| | |
|---|---|
| 1. Record Nr. | UNISA996466424103316 |
| Titolo | Discrete Geometry for Computer Imagery [[electronic resource] ] : 21st IAPR International Conference, DGCI 2019, Marne-la-Vallée, France, March 26–28, 2019, Proceedings / / edited by Michel Couprie, Jean Cousty, Yukiko Kenmochi, Nabil Mustafa |
| Pubbl/distr/stampa | Cham : , : Springer International Publishing : , : Imprint : Springer, , 2019 |
| ISBN | 3-030-14085-7 |
| Edizione | [1st ed. 2019.] |
| Descrizione fisica | 1 online resource (XIV, 496 p. 692 illus., 141 illus. in color.) |
| Collana | Image Processing, Computer Vision, Pattern Recognition, and Graphics ; ; 11414 |
| Disciplina | 006.601516 |
| Soggetti | Computer graphics |
| | Optical data processing |
| | Pattern recognition |
| | Computer science—Mathematics |
| | Algorithms |
| | Computer Graphics |
| | Image Processing and Computer Vision |
| | Pattern Recognition |
| | Math Applications in Computer Science |
| | Algorithm Analysis and Problem Complexity |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Nota di contenuto | Discrete Geometric Models and Transforms -- Digital Two-dimensional Bijective Reflection and Associated Rotation -- Digital Curvature Evolution Model for Image Segmentation -- Rhombic Dodecahedron Grid { Coordinate System and 3D Digital Object Definitions -- Facet Connectedness of Arithmetic Discrete Hyperplanes with Non Zero Shift -- Local Turn-boundedness: a Curvature Control for a Good Digitization -- Distance Transform based on Weight Sequences -- Stochastic Distance Transform -- Discrete Topology -- Filtration Simplification for Persistent Homology via Edge Contraction -- One More Step towards Well-composedness of Cell Complexes over nD |

Pictures -- On the Space between Critical Points -- Rigid Motions in the Cubic Grid: A Discussion on Topological Issues -- Graph-based Models, Analysis and Segmentation -- A New Entropy for Hypergraphs -- Graph-based Segmentation with Local Band Constraints -- A Study of Observation Scales based on Felzenswalb-Huttenlocher Dissimilarity Measure for Hierarchical Segmentation -- The Role of Optimum Connectivity in Image Segmentation: Can the algorithm learn object information during the process? -- On the Degree Sequence of 3-uniform Hypergraph: A New Sufficient Condition -- Optimization of Max-Norm Objective Functions in Image Processing and Computer Vision -- Common Object Discovery as Local Search for Maximum Weight Cliques in a Global Object Similarity Graph -- Reconstruction of the Crossing Type of a Point Set from the Compatible Exchange Graph of Noncrossing Spanning Trees -- Mathematical Morphology -- Vector-based Mathematical Morphology Operations on Polygons Using Straight Skeletons for Digital Pathology -- Morphological Networks for Image De-raining -- Minimal Component-Hypertrees -- Single Scan Granulometry Estimation from an Asymmetric Distance Map -- Recognizing Hierarchical Watersheds -- Shape Representation, Recognition and Analysis -- Straight Line Reconstruction for Fully Materialized Table Extraction in Degraded Document Images -- A Spatial Convexity Descriptor for Object Enlacement -- The Propagating Skeleton: A Robust Detail-preserving Approach -- Non-Centered Voronoi Skeletons -- Dual Approaches for Elliptic Hough Transform: Eccentricity/Orientation vs Center based -- Digital Plane Recognition with Fewer Probes -- Geometric Computation -- Convex and Concave Vertices on a Simple Closed Curve in the Triangular Grid -- Efficient Algorithms to Test Digital Convexity -- Compact Packings of the Plane with Three Sizes of Discs -- Convex Aggregation Problems in 2 -- Polygon Approximations of the Euclidean Circles on the Square Grid by Broadcasting Sequences -- Unfolding Level 1 Menger Polycubes of Arbitrary Size with Help of Outer Faces -- A Discrete Bisector Function Based on Annulus -- Average Curve of n Digital Curves.

| Sommario/riassunto | This book constitutes the thoroughly refereed proceedings of the 21st IAPR International Conference on Discrete Geometry for Computer Imagery, DGCI 2019, held in Marne-la-Vallée, France, in March 2019. The 38 full papers were carefully selected from 50 submissions. The papers are organized in topical sections on discrete geometric models and transforms; discrete topology; graph-based models, analysis and segmentation; mathematical morphology; shape representation, recognition and analysis; and geometric computation. |