

DGMM 2024

3rd IAPR International Conference on Discrete Geometry and Mathematical Morphology

University of Florence, Florence - Italy

April 15-18, 2024

<https://dgmm2024.dimai.unifi.it/>

It is a pleasure to announce that the 3rd IAPR International Conference on Discrete Geometry and Mathematical Morphology (DGMM 2024) will be held in Florence University, Italy, on April 15-18, 2024.

DGMM 2024 will be the third joint event between the two main conference series of IAPR TC18, the International Conference on Discrete Geometry for Computer Imagery (DGCI) and the International Symposium on Mathematical Morphology (ISMM).

DGMM offers the opportunity for researchers, students, and practitioners to share and discuss novel high quality research results within the fields of discrete geometry and mathematical morphology, and their applications to image processing and image analysis. Both theoretical and application-focused contributions related to these fields are welcome.

Important dates:

- * Title+abstract submission: ~~September 23, 2023~~ Extended to October 3, 2023
- * Paper submission deadline: ~~October 01, 2023~~ Extended to October 11, 2023
- * Preliminary author notification: December 01, 2023
- * Rebuttal deadline: December 10, 2023
- * Final acceptance: December 23, 2023
- * Camera ready deadline: February 02, 2024
- * Conference dates: April 15-18, 2024

Main topics of interest include (but are not limited to):

-- **Discrete Geometry and Combinatorial Topology:** grids, discrete objects, discrete model properties, digitization schemes, geometric transforms, metrics and distance transformation, skeletons, discrete tomography.

-- **Image Segmentation and Discrete Shape Analysis:** watershed segmentation, hierarchical segmentation, colour and multi-channel image segmentation, texture segmentation, discrete and combinatorial tools for segmentation and analysis, discrete shape representation, recognition and analysis, clustering of spatial data.

-- **Algebraic Theory:** morphology on complete lattices and semilattices, representation of morphological operators, fuzzy morphology, connected operators, morphology on graphs, morphology on surface meshes and Riemannian manifolds.

-- **Nonlinear Scale Space Theory:** morphological decompositions, morphological PDEs, level set methods, morphological wavelets, morphological regularization.

-- **Random sets Theory and Geometrical Probability:** Boolean model for sets and functions, stochastic simulation of random media.

-- **(max,+)-Mathematics and Idempotent Analysis for Image and Signal Processing.**

-- **Image Filtering:** colour and multi-channel morphology, morphology on tensor fields, geodesic transformations, adaptive morphology, attribute filtering.

-- **Computational Mathematical Morphology and Discrete Geometry:** algorithms, architectures, data structures and programming paradigms for efficient implementation of morphological and discrete geometric operators and tools.

-- **Learning based approaches to mathematical morphology and discrete geometry.**

-- **Applications:** astronomy, geosciences and remote sensing, (bio)medical imaging, material science, data analysis, document processing, content-based information retrieval, video surveillance, industrial control, visualization.

Invited speakers:

Dominique Attali, Gipsa – lab, Grenoble (FR)

Massimo Caccia, Università dell'Insubria (IT)

Laurent Najman, Université Gustave Eiffel Paris (FR)

Proceedings:

Proceedings will be published in Springer's Lecture Notes in Computer Science (LNCS) series.

Attending the conference:

Full instructions for registering and access the meeting will soon be available on the conference website:

<https://dgmm2024.dimai.unifi.it>

We would greatly appreciate if you could forward this announcement to your colleagues who might be interested!

The Organizing Committee:

Elena Barcucci, Sara Brunetti, Andrea Frosini, Elisa Pergola, and Simone Rinaldi

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