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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Digital Geometry and Topology: Curves and Surfaces -- Connectivity Preserving Voxel Transformation -- Thinning on Quadratic, Triangular, and Hexagonal Cell Complexes -- Experimental Comparison of Continuous and Discrete Tangent Estimators Along Digital Curves -- Polyhedral Surface Approximation of Non-convex Voxel Sets through the Modification of Convex Hulls -- Weighted Neighborhood Sequences in Non-standard Three-Dimensional Grids -- Parameter Optimization -- Computing Homology Generators for Volumes Using Minimal Generalized Maps -- Digital Segments and Hausdorff Discretization -- Combinatorics in Digital Spaces: Lattice Polygons, Polytopes, Tilings, and Patterns -- Scaling of Plane Figures That Assures Faithful Digitization -- Computing Admissible Rotation Angles from Rotated Digital Images -- On the Number of hv-Convex Discrete Sets -- Finding the Orthogonal Hull of a Digital Object: A Combinatorial Approach -- A Discrete Approach for Supervised Pattern Recognition -- Image Representation, Segmentation, Grouping, and Reconstruction -- Robust Decomposition of Thick Digital Shapes -- Segmentation of Noisy Discrete Surfaces -- MRF Labeling with a Graph-Shifts Algorithm -- Label Space: A Multi-object Shape Representation -- A New Image Segmentation Technique Using Maximum Spanning Tree --

Applications of Computational Geometry, Integer and Linear Programming to Image Analysis -- Reducing the Coefficients of a Two-Dimensional Integer Linear Constraint -- A Branch & Bound Algorithm for Medical Image Registration -- Global Optimization for First Order Markov Random Fields with Submodular Priors -- Transformation Polytopes for Line Correspondences in Digital Images -- Linear Boundary and Corner Detection Using Limited Number of Sensor Rows -- Fuzzy and Stochastic Image Analysis, Parallel Architectures and Algorithms -- A Convergence Proof for the Horn-Schunck Optical-Flow Computation Scheme Using Neighborhood Decomposition -- Topologically Correct 3D Surface Reconstruction and Segmentation from Noisy Samples -- Detecting the Most Unusual Part of a Digital Image -- Labeling Irregular Graphs with Belief Propagation -- Grammars and Models for Image or Scene Analysis -- Image Registration Using Markov Random Coefficient Fields -- A Secret Sharing Scheme for Digital Images Based on Two-Dimensional Linear Cellular Automata -- Pure 2D Picture Grammars (P2DPG) and P2DPG with Regular Control -- A Deterministic Turing Machine for Context Sensitive Translation of Braille Codes to Urdu Text -- Rewriting P Systems Generating Iso-picture Languages -- Discrete Tomography, Medical Imaging, and Biometrics -- Reconstructing a Matrix with a Given List of Coefficients and Prescribed Row and Column Sums Is NP-Hard -- A Reasoning Framework for Solving Nonograms -- A Memetic Algorithm for Binary Image Reconstruction -- Personal Identification Based on Weighting Key Point Scheme for Hand Image -- A Min-Cost-Max-Flow Based Algorithm for Reconstructing Binary Image from Two Projections Using Similar Images -- Comparison of Local and Global Region Merging in the Topological Map -- Novel Edge Detector.
