



Call for Papers ISMM'2007



8th INTERNATIONAL SYMPOSIUM ON MATHEMATICAL MORPHOLOGY

Rio de Janeiro, Brazil
October 10-13, 2007
<http://ismm.dpi.inpe.br>

This symposium is the eighth in a series of international workshops devoted to the area of mathematical morphology and its applications in image and signal processing. The scientific program will include invited talks, tutorials, contributed papers and poster presentations. Participants will have the opportunity to be exposed to the most recent developments in the field and meet colleagues from all around the world. In addition, the city of Rio de Janeiro is internationally renowned for its tourist attractions and natural beauty, displaying a unique combination of beach, mountain, and tropical rain forest all in one place.

THEMATIC AREAS

Topics of interest to the conference include:

1. Lattice Theory

- Algebraic models of images and operators
- Lattice dynamical systems
- Morphology on semilattices
- Nonlinear systems related to mathematical morphology
- Representation of morphological operators
- Fuzzy morphology

2. Geometry and Topology

- Discrete topology
- Geometrical measures and integral geometry
- Metrics and distance transforms
- Random sets and geometrical probability

3. Signal Processing

- Level set methods
- Morphological PDEs
- Morphological wavelets
- Multiresolution and scale spaces

4. Image Processing

- Color and multi-channel morphology
- Granulometries
- Image coding, compression and transmission
- Image filtering
- Image registration
- Image restoration
- Image retrieval
- Motion analysis and tracking
- Shape analysis

5. Connectivity

- Attribute-based connected filters
- Connected operators
- Connectivity theory
- Reconstructive filters

6. Segmentation

- Color image segmentation
- Geometrical and topographical segmentation
- Texture segmentation
- Watershed segmentation

7. Machine Learning

- Statistical design of morphological operators
- Morphological correlation
- Morphological similarity
- Morphological clustering
- Morphological pattern recognition

8. Algorithms and Architectures

- Efficient implementation of morphological operators
- Data structures for morphology
- Performance evaluation of algorithms

9. Applications

- Biomedical imaging
- Data analysis
- Document processing
- Geoscience and remote sensing
- Materials science
- Quality control

CONFERENCE INFORMATION

The conference website for ISMM'2007 is hosted by the Brazilian National Institute of Space Research (INPE), at the URL: <http://ismm.dpi.inpe.br/>. It contains updated information about all aspects of the conference, as well as author instructions for electronic submission. It also contains the Call for Donations to the Henk Heijmans Solidarity Fund. Upon registering for the conference, participants will be given the option to contribute to this fund. Additionally, the Organization Committee can be reached at the e-mail address: ismm2007@ime.usp.br

SUBMISSION PROCEDURES

There will be three classes of submission to ISMM'2007:

- Tutorials
- Full Papers
- Extended Abstracts (to be presented as posters)

Prospective authors are invited to submit contributions in one or more of the categories above, using the electronic procedure described on the conference web site. All submissions must be written in English and include the names, addresses, and e-mail addresses of the authors. Document length (including artwork and references) is limited to 12 pages in B5 format (18.2 x 25.7 cm) for full papers and 2 pages in A4 format (21 x 29.7 cm) for extended abstracts, with no a-priori length limit for tutorial proposals (initial submission of tutorial proposals may consist of extended summaries). Authors are strongly encouraged to adopt the LaTeX typesetting system for submission (appropriate style files are available from the conference website).

In case of problems with the electronic procedure, the authors are advised to contact the Organization Committee at the address: ismm2007@ime.usp.br

Acceptance of full papers will be based on appropriateness of the topic, quality, novelty, and clarity of exposition. Each full paper will be reviewed by at least two referees appointed by the Program Committee. The reviews will be returned to the authors. Extended abstracts are held to a lower requirement of novelty and completeness, and will be reviewed by the Poster Session chairpersons. Tutorials will be evaluated by the Organizing Committee for merit, breadth, timeliness, and usefulness to the ISMM'2007 targeted audience.

All accepted contributions will appear in the online proceedings, whereas accepted full papers will also appear in a printed book. Both will be available at the start of the conference. Final submissions of accepted contributions will have to be prepared by the authors in camera-ready form using LaTeX, according to style files provided on the conference web site (final submissions do not include any audiovisual materials to be presented during the conference). There are plans for a special issue of a peer-reviewed journal in the field of image analysis, containing expanded versions of the best full papers, as judged by the Program Committee (details to be announced on the website).

IMPORTANT DATES

The following table gives the deadlines for all three submission categories:

	Tutorials	Full Papers	Ext. Abstracts
Initial Submission	March 2 2007	March 19 2007	June 15 2007
Notification of acceptance	March 16 2007	May 16 2007	*
Camera-ready submission	August 31 2007	July 6 2007	August 27 2007

*3 weeks after the initial submission but not before June 16, 2007.

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Last update: March 1st, 2007