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Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Discrete Geometry for Computer Imagery -- Topological Digital Topology -- Fuzzy Spatial Relationships from Mathematical Morphology for Model-Based Pattern Recognition and Spatial Reasoning -- Shape Similarity and Visual Parts -- On the Morphological Processing of Objects with Varying Local Contrast -- Watershed Algorithms and Contrast Preservation -- Digital Flatness -- Shape Preserving Digitization of Ideal and Blurred Binary Images -- Towards Digital Cohomology -- New Results about Digital Intersections -- On Local Definitions of Length of Digital Curves -- Characterising 3D

Objects by Shape and Topology -- Homotopic Transformations of Combinatorial Maps -- Combinatorial Topologies for Discrete Planes -- Convex Structuring Element Decomposition for Single Scan Binary Mathematical Morphology -- Designing the Lattice for Log-Polar Images -- On Colorations Induced by Discrete Rotations -- Binary Shape Normalization Using the Radon Transform -- 3D Shape Matching through Topological Structures -- Contour-Based Shape Representation for Image Compression and Analysis -- Systematized Calculation of Optimal Coefficients of 3-D Chamfer Norms -- Look-Up Tables for Medial Axis on Squared Euclidean Distance Transform -- Discrete Frontiers -- Towards an Invertible Euclidean Reconstruction of a Discrete Object -- Reconstruction of Discrete Surfaces from Shading Images by Propagation of Geometric Features -- Shape Representation and Indexing Based on Region Connection Calculus and Oriented Matroid Theory -- Incremental Algorithms Based on Discrete Green Theorem -- Using 2D Topological Map Information in a Markovian Image Segmentation -- Topology Preservation and Tricky Patterns in Gray-Tone Images -- Shortest Route on Height Map Using Gray-Level Distance Transforms -- On the Use of Shape Primitives for Reversible Surface Skeletonization -- d-Dimensional Reverse Euclidean Distance Transformation and Euclidean Medial Axis Extraction in Optimal Time -- Efficient Computation of 3D Skeletons by Extreme Vertex Encoding -- Surface Area Estimation of Digitized Planes Using Weighted Local Configurations -- Surface Area Estimation in Practice -- Perimeter and Area Estimations of Digitized Objects with Fuzzy Borders -- Geodesic Object Representation and Recognition -- A Fast Algorithm for Reconstructing hv-Convex 8-Connected but Not 4-Connected Discrete Sets -- Stability in Discrete Tomography: Linear Programming, Additivity and Convexity -- Removal and Contraction for n-Dimensional Generalized Maps -- The Generation of N Dimensional Shape Primitives -- Geometric Measures on Arbitrary Dimensional Digital Surfaces -- Nonlinear Optimization for Polygonalization -- A Representation for Abstract Simplicial Complexes: An Analysis and a Comparison -- A Computation of a Crystalline Flow Starting from Non-admissible Polygon Using Expanding Selfsimilar Solutions -- Morphological Image Reconstruction with Criterion from Labelled Markers -- Intertwined Digital Rays in Discrete Radon Projections Pooled over Adjacent Prime Sized Arrays -- Power Law Dependencies to Detect Regions of Interest -- Speed Up of Shape from Shading Using Graduated Non-convexity -- Tissue Reconstruction Based on Deformation of Dual Simplex Meshes -- Spherical Object Reconstruction Using Simplex Meshes from Sparse Data -- A System for Modelling in Three-Dimensional Discrete Space -- Interactively Visualizing 18-Connected Object Boundaries in Huge Data Volumes.