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Nota di contenuto Flat Morphological Operators on Arbitrary Power Lattices -- Quantification of the Spatial Distribution of Line Segments with Applications to CAD of Chest X-Ray CT Images -- Fan Clouds - An Alternative to Meshes -- Combinatorial and Geometric Problems Related to Digital Halftoning -- All Points Considered: A Maximum Likelihood Method for Motion Recovery -- Distance Map Based Enhancement for Interpolated Images -- Multigrid Convergence and Surface Area Estimation -- Geometric Structure and Randomness in Texture Analysis and Synthesis -- Morphological Texture Analysis Using Optimization of Structuring Elements -- Unifying Quantitative, Semi-quantitative and Qualitative Spatial Relation Knowledge Representations Using Mathematical Morphology -- A New Class of Morphological Pyramids for Multiresolution Image Analysis -- Root Images of Median Filters — Semi-topological Approach -- Medial Set, Boundary, and Topology of Random Point Sets -- Scale-Based Corner Extraction of a Contour Figure Using a Crystalline Flow -- Hyperfigures and Their Interpretations -- Polygon Decomposition Based on the Straight Line Skeleton -- Reestablishing Consistency of Uncertain

Geometric Relations in Digital Images -- Inverse Quantization for Resolution Conversion -- Discrepancy-Based Digital Halftoning: Automatic Evaluation and Optimization -- Deriving Topological Representations from Edge Images -- Calibration of Panoramic Cameras Using 3D Scene Information -- Quantitative Depth Recovery from Time-Varying Optical Flow in a Kalman Filter Framework -- From Digital Plane Segmentation to Polyhedral Representation -- Lines as the Fundamental Unit of Vision -- Topological Analysis and Characterization of Discrete Scalar Fields -- External versus Internal Parameterizations for Lengths of Curves with Nonuniform Samplings -- Denoising Images: Non-linear Leap-Frog for Shape and Light-Source Recovery.

Sommario/riassunto	This book constitutes the thoroughly refereed post-proceedings of the 11th International Workshop on Theoretical Foundations of Computer Vision, held in Dagstuhl Castle, Germany in April 2002. The 27 revised full papers presented went through two rounds of reviewing and improvement and assess the state of the art in geometry, morphology, and computational imaging. The papers are organized in sections on geometry - models and algorithms; property measurement in the grid and on finite samples; features, shape, and morphology; and computer vision and scene analysis.