recently, methods based on the use of complex systems have been widely used in image analysis and pattern recognition. These methods work to analyze the organization of and interaction between the elements present in the data, such as pixels, superpixels, or objects in images and videos. To undertake such tasks, they consider concepts and approaches to complex systems, such as fractal dimension and descriptors, entropy, deterministic or random walks, complex networks or graphs, cellular automata, among others. These approaches share the ability to describe the irregularity or homogeneity of structures with a high degree of precision. This information is relevant for the functioning of both natural and artificial vision systems, helping in the accurate analysis of images, especially those extracted from nature, medical imaging or non-linear phenomena. We invite researchers to submit their original work, as well as review articles that discuss recent developments and applications in image analysis and pattern recognition. Submissions should draw on approaches from fractal descriptors and complex systems.

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### Guest Editors

Prof. Dr. Lucas C. Ribas

Dr. Leonardo F. S. Scabini

Prof. Dr. Pier Luigi Gentili

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### Deadline for manuscript submissions

17 January 2025



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### Message from the Editor-in-Chief

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#### Editor-in-Chief

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