

Wednesday, September 30

Greeting	8:00 - 9:00
Registration and coffee Bienvenue talk	8:00 - 8:45 8:45 - 9:00

Invited Lecture	9:00 - 10:00
Arithmetic Discrete Planes are Quasicrystals <i>Valérie Berthé</i>	

Coffee break

Discrete Shape Representation, Recognition and Analysis I	10:30 - 11:20
Efficient Lattice Width Computation in Arbitrary Dimension <i>Émilie Charrier, Lilian Buzer, Fabien Feschet</i>	10:30 - 10:55
Christoffel and Fibonacci Tiles <i>Alexandre Blondin-Massé, Srečko Brlek, Ariane Garon, Sébastien Labbé</i>	10:55 - 11:20

Discrete and Combinatorial Tools for Image Segmentation and Analysis I	11:20 - 12:10
Ellipse detection with elemental subsets <i>Peter Veelaert</i>	11:20 - 11:45
Multivariate Watershed Segmentation of Compositional Data <i>Michael Hanselmann, Ulrich Köthe, Bernhard Y. Renard, Marc Kirchner, Ron M. A. Heeren, Fred A. Hamprecht</i>	11:45 - 12:10

Lunch

Discrete and Combinatorial Topology I	14:00 - 14:50
Topology-preserving thinning in 2-D pseudomanifolds <i>Nicolas Passat, Michel Couprie, Loïc Mazo, Gilles Bertrand</i>	14:00 - 14:25
Distances on Lozenge Tilings <i>O. Bodini, T. Fernique, É. Remila</i>	14:25 - 14:50

Models for Discrete Geometry I	14:50 - 15:40
Arithmetization of a Circular Arc <i>Aurélië Richard, Guy Wallet, Laurent Fuchs, Eric Andres, Gaëlle Largeteau-Skapin</i>	14:50 - 15:15
Patterns in discretized parabolas and length estimation <i>Alain Daurat, Mohamed Tajine, Mahdi Zouaoui</i>	15:15 - 15:40

Coffee break

Geometric Transforms I	16:10 - 17:00
The $\langle 3,4,5 \rangle$ curvilinear skeleton <i>Carlo Arcelli, Gabriella Sanniti di Baja, Luca Serino</i>	16:10 - 16:35
Appearance Radii in Medial Axis Test Mask for Small Planar Chamfer Norms <i>Jérôme Hulin, Édouard Thiel</i>	16:35 - 17:00

Discrete Tomography	17:00 - 17:50
Solving some instances of the 2-color problem <i>S. Brocchi, A. Frosini, S. Rinaldi</i>	17:00 - 17:25
Grey level estimation for discrete tomography <i>K.J. Batenburg, W. van Aarle, J. Sijbers</i>	17:25 - 17:50
Social event	18:30 - 19:30
Visit of the <i>Point à Callière</i> museum	

Thursday, October 1

Morning coffee	8:30 - 9:00
Invited Lecture	9:00 - 10:00
Affine connections, and midpoint formation <i>Anders Kock, IAPR Distinguished Speaker</i>	

Coffee break

Discrete Shape Representation, Recognition and Analysis II	10:30 - 11:20
An Improved Coordinate System for Point Correspondences of 2D Articulated Shapes <i>Adrian Ion, Yll Haxhimusa, Walter G. Kropatsch</i>	10:30 - 10:55
Two linear-time algorithms for computing the minimum length polygon of a digital contour <i>Xavier Provençal, Jacques-Olivier Lachaud</i>	10:55 - 11:20

Fast Track I	11:20 - 12:10
On Three Constrained Versions of the Digital Circular Arc Recognition Problem <i>Tristan Roussillon, Laure Tougne, Isabelle Sivignon</i>	
Convergence of binomial-based derivative estimation for C^2 noisy discretized curves <i>Henri-Alex Esbelin, Rémy Malgouyres</i>	
Optimal Partial Tiling of Manhattan Polyominoes <i>Olivier Bodini, Jérémie Lumbroso</i>	
Multiscale Discrete Geometry <i>Mouhammad Said, Jacques-Olivier Lachaud, Fabien Feschet</i>	
Vanishing Point Detection with an Intersection Point Neighborhood <i>Frank Schmitt and Lutz Priese</i>	
Multi-Label Simple Points Definition for 3D Images Digital Deformable Model <i>Alexandre Dupas, Guillaume Damiand, Jacques-Olivier Lachaud</i>	
Marching Triangle Polygonization for Efficient Surface Reconstruction from its Distance Transform <i>Marc Fournier, Jean-Michel Dischler, Dominique Bechmann</i>	
Discrete Versions of Stokes' Theorem Based on Families of Weights on Hypercubes <i>Gilbert Labelle, Annie Lacasse</i>	
Decomposing Cavities in Digital Volumes into Products of Cycles <i>Ainhoa Berciano, Helena Molina-Abril, Ana Pacheco, Paweł Pilarczyk, Pedro Real</i>	
Characterization of simple closed surfaces in Z^3 : A new proposition with a graph-theoretical approach <i>Rémy Malgouyres, Jean-Luc Toutant</i>	

Lunch

Discrete and Combinatorial Tools for Image Segmentation and Analysis	14:00 - 14:50
Pixel Approximation Errors in Common Watershed Algorithms <i>Hans Meine, Peer Stelldinger, Ullrich Köthe</i>	
Digital Deformable Model Simulating Active Contours <i>François de Veilleville, Jacques-Olivier Lachaud</i>	

Fast Track II	14:50 - 15:40
Border Operator for Generalized Maps <i>Sylvie Alayrangues, Samuel Peltier, Guillaume Damiand, P. Lienhardt</i>	
Computing Homology: A Global Reduction Approach <i>D. Corriveau, M. Allili</i>	
Surface sketching with a voxel-based skeleton <i>Jean-Luc Mari</i>	
Minimal Offsets that Guarantee Maximal or Minimal Connectivity of Digital Curves in nD <i>Valentin E. Brimkov, Reneta P. Barneva, Boris Brimkov</i>	
On the connecting thickness of arithmetical discrete planes <i>Eric Domenjoud, Damien Jamet, Jean-Luc Toutant</i>	
A discrete λ -medial axis <i>John Chaussard, Michel Couprie, Hugues Talbot</i>	
Lower and Upper Bounds for scaling factors used for Integer Approximation of 3D Anisotropic Chamfer Distance Operator <i>Didier Coquin, Philippe Bolon</i>	
A Novel Algorithm for Distance Transformation on Irregular Isothetic Grids <i>Antoine Vacavant, David Coeurjolly, Laure Tougne</i>	
Fully Parallel 3D Thinning Algorithms Based on Sufficient Conditions for Topology Preservation <i>Kálmán Palágyi, Gábor Németh</i>	
The 1-color problem and the Brylawski model <i>S. Brocchi, A. Frosini, S. Rinaldi</i>	

Coffee	
Poster session	15:40 - 18:00
Gala diner	19:00 -

Friday, October 2

Morning coffee	9:00 - 9:30
Invited Lecture	9:30 - 10:30
Mathematics in Atmospheric Sciences: an Overview <i>Pierre Gauthier</i>	

Coffee break

Discrete and Combinatorial Topology II	11:00 - 11:50
Jordan curve theorems with respect to certain pretopologies on Z^2 <i>Josef Šlapal</i>	11:00 - 11:25
Thinning algorithms as multivalued N-retractions <i>Carmen Escribano, Antonio Giraldo, María Asunción Sastre</i>	11:25 - 11:50

Models for Discrete Geometry IIa	11:50 - 12:15
Universal spaces for (k, \bar{k}) -surfaces <i>J. C. Ciria, E. Domínguez, A. R. Francés, A. Quintero</i>	11:50 - 12:15

Lunch

Models for Discrete Geometry IIb	14:15 - 14:40
A linear time and space algorithm for detecting path intersection <i>Srečko Brlek, Michel Koskas, Xavier Provençal</i>	14:15 - 14:40

Geometric Transforms II	14:40 - 15:30
Exact, scaled image rotation using the Finite Radon Transform <i>Imants Svalbe</i>	14:40 - 15:05
Quasi-Affine Transformation in Higher Dimension <i>Valentin Blot, David Coeurjolly</i>	15:05 - 15:30

Farewell speach	15:30 -
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