| | | |
|---|---|---|
| 1. | Record Nr. | UNISA996465627803316 |
| | Titolo | Discrete Geometry for Computer Imagery [[electronic resource] ] : 15th IAPR International Conference, DGCI 2009, Montréal, Canada, September 30 - October 2, 2009, Proceedings / / edited by Srecko Brlek, Christophe Reutenauer, Xavier Provençal |
| | Pubbl/distr/stampa | Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2009 |
| | ISBN | 3-642-04397-6 |
| | Edizione | [1st ed. 2009.] |
| | Descrizione fisica | 1 online resource (XII, 540 p.) |
| | Collana | Image Processing, Computer Vision, Pattern Recognition, and Graphics ; ; 5810 |
| | Classificazione | DAT 756f<br>SS 4800 |
| | Disciplina | 006.601516 |
| | Soggetti | Computer graphics<br>Pattern recognition<br>Optical data processing<br>Computer science—Mathematics<br>Algorithms<br>Computer Graphics<br>Pattern Recognition<br>Image Processing and Computer Vision<br>Computer Imaging, Vision, Pattern Recognition and Graphics<br>Discrete Mathematics in Computer Science<br>Algorithm Analysis and Problem Complexity<br>Kongress.<br>Montreal (2009) |
| | Lingua di pubblicazione | Inglese |
| | Formato | Materiale a stampa |
| | Livello bibliografico | Monografia |
| | Note generali | Bibliographic Level Mode of Issuance: Monograph |
| | Nota di bibliografia | Includes bibliographical references and index. |
| | Nota di contenuto | Invited Papers -- Arithmetic Discrete Planes Are Quasicrystals -- Affine Connections, and Midpoint Formation -- Mathematics in Atmospheric Sciences: An Overview -- Discrete Shape Representation, Recognition and Analysis -- On Three Constrained Versions of the Digital Circular Arc Recognition Problem -- Efficient Lattice Width Computation in |

Arbitrary Dimension -- Convergence of Binomial-Based Derivative Estimation for C 2 Noisy Discretized Curves -- Christoffel and Fibonacci Tiles -- Optimal Partial Tiling of Manhattan Polyominoes -- An Improved Coordinate System for Point Correspondences of 2D Articulated Shapes -- Two Linear-Time Algorithms for Computing the Minimum Length Polygon of a Digital Contour -- Multiscale Discrete Geometry -- Discrete and Combinatorial Tools for Image Segmentation and Analysis -- Vanishing Point Detection with an Intersection Point Neighborhood -- Ellipse Detection with Elemental Subsets -- Multi-Label Simple Points Definition for 3D Images Digital Deformable Model -- Marching Triangle Polygonization for Efficient Surface Reconstruction from Its Distance Transform -- Multivariate Watershed Segmentation of Compositional Data -- Pixel Approximation Errors in Common Watershed Algorithms -- Digital Deformable Model Simulating Active Contours -- Discrete and Combinatorial Topology -- Topology-Preserving Thinning in 2-D Pseudomanifolds -- Discrete Versions of Stokes' Theorem Based on Families of Weights on Hypercubes -- Distances on Lozenge Tilings -- Jordan Curve Theorems with Respect to Certain Pretopologies on  -- Decomposing Cavities in Digital Volumes into Products of Cycles -- Thinning Algorithms as Multivalued -Retractions -- Characterization of Simple Closed Surfaces in ?3: A New Proposition with a Graph-Theoretical Approach -- Border Operator for Generalized Maps -- Computing Homology: A Global Reduction Approach -- Models for Discrete Geometry -- Surface Sketching with a Voxel-Based Skeleton -- Minimal Offsets That Guarantee Maximal or Minimal Connectivity of Digital Curves in nD -- Arithmetization of a Circular Arc -- On the Connecting Thickness of Arithmetical Discrete Planes -- Patterns in Discretized Parabolas and Length Estimation -- Universal Spaces for Surfaces -- A Linear Time and Space Algorithm for Detecting Path Intersection -- Geometric Transforms -- The Curvilinear Skeleton -- A Discrete ?-Medial Axis -- Appearance Radii in Medial Axis Test Mask for Small Planar Chamfer Norms -- Exact, Scaled Image Rotation Using the Finite Radon Transform -- Lower and Upper Bounds for Scaling Factors Used for Integer Approximation of 3D Anisotropic Chamfer Distance Operator -- A Novel Algorithm for Distance Transformation on Irregular Isothetic Grids -- Fully Parallel 3D Thinning Algorithms Based on Sufficient Conditions for Topology Preservation -- Quasi-Affine Transformation in Higher Dimension -- Discrete Tomography -- Solving Some Instances of the 2-Color Problem -- Grey Level Estimation for Discrete Tomography -- The 1-Color Problem and the Brylawski Model.

| Sommario/riassunto | This book constitutes the refereed proceedings of the 15th IAPR International Conference on Discrete Geometry for Computer Imagery, DGCI 2009, held in Montréal, Canada, in September/October 2009. The 42 revised full papers were carefully reviewed and selected from numerous submissions. The papers are organized in topical sections on discrete shape, representation, recognition and analysis; discrete and combinatorial tools for image segmentation and analysis; discrete and combinatorial Topology; models for discrete geometry; geometric transforms; and discrete tomography. |